THE SOCIAL AND PHYSICAL ENVIRONMENT OF RESIDENTIAL BLOCKS, CRIME AND CITIZENS' PARTICIPATION IN BLOCK ASSOCIATIONS

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TABLE OF CONTENTS

[PAGE NUMBERS MAY BE OFF DUE TO DIGITAL FORMATTING]

LIST OF TABLES

LIST OF FIGURES

THE SOCIAL AND PHYSICAL ENVIRONMENT OF RESIDENTIAL BLOCKS, CRIME AND CITIZENS' PARTICIPATION IN BLOCK ASSOCIATIONS

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ABSTRACT

This is the first study to systematically examine both the physical and social context of crime, fear and citizen participation in community organizations. A theoretical framework for understanding the relationships of the permanent and transient social and physical environment to participation in block associations and crime prevention is presented. Thirty-five organized blocks and 13 unorganized blocks were selected from three working-class urban neighborhoods. Data were obtained from four sources: a telephone survey of 1,081 randomly sampled residents, a survey of 469 block association members, block-level police records of reported crimes, and a new procedure measuring physical signs of disorder, territoriality and the built environment. The Block Environmental Inventory correlated significantly with demographics, crime, the social climate, and participation. Block association members had stronger community ties and engaged in more crime prevention activities and positive block social behaviors than nonmembers and had more positive affective attitudes toward their block. Members were more critical of disorder problems on their block than nonmembers. Comparing organized and nonorganized blocks, there were no significant differences in demographics or crime but there were differences in the built and transient environment and social climate. Although the crime and demographic portions of the proposed framework were

unsupported, many block physical and social environmental factors correlated significantly with participation in block associations and with collective and individual crime prevention activities. The built environment, territorial functioning, and the social climate contributed significant variance to a series of regression equations explaining up to 54% of the variance in block association participation. The results suggest that perceived and actual problems, or lacks, in the transient physical environment may serve as "catalysts" for participation, but that block social cohesion may be an even more effective "enabler" of participation. The relationship between community organization, crime, and fear remains unclear. But, unlike victimization prevention programs, block associations appear to induce greater social cohesion and awareness of problems without greater fear. Implications for participation and empowerment theory, for community organizing practice, for understanding destructive community reactions to deviance, and for future research are discussed.

"In some countries, the inhabitants seem unwilling to avail themselves of the political priveleges which the law gives them; it would seem that they set too high a value upon their time to spend it on the interests of the community... But if an American were condemned to confine his activities to his own affairs, he would be robbed of one half of his existence; he would feel an immense void in the life which he is accustomed to lead, and his wretchedness would be unbearable...

...Americans of all ages, all stations in life, and all types of disposition are forever forming associations... In every case, at the head of any new undertaking, where in France you would find the government or in England some territorial magnate, in the United States you are sure to find an association."

-- Alexis de Tocqueville

"All you is is a gang! (You have no standing in this community.)… You don't get elected to the block association!"

-- Hector, a corrupt former narcotics officer to Juan "the Bullet," an East Greenwich Village drug gang leader (from the film "Mixed Blood")

I. INTRODUCTION

Objectives of the Study

In spite of its promise as an area of both study and intervention, research on community organization, crime, and the social and physical environment has not kept pace with theoretical speculation. Without an empirical test and more specific understanding of the contextual reasons why residents get involved (or do not get involved) in their community and what the various individual and community impacts of that involvement are, it is difficult to design programs or

policies to encourage the development and maintenance of voluntary organizations that can help deter crime, reduce fear or improve the quality of community life.

The main objective of this study is to present and test a new framework for understanding how community factors are related to collective participation in residential block associations. Hence, the dissertation will identify variables that are associated with community organizations that can remain viable even in high-crime, lower-income neighborhoods. It is in such communities, where collective action to address social problems is most needed, that reported rates of participation are typically the lowest. The present study also introduces and tests the reliability and predictive validity of a new method of objectively measuring the physical environment of residential blocks. Other independent variable sets in the block-level analysis of participation are demographics, crime rate, and social climate.

In sum, this dissertation aims to provide both practical and theoretical knowledge regarding the following questions: (1) Why do some communities react to the threat of crime through collective participation in community development, while others engage in vigilantism or individual protections, or withdraw, or do not react at all? (2) What are the differences between members and nonmembers of block associations in community-focused attitudes, perceptions and behaviors? (3) What are the differences between organized and nonorganized blocks in the social climates represented by those same variables, in reported crime and victimization rates, in attributes of the built and transient

physical environment associated with crime and social disorder, and in those associated with territorial control? (4) How are the various physical and social environmental characteristics of blocks interrelated? (5) Can the physical environment of residential blocks be measured using a more objective (independent, reliable and valid) method than past reliance upon resident surveys?

The answers to these questions should be of interest to three principal audiences: (1) criminal justice officials and other urban policy administrators (especially those dealing with community cooperation or citizen voluntarism); (2) community leaders and organizers concerned with mobilizing and maintaining citizen participation in crime prevention and other activities; (3) scholars, across a range of disciplines, who are interested in citizen participation and empowerment, neighborhood self-help, crime prevention, or social and psychological reactions to deviance and to the physical environment of communities.

Structure of the Introduction

The following review of the literature begins with a broad examination of why citizen participation has been of interest historically and why the ecological context of participation should be of interest, particularly to community-oriented psychologists. The next section presents an overview of the proposed community-level theory of participation, followed by a more detailed explanation of the theoretical and empirical basis for each set of variables in the study: First, I will examine the theoretical relevance to participation of such physical

environmental domains as the built environment and more transient symbols of disorder and territoriality. Second, several block social climate concepts will be presented. Third, I will discuss how participation may be related to local crime and to fear of crime. Fourth, the ecological validity of the streetblock level of conceptualization and the impact of block associations are explained. After that, I will consider how the present study also represents a needed empirical test of two theories of destructive social reactions to deviance, or perceived community "threat": vigilantism and "moral enterprise." The Introduction concludes with a review of some of the major problems in measuring each type of contextual variable.

Citizen Participation: Vintage Wine in a New Bottle?

Although Americans have long been characterized by a rugged, but lonely individualism (Riesman, 1961), that identity masks an even longer tradition of communitarian commitment, assistance and participation. Indeed, more than 150 years ago, Tocqueville untangled this apparent paradox by recognizing our moral and practical interdependence (what we would now call the social ecology of the community) and that it is precisely Americans' unique sense of personal efficacy and self-interest which continues to make us participate, more than most countries, in civic associations engaged in solving community problems (Verba, Nie, & Kim, 1978). Furthermore, Tocqueville argued, it is that voluntary act of local civic participation which transforms selfish motives into a true sense of public responsibility and commitment. The American, he wrote, "invests his ambition and his future" in his community. "[I]n the restricted sphere within his

scope, he learns to rule society; he gets to know those formalities without which freedom can advance only through revolutions, and becoming imbued with their spirit, develops a taste for order, understands the harmony of powers, and in the end accumulates clear, practical ideas about the nature of his duties and the extent of his rights" (Tocqueville, 1835/1969, p.70).

Compared to the industrialized nations of today or even the Europe of his day, however, Tocqueville was observing an America made up of relatively small, scattered, independent and autonomous communities. He presaged two dangers in the new local participatory democracy (Sennett, 1979): (1) It could lead to mob rule and vigilantism against deviants, dissidents or "outsiders." (2) If the scope of this civic-mindedness were to become centralized much beyond what could be achieved in one's own local community, the resulting egalitarian society would make people complacent or else its failure would dash their hopes. In either case, they would eventually become apathetic and uncommitted.

Since Tocqueville, other cultural theorists (Bellah, Madsen, Sullivan, Swindler & Tipton, 1986; Gans, 1967; Riesman, 1961; Unger, 1975) have, from different perspectives and with different voices, also described the essential Western (and, in particular, American) character as torn between a strong sense of autonomy and self-reliance and the inevitable need for social interaction, support and sharing - our ultimate interdependence in the most modern of societies. Participation in community civic organizations may provide one with a ready method of simultaneously expressing those competing needs for individuality and "communitas." It allows one to take some measure of real

control over one's own life while working collectively to solve immediate problems of the community. Furthermore, unlike the countless "top-down" government and corporate programs with similar aims, participation serves this purpose through citizens' own initiatives and at a small and proximate enough level to the individual so as not to be overly daunting.

From this historical and comparative perspective, it is not so surprising that interest in participation in grass-roots community organizations and other "mediating structures" has increased in recent years in tandem with the centralization of political, economic, and human service authority in our mass society. As Tocqueville feared, even democratically centralized authority has left some of us with a debilitating sense of powerlessness (Seligman, 1975) and others with such a narrow sense of individualism that it threatens the essential communitarian spirit upon which the society as a whole depends (Bellah, et al., 1985). Participation is thus being rediscovered as an antidote to the great psychological menaces of our time and culture: the authoritarian personality, learned helplessness, and the egocentric "me generation" (Riessman, 1986). Much of the recent reformation of the human services has revolved around participatory strategies for organization development and restructuring (Toch & Grant, 1982). Furthermore, there is currently a plethora of legislative interest in promoting citizen participation in community service (Vincent & Wiecking, 1989).

Like the more ambiguous concept of "empowerment," citizen participation has gained particular interest among community psychologists for several reasons. First, its mandate by liberals (Moynihan, 1969) and its subsequent

confusion with anti-government "voluntarism" by conservatives has given research and interventions with an explicitly participatory focus uncommon bipartisan political support. Second, participation and empowerment are seen as having great heuristic potential as guiding principles for theory, research and practice across the many settings and levels of analysis encompassed by the field (Heller, Price, Reinharz, Riger & Wandersman, 1984; Rappaport, 1981). The interest of some community researchers (e.g., Florin & Wandersman, 1984; Wandersman, Florin, Chavis, Rich & Prestby, 1985) in participation has been inspired by findings that there are important individual and community benefits from participation (including individual and community empowerment by giving residents a measure of control over their immediate environment), but that relatively few people actively participate when given the opportunity. Unfortunately, much of the research on participation has been limited by a scarcity of the same sort of integrative contextual or "ecological" approach widely advocated by community psychologists (Heller, 1989; Heller, Price, Reinharz, Riger & Wandersman, 1984; Levine & Perkins, 1987; Rappapport, 1977; Tricket, Kelly & Vincent, 1985). Research has uncovered interesting information on individual psychological dimensions of participation (cf. Florin & Wandersman, 1984). The fact that participation is distributed within urban areas in fairly uneven cultural and geographic patterns (Heller et al., 1984; Podolefsky, 1983), however, suggests that many of the factors related to participation may reside at the community level. (It seems unlikely that such patterns may be explained entirely by self-selection.) A community perspective on participation thus demands

careful consideration of their social and environmental context.

For no domain of behavior are the social and physical environment more significant and a community-level analysis more pertinent than for citizen participation. In addition, no issue is more often a focus of community concern than crime, especially in urban areas (Clark, Chavis, & Glunt, 1988; Flanagan & Jamieson, 1988; Miller, Tsemberis, Malia, & Grega, 1980). Therefore, the present study explores the crime-related physical and social environment of urban neighborhoods as an ecological context of collective mechanisms for resident participation, namely the formation and functioning of block associations. In essence, instead of asking only the question, "What is it about certain individuals that makes them try to change their environment?," this dissertation asks, "What characteristics of community environments are related to people's participation in collective community change?" These questions imply, not only different levels of analysis, but the possibility of cyclical or bidirectional causality between collective participation and community context. Although the latter is clearly affected by the former, most of the present analyses treat contextual factors as predictors of participation in voluntary block associations and, secondarily, in crime prevention activities.

A FRAMEWORK OF COMMUNITY FACTORS RELATED TO PARTICIPATION

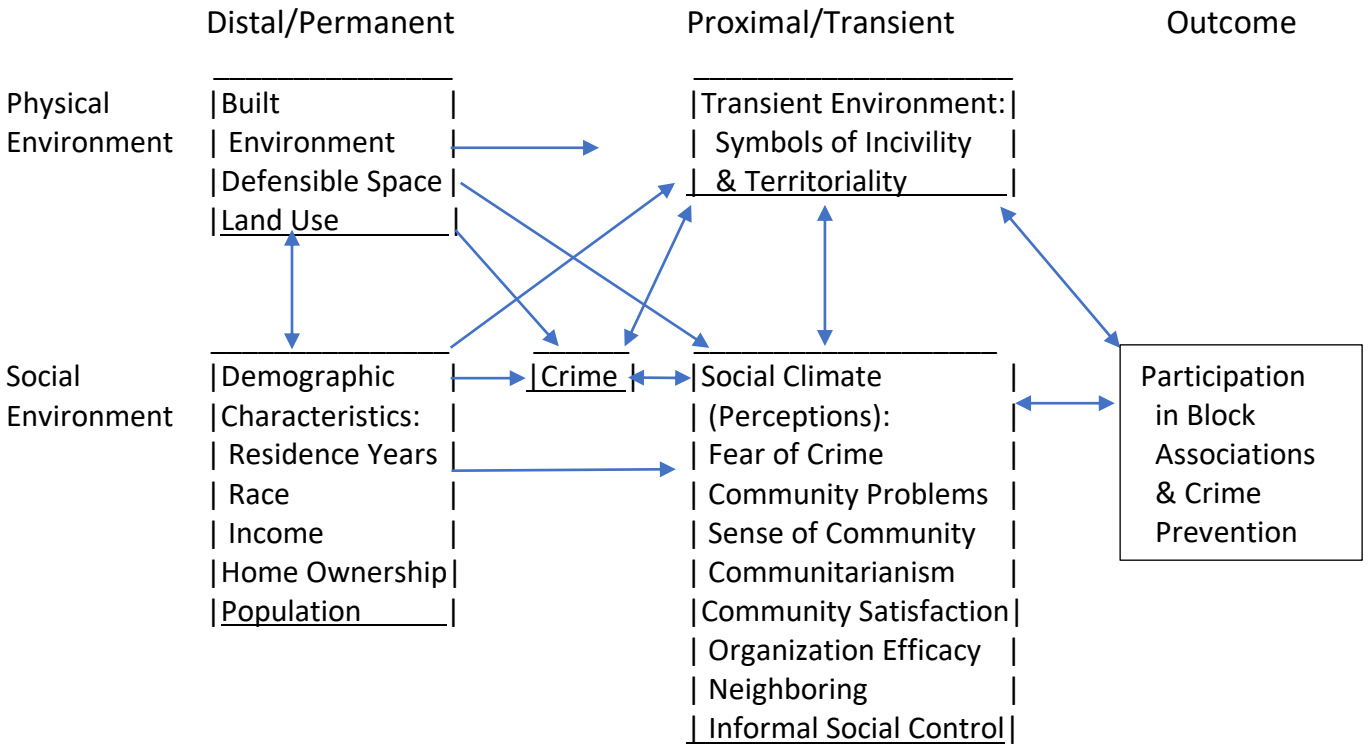
The study of citizen participation is clearly a complicated enterprise. In the present study, crime is seen as the outgrowth of particular built environmental and demographic characteristics; crime, in turn, is seen as an important shaper of residents' perceptions of their block and of the more transient social and

physical environment; these block-level contextual characteristics are, in turn, seen as key predictors of the evolution or nondevelopment of block organizations. Figure 1 outlines the proposed theoretical framework in more detail and the five broad clusters of predictor variables are described below.

First, the demographic characteristics and built environment of the block describe the more permanent attributes of the setting and provide the most distal correlates of participation in the theory. In general, having greater resources and investment in the community (e.g., home ownership, socioeconomic status) may make it easier to participate and minority status may make it more necessary. In addition, architectural and urban planning features of the built environment that facilitate social interaction and a proprietary sense among residents may increase participation. These features have been labelled "defensible space" and include smaller blocks and buildings and real and symbolic barriers that define shared private space.

The next stage in the theory is the level of officially reported "street" crime and surveyed victimization on the block. Crime may be influenced by the first two clusters. It is also thought to be a major reason why many people participate in block associations (most of which are involved in one or more crime control activities). Although crime is expected to act as a catalyst for greater participation, it was placed in a more distal and permanent position in the theory than the transient environment, however, because crime has proved such a difficult problem for police and communities to solve and its impact on behavior is mediated through residents' often inaccurate perceptions (Taylor & Hale, 1986).

Figure I. Contextual Determinants of Participation in Block Associations and Crime Prevention



The more transient physical environment and transient social environment (social climate) of the block make up the last and most proximate contextual correlates of participation. The social climate of a community consists of collective perceptions, attitudes and behaviors. If residents perceive problems, they may participate to solve them. Social cohesion, which promotes greater social interaction, information sharing, and feelings of solidarity, may make residents even more likely to solve their problems collectively. Just as the social climate contains both negative and positive features, the transient physical environment includes both signs of disorder, or "incivilities" (e.g., litter, graffiti) and symbols of residential territorial behavior (e.g., plantings, decorations). Many residents join neighborhood improvement associations in order to reduce physical incivilities on the block. Territorial markers are thought to enhance, as well as symbolize, social cohesion and may therefore increase participation.

Finally, the bidirectional arrows in Figure 1 reflect an understanding that the sets of variables may influence each other in multiple and reciprocal ways. For example, participation may also influence the transient physical and social environment (which influence each other), and either directly or through them, crime. It must be stressed that the present analysis does not attempt to test this theory in its entirety, however. The primary purpose of this study is not to focus on the complex, systemic relationships among the contextual factors but to treat them as independent variables and examine their comparative relationships to collective participation. Nor will the results of this study necessarily imply causal relationships, except where the independent variable can be construed as more

"permanent" than the predicted variable. A more detailed review of the literature underpinning the variables in the study follows.

THE PHYSICAL, SOCIAL AND CRIME-RELATED CONTEXT OF PARTICIPATION

Demographic Influences

According to a review of the literature (Heller et al., 1984), certain demographic variables have been found to be related to higher levels of civic participation. For example, blacks have been found to participate more than whites at the same income level (Williams, Babchuk & Johnson, 1973). This may be due to the relative unavailabilility of less formal avenues for redress of grievances. Otherwise, the general effect of demographics on participation is that greater resources and material interest in the community (in the form of household income, education, home ownership and length of residence) tend to both motivate and allow residents (in terms of skills, time and cost) to enhance their built and transient environment and, thus, to participate (Hyman & Wright, 1971).

The tendency for social and environmental (and thus participatory) needs to be lower in higher income areas represents a countervailing influence, however. For example, although findings on urban crime patterns by income is inconsistent (Georges-Abeyie & Harries, 1980), greater resources may reduce crime directly by decreasing local financial needs and frustrations and increasing local job opportunities. Resources may also reduce crime indirectly by enhancing the social and physical environment and increasing participation. Although these

forces may generally outweigh the countereffect of greater resources as targets for greater crime, neighborhoods that are subject to rapid economic change (even upgrading, or gentrification) are susceptible to high crime rates (Taylor & Covington, 1988). A similar case could be made for other social effects of differential demography. Thus, the indirect effects of race and resources on participation remain unclear.

Other demographic variables that could influence collective participation are estimated block population and nonresidential land uses, such as stores, vacant lots, and institutional property (churches, schools, etc.). Ecological "manning" and grass-roots organizing theories might also suggest that fewer residents in smaller buildings should increase the average level of participation in the group. According to Barker and his colleagues (see, e.g., Barker & Gump, 1964) settings that are underpopulated, given the number of tasks or roles required to operate the setting, elicit deeper involvement (more responsibility, even more behavior) on the part of the average setting occupant. Similarly, Kahn (1982) noted that it is easier to organize a community and to delegate responsibilities and develop leadership if one starts with a smaller group of interested residents. Because nonresidential property can be a source of block problems (e.g., youths loitering in front of stores, trash collecting in vacant lots, church-goers using up parking spaces) that must be dealt with, and may also provide a place for formal or informal congregation of adult residents, it may be positively related to participation in block associations.

The Built Environment

The influence of the neighborhood physical environment on crime, fear, and related social behaviors is well established (Taylor, 1987, 1988). Except for community responses to environmental hazards (Cook, 1983; Edelstein & Wandersman, 1987; Erikson, 1976; Gibbs, 1983), there is little literature on the physical context of citizen participation, however. Therefore, it will be useful to review some principles of neighborhood environmental criminology and their possible relevance to participation.

There are permanent characteristics of the physical environment that are directly related to residents' feelings of vulnerability and a criminal's ability to strike. These may be divided into two types: "macro" design (arrangement of buildings and street layout) and "micro" design (smaller features which may be added to the macro design). On the macro side, Jacobs (1961) first proposed the idea that certain urban planning principles might reduce crime in residential areas. For example, in studying residential streets in Greenwich Village, New York, she observed that the safest areas appeared to be buildings that were physically oriented for natural surveillance by residents (including streets that are visible from first-floor windows and not so wide that neighbors across the street would not notice a prowler), public and private spaces that were delimited into clearly differentiated domains and public spaces placed in proximity to high-traffic areas. Newman (1972, 1975) took the architectural approach to environmental criminology further and coined the phrase, "defensible space." He suggested that certain physical features in the environment, such as barriers to discourage entry and divide public space into manageable zones, would encourage residents to

exercise territorial control. This, in turn, would reduce crime and fear. The anti-crime design feature most associated with Newman is keeping the size of residential buildings (especially public housing) small and low-rise (Newman & Frank, 1982). The possible effect of block size on collective participation is discussed above under demographics.

Defensible space theory may have focused originally on large and permanent features of the architectural environment, but smaller and more or less malleable features are just as relevant. "Micro" defensible space consists of surveillance aids and barriers to entry. "Real" barriers include physical objects, such as walls, fences, gates, or security bars, that impede either entry into or egress from the criminal's target. "Symbolic" barriers, on the other hand, such as low walls or railings, do not so much impede access as symbolize where public space ends and private space begins. Surveillance opportunities are enhanced by such environmental features as outside lighting, sight lines, and places to sit outdoors. Although one study found defensible space to have a limited influence on the residential social climate (Merry, 1981) and another study found different forms of defensible space to have different (both positive and negative) effects on perceived crime and disorder (Perkins, Meeks & Taylor, 1989), other research has found certain defensible space features to be related to lower fear, higher informal social control and, at least temporarily, a lower crime rate (Fowler & Mangione, 1986; Taylor, Gottfredson & Brower, 1984). Many of the features of defensible space are explicitly designed to encourage greater social contact among neighbors and a proprietary interest in the community. It is in this way that

architecture can encourage participation. The community of interest to Newman and other macro defensible space researchers (e.g., Merry, 1981) has been public housing projects. The present study is one of the first to examine how applicable both micro and macro principles are to private communities.

The permanent context is not the prime focus of this study, however. Of greater interest is the extent to which the more transient and malleable social and physical environment may be related to citizen participation over and above any demographic, built environment and crime effects. I will now consider these key, proximal variables in more detail before returning to crime as a possible catalyst for participation.

The Transient Physical Environment

Territoriality. Brown and Altman (1981) applied the social psychological concept of privacy regulation, or the boundary maintenance process of selectively including or excluding certain people and behavior depending upon the situation (Altman, 1975), to neighborhood crime and crime prevention. A key aspect of their formulation was the distinction between shared "public" and "secondary" territories, on the one hand, and "primary" territories, on the other. Primary territories are mainly in or very near one's home and so constitute the main settings of the present study. Most people spend the greatest amount of time in their primary territory. It is functionally and symbolically central to one's everyday life and so one is more likely to defend one's primary territory. In more public territories, most of us would simply move to avoid a threat. Since there may be greater costs to escape from one's primary territory, territorial behaviors and

symbolic and real barriers and markers are used to stake one's claim and fend off intruders.

Thus, the concept of "territorial functioning" (Taylor, 1988) represents a broad class of transactions between the environment, on the one hand, and group or individual cognitions, behaviors and sentiments, on the other, for the primary purpose of controlling behavior in a particular place. A key component in theories of territorial functioning involve physical markers which convey nonverbal cues, or messages, of ownership, investment protection, and a separation between one's self or family and "outsiders" (Altman, 1975; Brown & Altman, 1983; Shumaker & Taylor, 1983; Taylor, 1988; Taylor & Stough, 1978). Such markers, which I will refer to as "territoriality," may be manifest in a variety of ways, such as cleaning up, maintaining or beautifying the block (e.g., gardens, trees, shrubs, yard decorations), "personalizing" the physical environment of one's home (e.g., placing the family name on the front door), or inadvertantly leaving such "traces" (Brown & Altman, 1981) as a toy on the lawn or the sound of a dog. Territorial markers tell the intruder that the space is closely monitored.

According to Taylor (1988), there is considerable variation in human territorial functioning across and within neighborhoods. For example, a breakdown in informal social control is expected near the territorial boundaries of an area and where there are "gaps" in the residential topography, such as parks, playgrounds, and public buildings. This may be due to the prevalence of strangers along boundaries and gaps (which reduces the likelihood of bystander intervention and increases the chances that one of the strangers is a malefactor). This is

supported by Merry's (1981) finding that residents of a housing project perceived the most dangerous areas to be youth "hang outs" located in public areas often near the edge of the community.

Territorial markers have been shown to be associated with residents' perceptions of fewer social and physical incivilities and crime-related problems (Craik & Appleyard, 1980). This relationship is significant even after controlling for socioeconomic status and home ownership (Perkins, Meeks & Taylor, 1989). Territoriality has also been empirically related to greater social interaction, sense of community (Becker, 1977), general social cohesiveness (Brown & Werner, 1985), perceptions of less crime (Brower, Dockett & Taylor, 1983), less fear of crime (Taylor, Gottfredson & Brower, 1984) and even with fewer property violations, especially burglary (Becker, 1977; Brown & Altman, 1983).

Similar to defensible space, territoriality may encourage participation in block associations through improvements in social cohesion. This is expected to be self-reinforcing as one of the common purposes of neighborhood improvement associations is to assist efforts to beautify the community (Cunningham & Kotler, 1983). Thus, theoretically, participation in block associations should be related to greater signs of territoriality (Unger & Wandersman, 1985) but until now this hypothesis has not been tested.

Incivilities. Community organizations often try to prevent or correct "incivilities," which are symbols of social disorder. Physical incivilities can be either passive (such as litter or unkempt housing) or deliberate (such as graffiti and vandalism). Social incivilities include such visible signs of disorder as

prostitutes, drug dealers, or youth gangs loitering on the street. (As will be explained in the methods section, the present focus is on physical rather than social incivilities.) Specific incivilities have been empirically linked to residents' fear of crime (Ahlbrandt & Cunningham, 1979; Reppetto, 1974; Skogan & Maxfield, 1981; Taylor, Gottfredson & Brower, 1984). The broader theoretical links between incivilities, resident behavior, and ultimately street crime (Wilson & Kelling, 1982) have not been empirically tested, however. Furthermore, police efforts to reduce fear and crime through incivility reduction have met with mixed results (Greene & Taylor, 1988).

Results from the only studies that used independently observed (non-survey) measures (see below) of physical incivilities were mixed. Consistent with survey data from other cities (Taylor & Hale, 1986), Taylor, Shumaker and Gottfredson (1985) found that the relationship between objectively measured incivilities and fear depended largely on two community-level factors: socio-economic status and confidence in the future direction of the neighborhood. The fact that incivilities were only significantly related to fear in poor and deteriorating neighborhoods may be due to greater incidence of incivilities in such neighborhoods. Furthermore, the size of the correlations in that study may have been limited by the procedure, in which raters remained in their cars throughout observation.

In a recent study of 50 blocks in Baltimore using an on-foot block environmental inventory, Perkins, Meeks, and Taylor (1989) found significant block-level links between perceptions of crime and disorder and such objective

physical incivilities as litter, vandalism and graffiti and the observed social incivility, young males "hanging out." Thus, there is some evidence of the importance of incivilities to crime-related perceptions, but further research is required to understand the relationship of incivilities to participation in community organizations.

To summarize the hypothesized relationships of the physical environment to participation in community organizations, defensible space may increase natural surveillance opportunities and encourage social contacts which, in turn may boost participation. The transient physical environment is hypothesized to operate differently, however. Incivilities may lead residents to participate in local voluntary associations in two ways. First, many such organizations engage directly in a variety of clean up efforts. Second, the threat of incivilities makes residents more concerned about the territorial functioning of the community. As they begin to beautify and personalize their properties, organized participation becomes a more efficient means of enhancing the physical territoriality, especially of public property. Success at improving the physical environment may, in turn, "empower" residents with the confidence to address other, more complex, problems which should elicit even greater participation.

The Social Climate

Physical environmental influences on participation in community organizations may operate only under amenable local social conditions. This study focuses on several dimensions of the community social environment, or "climate," which may be related to participation in block associations in different

ways. A primarily individual-level, longitudinal study of block association participation on 17 blocks in Nashville, TN, provides much of the theoretical and empirical background for several of the social climate variables considered here.

Among behavioral dimensions, for example, social contact, particularly in public areas, and informal mutual assistance, or neighboring behavior (Unger & Wandersman, 1982, 1985; Warren, 1986) allow residents to become better acquainted and discuss shared problems. In a stress and coping framework which has recently been applied to the effects of fear of crime on mental health, neighboring is considered a form of local "instrumental social support" (Taylor, Perkins, Shumaker & Meeks, 1989). Unger and Wandersman (1983), focusing on 11 of the blocks in the Nashville study and using a similar survey measure of neighboring as used in the present study, found that greater neighboring behavior prior to organizing a block may facilitate efforts toward forming a block association. In turn, they found that once a block organized, association members engaged in more social interaction, which may lead to more neighboring. In such a mutually supportive relationship, it stands to reason that blocks with greater neighboring may have higher levels of participation.

The other key behavioral dimension of the social environment is informal social control, which is the degree to which residents spontaneously regulate everyday public behaviors and physical conditions within the bounds of their community. Informal social control is similar to collective participation in attempting to maintain community order but it is, by definition, unorganized and generally undemocratic and represents a narrower agenda. Low informal social

control has been linked to increased resident turnover, loss of local commerce, crime and deterioration of the physical environment (Greenberg & Rohe, 1986; Hunter, 1987; Rich, 1980; Shotland & Goodstein, 1984; Skogan & Maxfield, 1981; Wilson & Kelling, 1982). In a descriptive, urban sociological study of community crime prevention in eight neighborhoods in Philadelphia, Chicago and San Francisco, Podolefsky (1983) found that informal social control appeared to be strongest and most important in neighborhoods without much organized crime prevention activity, as if the latter serves to compensate for a lack of the former. Although it is an intriguing and somewhat unexpected finding, it remains to be seen whether it is generalizable to broader-based community organizations.

The remaining dimensions of community social climate are nonbehavioral. For example, it may be argued that a group of residents must have at least some psychological sense of community to be interested in organizing an association and working together (Ahlbrandt & Cunningham, 1979; McMillan & Chavis, 1986). Chavis and Wandersman (1990) have clarified this process at the individual level (in the Nashville data) by showing that, over time, a sense of community can lead, through greater self efficacy, to collective participation. Their results also suggest that participation itself further enhances an individual's sense of community. But it is not clear whether the process operates, or operates in the same way, at the community level.

Other person-community characteristics have been related to citizen participation at the individual level of analysis by Florin and Wandersman (1984), who derived variables based on cognitive social learning concepts (Mischel,

1973). In order not to confuse the individual-level, person-situation variables with the corresponding, block-level social climate variables, the underscored terms will be used to refer to the latter. In the framework developed by Florin and Wandersman (which they adjusted on the basis of factor analysis), "subjective stimulus values" (communitarianism) encompass the importance residents place on the community and on working to improve it. If residents participate more in communities they value, a communitarian climate should encourage greater collective participation. Indeed, in the Nashville study, Florin and Wandersman (1984) found subjective stimulus values to predict individual participation in block associations far better than any other variable they considered. According to Mischel (1973), "expectancies" involve the way people interpret the consequences of possible actions. Florin and Wandersman's (1984) related variable includes both expectancies regarding an individual's own action and, more relevant to the present foci on social climate and collective participation, perceived efficacy of collective action. Although expectancies did not enter Florin and Wandersman's stepwise discriminant analysis, perceived collective efficacy should be related to greater collective participation. Among the social climate variables, communitarianism and perceived efficacy of collective action are the closest ones to the concept of "empowerment" (Rappaport, 1981; Zimmerman and Rappaport, 1988). Collective psychological empowerment is thought to, not only lead to participation in community organizations, but result from it (Heller et al., 1984).

Florin and Wandersman's (1984) version of the variable "encoding strategies" was made up of perception of community crime and other quality-of-life

problems and satisfaction with one's community as a place to live. They found individual block association participation to be modestly associated with less satisfaction with community conditions. Although they found satisfaction and (fewer) perceived problems to load together as a factor, the two variables may be related to participation in different ways. For example, that study found low community satisfaction together with perceived community problems to be related to participation that is geared toward solving those problems, suggesting that the former acts as a catalyst for the latter. One might expect community satisfaction alone, however, to encourage participation by enhancing all of the other variables in the social climate. Being satisfied with one's community may give residents a greater sense of community, communitarianism and collective efficacy and may result in more neighboring behavior, all of which are predicted to lead to greater collective participation. The "encoding" variables are therefore used separately in the present study. One other social climate variable in the theory, fear of crime, is discussed below in the section on reactions to crime.

Florin and Wandersman (1984) conclude that future research should address the the question of "whether individuals who participate are responding to a particular (environmental) influence on their block brought about by strong social or physical characteristics. Here the unit of analysis becomes the block and aggregates of individual data and/or objective ratings of physical characteristics would be examined" (p. 705).

Participation as a Response to Crime

This study's purpose of identifying contextual factors related to collective

participation in block associations is supported by several recent themes in the literature on individual and collective responses to crime. According to reviews of the literature (Dubow, McCabe & Kaplan, 1979; Lewis, 1981), past research on reactions to crime and social disorder tended to focus either on individual behavioral and psychological variables or on institutional or community sociology. Although the relevant sociological, political science and criminal justice literatures have helped shed light on broad contextual factors, such as community social, environmental and economic conditions (Reiss & Tonry, 1986), they have tended to ignore certain key psychological variables. Meanwhile, psychological research on reactions to crime and victimization has concentrated primarily on the passive and debilitating personal reactions of individuals (e.g., avoidance behavior; see, for example, Journal of Social Issues, 39 (2), 40 (1)) rather than on active, organized, and efficacious reactions. The focus of research on individual reactions has included: (1) neighborhood conditions, such as crime rate and crime-associated physical cues (Balkin, 1979; Lewis & Maxfield, 1980), (2) psychological factors, such as differential perceptions, interpretations, or fear of crime (Garofalo & Laub, 1978; Shotland & Goodstein, 1984), and (3) demographic or circumstantial constraints, such as the vulnerability of the poor, women or the elderly (Hindelang et al, 1978; Riger et al, 1982). Consideration of contextual and psychological variables in isolation from each other, however, makes it difficult to compare their relative explanatory power. That is why studies which generalize about the impact of crime solely on the basis of individual reactions to fear and victimization can be misleading.

Furthermore, until recently, "private-minded" reactions to crime (i.e., individual protections, such as installing more locks) had been examined far more thoroughly than "public-minded" responses (Schneider & Schneider, 1977). It is the latter, potentially empowering, type of response to which Durkheim (1933) referred in suggesting that crime unites some communities against the violation of accepted norms. Other communities are atomized by crime because their residents react with fear and isolation (Conklin, 1975). Insight into these divergent responses has begun to emerge from more recent studies, particularly those by Skogan and Maxfield (1981) and Taylor (Perkins & Taylor, 1987; Taylor & Hale, 1986), which focus simultaneously on both individual and community reactions to crime and disorder.

Fear and Participation. The effect of crime on participation in community organizations is complicated by the different ways crime and a host of related environmental factors may be perceived, interpreted, and reacted to on an emotional level. On average, young males are least fearful yet victimized by crime the most, while women and the elderly are victimized less yet perceive higher crime rates and higher personal risk, and are more afraid of street crime. Furthermore, fear levels among most groups are higher than one would predict given relatively low crime and victimization rates (Taylor & Hale, 1986). The failure of fear levels to covary closely with crime and victimization rates begs the question, is "fear of crime" more than fear of crime (Garofalo & Laub, 1978)? There is consistent evidence that crime is perceived as "nested" within a network of community problems (Taylor et al, 1980; Skogan & Maxfield, 1981; Podolefsky

& DuBow, 1981). Fear of crime may have less to do with a rational and objective assessment of victimization risk than with residents' subjective perceptions of, and emotional reactions to, certain "danger cues" in the social and physical environment of their community (Perkins & Taylor, 1987).

Whether fear and other psychological reactions to crime increase or decrease collective participation may depend on whether these concerns can be channeled into healthy community and psychological processes. Recent research suggests that increased fear is associated with a decline in both mental health (Taylor & Perkins, 1988) and the quality and vitality of the residential, commercial and organizational life of the community (Skogan, 1986). Some have suggested that it is the degree of fear that determines the collective response. Fear may be positively and linearly related to individual, defensive behaviors but curvilinearly related to organized action, with the greatest collective participation stimulated by moderate amounts of fear (Cohn, Kidder & Harvey, 1978; Pennell, 1978; Skogan & Maxfield, 1981).

Even among collective responses, the relationship to fear may depend on the way in which the collective response is organized. It is impossible to avoid consideration of bidirectional causality at this point. Hence, the availability of different forms of collective participation (see next section) may serve as a feedback mechanism which helps to regulate both fear of crime and the extent of future participation. For example, Skogan and Maxfield (1981) found fear and exaggeration of the crime problem to be related to neighbors talking about crime and participating in community victimization prevention groups (see also

Rosenbaum, 1988). Unger and Wandersman (1985) have suggested, therefore, that it is "informational support" provided by some community groups which is associated with greater fear. Multi-issue, community development organizations, unlike most victimization prevention groups, tend to focus on emotional and instrumental support as well as providing information about crime and other community problems. Thus, fear may be positively related to participation in collective crime prevention but unrelated, or perhaps even negatively related, to participation in general-issue, community development organizations, such as block associations.

Community Crime Prevention. Similar to community psychology's internal debate between prevention advocates and empowerment advocates (Rappaport, 1981) the field of criminal justice is engaged in a parallel debate. Podolefsky (1983) has identified two general approaches to community crime prevention: "victimization prevention" and "social problems." Victimization prevention, the more traditional and narrow approach, has until recently dominated criminal justice policy on community-level responses to crime. As a result, research has generally focused on the effects of groups organized exclusively around crime (Lavrakas, 1985; Lewis, 1981; Rosenbaum, 1986) rather than on strategies to reduce crime through either community development organizations or environmental change efforts. (An exception to the former is Curtis (1987) and to the latter is Fowler and Mangione (1986).)

Victimization prevention strategies include property engraving, home security surveys, and other "target hardening" tactics, crime information

newsletters and meetings, block or neighborhood "watch" and civilian patrol and escort programs, and such innovative "community-oriented policing" efforts as foot patrol, community substations and police organizing of, or support for civilian programs. Such programs have not been built on a solid foundation of empirical evidence, however. There have also been widespread methodological problems in identifying clear and lasting positive impacts of victimization prevention programs (Rosenbaum, 1986). As recent reviews of the major community crime prevention evaluations amply demonstrated, groups exclusively oriented toward crime prevention, at best, tend to displace rather than deter crime, and the duration even of those successes is unknown (Rosenbaum, 1988; Yin, 1986). Leaders often have difficulty eliciting and maintaining broad participation in such groups, and the success of such efforts is closely related to the socioeconomic conditions of the community. Poor communities usually require more than the short-term, crime-specific solutions offered by community crime prevention activities. Finally, community crime prevention's success seems to depend in large measure on the program employing sufficient outreach strategies and addressing the social and environmental factors that are related to organizational mobilization and maintenance (Yin, 1986; Rosenbaum, 1988). These factors are at the core of the second general approach to community crime prevention: community development.

Given the limited success of the victimization prevention strategies, a broader and more fundamental perspective on crime prevention has emerged from the kind of contextual analysis advocated in the present study. The "community

development" approach (this more positive label is preferred to Podolefsky's term "social problems") addresses the root causes of urban residential crime and fear which are inextricably entangled with the community's social, economic and environmental problems. Community development organizations, which actively involve larger numbers of residents than victimization prevention organizations (Yates, 1973), combat crime and fear through a wide-ranging agenda (Civic Education Foundation, 1985; Curtis, 1987). First, many such organizations, especially at the block and building level, engage directly in one or more of the above formal victimization prevention activities, including the collective promotion of individual protections (Podolefsky, 1983). But they all go beyond that in their implicit or explicit efforts to reduce crime and fear. Second, they enhance the social environment of the neighborhood through meetings, organizing social events and positive programs for youth (Wandersman, Florin, Chavis, Rich & Prestby, 1985). The greater contact and a sense of shared purpose among neighbors can lead to more effective enforcement of local norms and more active "use" of the community by

residents. Third, community development organizations often work to improve the area's physical environment (through clean-up and beautification campaigns, lobbying for better city services, and promoting a sense of community pride; Cunningham & Kotler, 1983). Fourth, some are geared toward improving the local economic environment through the promotion of local commerce or job training and employment programs (Cunningham & Kotler, 1983).

This last element of community development strategies, economic

development, is probably the most difficult to control at the grass-roots level, yet may be the most important for reducing crime. Recent evidence suggests that it is people with a sense of self efficacy but few alternatives who most often turn to crime, rather than those who are alienated and powerless (Ross & Mirowsky, 1987). Hence, lawful employment opportunities may be a necessary, but not sufficient, condition for reducing crime and community disorder. Most jobs, by themselves, do not satisfy or foster a sense of empowerment and a sense of community. Meaningful neighborhood democratic processes and structures provide both hope and action for improved economic and social conditions, on the one hand, and a constructive and collective outlet for all residents' self efficacy, on the other.

The social cohesion and sense of collective efficacy that come with both social and physical manifestations of community organization, order and control may elicit a willingness to "get involved," or, if already involved, to participate even more in the fight against crime and other community problems. A contextual approach, characterized by a self-perpetuating cycle of neighbors vigilantly watching out for community interests, encouraging greater social contact, cohesion, and collective participation, which results in an even greater sense of personal and collective efficacy and so on may therefore be a more promising guide for community development, empowerment and crime control than perspectives which focus solely on individual behavior or attitudes.

BLOCKS AND BLOCK ASSOCIATIONS

In 1950, the Human Dynamics Laboratory at the University of Chicago

helped the Hyde Park-Kenwood Community Conference organize 46 street block-level, general issue voluntary organizations (or "block associations") and train block leaders. Four years later, the Lab studied the blocks that had been organized and found an array of positive community effects for active organizations over less active ones (Sarchet, 1955). In the 40 years since that Chicago project began, block associations have become one of the most common vehicles for both community development and crime prevention (Perkins, 1985; Podolefsky & Dubow, 1981; Washnis, 1976; Yates, 1973). Although the literature on reactions to crime, described in the last section, has recently begun to focus more on the community, as opposed to the individual, level and on community development organizations, it has generally ignored the block level of analysis.

There are several reasons why the block (operationally defined here as the dwellings fronting on a single street between two cross streets or other delimiters) is an important focus for both research and organizing. First, its boundaries are less ambiguous to local inhabitants and more easily defined for research purposes than are neighborhood boundaries (Taylor, 1988). Second, blocks are more culturally homogeneous than larger units, such as neighborhoods and police precincts, and residents are more likely to know and share the same concerns with people from their own block (Gans, 1967). Third, participation rates in block-level organizations have been found to be significantly higher than at any other level of community or political organization (McKenzie, 1923/1970, as cited in Taylor, 1988; Yates, 1973). Fourth, the processes of informal social control and territoriality (Taylor, Gottfredson & Brower, 1984) and formally organized

community crime prevention (Taylor & Gottfredson, 1986) should operate more successfully in the face-to-face setting of the block than in larger social units. All four reasons suggest that blocks may hold greater meaning than cities or even neighborhoods as an ecologically valid unit of analysis.

Ecological validity is the degree to which the research definition of a social area accurately reflects natural boundaries. Ecological validity is critically important when studying community-based attitudes (e.g., sense of community, communitarianism) and behaviors (e.g., neighboring). It is also important when studying residents' reactions to a problem such as street crime which strikes so "close to home." As far as residents (as opposed to researchers) are concerned, crime and fear-related environmental cues are felt more on the block than on the neighborhood level (Taylor, 1987).

In explicating the ecological validity of blocks for research in environmental criminology, Taylor (1987) has suggested that blocks function as ongoing, ecological "behavior settings", in which homeostatic "forces" and environmental features on a particular block facilitate certain kinds of "standing," or normative, behaviors for residents and outsiders alike. Ecological psychologists had not previously considered the ongoing patterns of behavior in blocks and other residential areas as behavior settings. Yet, a recent critique of behavior setting theory (Perkins, Burns, Perry & Nielsen, 1988) supports an expansion of the theory to include more than just regular, but temporary, events and settings. According to Taylor (1987), behavioral territoriality, or informal social control, is a function of these behavior setting "presses," the extent to which subcultural norms

are shared and enforced (Fischer, 1975), and the degree to which the locale is socially and culturally homogeneous. If this is true of informal social control and perhaps other unorganized behavior (e.g., neighboring) and attitudes (e.g., sense of community), ecological validity is just as vital for understanding participation in self-help and other organized voluntary groups, which have more commonly been the focus of behavior setting research (Levine & Perkins, 1987). Coupled with the above evidence that, compared to neighborhoods, blocks are more behaviorally and culturally homogeneous and familiar to their inhabitants, this suggests that it is at the block level of analysis that contextual theories of community participation are most appropriately tested.

It is thus not surprising that, compared to more centralized political or service organizations, block-level organizations seem to have a greater influence on the quality of everyday residential life (Wandersman, Florin, Chavis, Rich & Prestby, 1985; Yates, 1973). Block associations may be thought of as "self help" groups (see Social Policy, volumes 15 (3) (1985), and 18 (2) (1987)) for residents without a singular "special interest." They tend to be task-oriented yet flexible enough to take on uncomplicated activities for which skills and resources are readily available (e.g., street clean-ups, block watch, block parties, youth activities, instrumental support for the elderly and the infirm). Again, the small scale of block associations and the "immediacy" of their problems often provide greater consensus and make changes at the block level more noticeable to residents which may result in greater participation. Although victimization prevention programs often contribute to fear and thus to community disintegration, general

purpose block associations have been found to increase both the neighboring behavior of residents (Unger & Wandersman, 1982, 1983) and their psychological "sense of community" (Chavis, Hogge, McMillan & Wandersman, 1986; Wandersman, Jakubs, & Giamartino, 1981). Block associations can simultaneously promote the "instrumental support" of gesselschaft and the "emotional support" of gemeinschaft. For these reasons, block associations would seem to provide one of the most promising strategies to overcoming the various obstacles to collective action against urban crime and other community problems. Despite this potential, the ecological context of participation in block associations has, until now, not been systematically examined.

CRIME PREVENTION & SOCIAL CONTROL AS VIGILANTISM & AS MORAL ENTERPRISE

There is, at least potentially, a dark and destructive side of informal social control and formal community crime prevention. In both the recent and distant past, groups of citizens banding together to fight a perceived external threat - whether in the person of criminals or merely "undesirables" - have taken the law into their own hands often with unjust consequences (Erikson, 1966; Johnson, 1981; Reider, 1985; Rosenbaum & Sederberg, 1976). The present study may provide clues as to the possible antecedents and effects of modern-day vigilantism (community crime prevention) and the social construction (informal social control) of deviance.

To many observers, the resurgence of vigilantism, in the generally more

law-abiding form of civilian patrols and "watch" programs, is no surprise. They point out that the crime problem in the frontier pioneer culture of the old West - where community vigilantism played a key role in preserving law and order - was, in many ways, more similar to the modern urban crime wave than to crime at any other time or place (Brown, 1976; Johnson, 1981). In reconstructing Victorian era communities in the frontier, the upstanding settlers had to establish "behavioral boundaries" for the community by purging its undesirable elements (Erikson, 1966). This was the express purpose of vigilante groups, whose leadership, then as now, generally consisted of indigenous neighborhood mercantile, civic, and religious leaders, all of whom had a personal stake in repressing criminal and moral deviance (Brown, 1976).

Rosenbaum and Sederberg (1976) define vigilantism as "establishment violence" consisting "of acts or threats of coercion in violation of the formal boundaries of an established sociopolitical order which, however, are intended by the violators to defend that order from some form of subversion" (p.4). The only problem with such a definition is that it excludes the original and likely the most prevalent form of modern vigilance-- ordinary citizens keeping an alert, yet peaceful, watch against nightly danger and malefaction. In fact, the two oldest etymological derivations of vigilance refer to a nocturnal "devotional watching" and "the four watches into which the Romans divided the night" (The Oxford English Dictionary). The O.E.D. definition of "vigilance committee" is thus more pertinent to the present discussion: "a self-appointed committee for the maintenance of justice and order in an imperfectly organized community." Of interest in this study

is whether modern vigilantism (i.e., collective crime prevention activities) is associated with more or less organized communities.

The history of American vigilantism provides a dramatic illustration of the reactionary social construction of crime and deviance (Schur, 1980; Taylor, Walton & Young, 1973). It is from this perspective that the modern day counterpart to vigilante justice, informal social control and formal community crime prevention, may be viewed as widespread forms of "moral enterprise" (Becker, 1963) in reaction to "social conflict" (Brown, 1976). By most accounts, moral enterprise is thought to be mainly in the hands of either single-issue "moral crusaders" (Becker, 1963; Schur, 1980) or the capitalist, ruling-class elite (Quinney, 1974; Taylor, 1982) or both (Hawkins and Tiedeman, 1975). There is rarely any mention of the far more prevalent informal rule enforcement (and, to the extent that enforcement is discretionary, rule creation) among ordinary citizens in their own neighborhoods. In line with the various formulations of moral enterprise, however, collective responses to crime and disorder in the community are usually organized for and supported by the vested interests of vulnerable property owners. A "perceived threat" to the community is identified, often magnified, and collectively defined. It is this local and informal definition of unacceptable behavior, along with the local enforcement of that definition, which determine much of the form and extent of deviance outcomes.

This rule enforcement component of the deviance "labelling" process is half of what Becker (1963) meant in conceptualizing "moral enterprise," the other half being rule creation. What Becker actually had in mind for the former was

professional law-enforcement agents. It can be argued, however, that in reality the two functions are rarely separate. Furthermore, conceptualizing moral enterprise in terms of the collective actions of local residents enables one to relate it to perceived efficacy of collective action, perceptions of crime and disorder (or "perceived threat"), and actual crime and victimization data, all on the same, relatively small, geographic scale. As a highly centralized institution, urban police departments provide little variance across blocks or even neighborhoods and thus, for the present purposes, cannot be used to represent moral enterprise (fortunately, the police should not represent a confounding variable for the same reason).

Until now, the relationship between community-based, collective moral enterprise and such factors as victimization, perceived risk (or "threat"), and the social and physical environment has not been empirically explored. In critiquing the "labelling" approach to deviance sociology, Taylor (1982; Taylor et al, 1973) points out that, while considerable lip-service is paid to "social reactions" to and control of rule-breaking behavior, the immediate and wider origins of such "reactions" and their specific influence on deviance have largely been ignored. In particular, Rosenberg, Stebbins and Turowitz (1982) have assailed labelling theorists for paying little systematic attention to the contextual circumstances under which rule-breaking behavior will be understood as such and provoke reaction.

Lauderdale (1976) summarized Hirschi's (1973) objections to the labelling perspective as follows:

> ...the approach has not developed a theory of the reaction process to deviance (Gibbs,1966; Kitsuse, 1972), has not integrated the notion of deviance into a theory of social change (Lemert, 1967; Schervish, 1973), has not developed conceptual precision or constructed detailed analyses of the conditions under which a given principle might hold (Manning, 1973), or articulated theoretically the process by which "insiders" assign and maintain the deviant's low social and moral status (which could provide a theoretical and empirical link for studies of secondary deviation and organized social control activities) (p.660).

The present research may shed some light on each of these theoretical problems. Furthermore, unlike Lauderdale's study, it avoids the contrivances of the laboratory situation. Laboratory experiments, for all their elegance and control, do not provide sufficient external validity to tap the "real-life" contextual antecedents and effects of "real-life" moral enterprise.

PROBLEMS IN MEASURING CONTEXT

The Physical Environment

Despite the considerable theoretical and empirical attention paid to features of the physical environment thought to be associated with neighborhood crime and fear, few researchers have measured the physical environment directly. Instead, they have generally relied solely on subjective measures. This approach typically involves measuring residents' perceptions of the quality of different aspects of the social and physical setting. Objective (independent and systematic) measures of

the environment are important for several reasons. First, the validity and reliability of asking residents "how much of a problem" certain local conditions are remain unclear (Perkins, Taylor & Meeks, 1989). Second, even if these measurement issues are resolved in one study, other groups in other settings may respond differently. Third, objective measurement of the physical environment is methodologically important because it does not share method variance with survey-based measures of other key variables like perceptions of the physical or social environment or fear of crime.

Finally, objective measurement of the physical environment is important because of the role it can play in informing efforts to reduce fear or crime through modifications of environmental design. For example, recent research has found residents' subjective perceptions of physical incivilities to be generally accurate (Perkins, Meeks & Taylor, 1989). If residents' perceptions turn out to be sensitive to environmental change as well, it would suggest that more programs and policies should strive to change environmental conditions. If not, however, research must continue the search for the true loci of both fear and proactive responses to crime.

Unfortunately, there have been only a few different methods developed for the objective assessment of community physical environments. Craik and Appleyard (1980) may have been the first to conduct such systematic objective environmental assessments. They used two separate methods: "environmental professionals" judging photographic slides of street scenes and an assessment inventory completed by trained raters on foot. Brown and Altman (1983) used a procedure that was similar to the latter of the above methods, but added

considerable detail in assessing five different classes of territorial displays (Brown & Altman, 1981). Taylor and his colleagues began by testing the schema of environmental raters using drawings of yards (Brower, Dockett & Taylor, 1983). Their next procedure relied on raters' judgments of color slides of actual properties (Taylor, Gottfredson & Brower, 1984). Taylor then developed a "windshield survey" protocol in which raters directly observed residential blocks from their automobiles (Taylor, Shumaker & Gottfredson, 1985). The latest procedure is focused on both block and property-level assessments of defensible space, territoriality, and incivilities on both residential and nonresidential properties. It is conducted on foot, includes a field listing of all occupied housing units on the block and has been found to exhibit strong interrater reliability and predictive validity (Perkins, Meeks & Taylor, 1989). The method used in the present study is closest in procedure and content to the last one described.

Problems in Measuring Social Climates

The practice of aggregating individual perceptions of oneself or one's group to the group level for the purpose of deriving contextual or social climate variables has been a controversial issue of late (Florin, Giamartino, Kenny & Wandersman, 1990; Shinn, in press). Joyce and Slocum (1984, as cited in Shinn, in press) have identified three criteria for validating aggregate individual perceptions as social climate variables. First, climate variables should exhibit sufficient inter-rater agreement among members within each group. Second, climates should show reliable "differentiation," or variance, between groups on measures collected at the individual level. Third, there should be predictable

relationships between climate and other variables at the group or individual level.

All three of these criteria were met in a study of group influence and organizational climate in block associations (Florin, Giamartino, Kenny & Wandersman, 1989). Most of the climate variables used in that study were different from those in the present study, however. The validity of the social climate portion of the present analyses therefore hinges on the degrees to which individuals within blocks agree, blocks vary, and climate variables correlate with other variables. If social climate variables show nonindepence (by block) at the individual level and are strongly related to other parts of the theory, especially to other sources of data, it would lend support to them as valid measures at the block level of conceptualization.

Another problem in the measurement of some social climate variables, even at the individual level of analysis, is a lack of consensus in the literature over what questions to use and how to word them. For example, those studying fear of crime cannot even agree on what constitutes fear (Perkins & Taylor, 1987; Taylor & Hale, 1986). Some studies have included more cognitive reactions to crime, such as risk assessment, or more chronic reactions, such as worry about victimization, in their operationalization of fear. In the present study, fear refers only to the component around which the most consensus has built: the transient emotional reaction to crime (i.e., feeling unsafe). Greenberg and Rohe (1986) note that informal social control has also been measured many different ways, including as a perception of neighbor behavior (Bennett & Lavrakas, 1988; Fowler & Mangione, 1986; Gans, 1962) and as a self-reported behavior (Greenberg, Rohe & Williams, 1982; Taylor,

Gottfredson & Brower, 1984). The former approach was adopted in this study and so informal social control is perhaps best viewed as an attitude at the individual level and a group behavior or climate at the contextual (block) level in the present discussion.

Problems in Measuring Crime

Crime rates based on police records of complaints or calls for service and those based on victimization surveys are both prone to measurement problems (O'Brien, 1985). Although the crime reporting and analysis capabilities of police departments have improved considerably over the years, there are still several reasons that official police data tend to be both unreliable and of questionable validity (Harries, 1974). Certain crimes, such as rape, tend to be significantly underreported, often in unpredictable ways. Changes or differences in reported crime may be due to differential reporting practices, political exigencies, or demographic trends. A temporary "increase" in rates may even result from more effective crime control as reporting goes up. Furthermore, crime statistics typically reflect only "serious" (or FBI Part 1 "index") offenses while ignoring a host of minor offenses as well as fear of crime and community disintegration. Finally, crime rates are usually available only on the total of reported index crimes in an entire city or precinct which can obscure crime patterns at the block level. This is not a problem in the present study.

Surveyed victimization rates are generally considered more accurate than official crime rates, but even the best of these, the federally sponsored, annual National Crime Survey, suffers from validity and reliability problems (Levine, 1976;

O'Brien, 1985). Again, personal crime victimizations, such as rape and domestic assault are perhaps not much more likely to be reported to civilian interviewers than to police. On the other hand, victims may be motivated to report (even exaggerate) property crimes to the police for insurance purposes. But there is no monetary motivation in reporting such losses in a victimization survey. Given problems of recall (especially forward "telescoping," or remembering particularly salient events as more recent than they actually occurred), however, some surveyed victimization rates may be overestimated. Thus, triangulation of data (convergence of different sources), provides an important, albeit imperfect, degree of cross-validation of area crime rate (O'Brien, 1985).

II. RATIONALE, HYPOTHESES AND APPROACH

Demographics, the Environment and Participation

Following the framework depicted in Figure 1, demographic variables are mainly being treated as control variables in the present study. Blocks with greater household income, home ownership and length of residence have a greater material stake in the community and are thus expected to have more positive social and environmental features and higher levels of participation in block associations and in crime prevention (especially individual, "target hardening" protections). With regard to racial composition, the literatures on urban crime patterns and on citizen participation suggests that minority blocks should have more crime, more fear and, given that wealthy and middle-class neighborhoods have been excluded, more organized participation. These effects will be tested via group means comparisons

at both the individual (members vs. nonmembers vs. residents of nonorganized blocks) and block (organized vs. unorganized) levels of analysis and correlations at the block level.

Other block-level demographic variables can be derived from the environmental assessment. These include estimated block population, which "manning" theory predicts should be negatively related to participation, and commercial, vacant and other nonresidential property uses. Because nonresidential property can be a source of block problems and also may provide a place for formal or informal gathering, it is predicted to be positively related to participation in block associations.

The Built Environment, Crime and the Transient Environment

Defensible space features, such as lighting and barriers, are expected to help decrease crime and incivilities directly by acting as a deterrent to criminals, vandals and the like. The built environment may have an even greater influence through its effects on the community social climate, however. Defensible space features are predicted to encourage greater use of, and a sense of control over, public areas of the community. This, in turn, should decrease perceived crime and incivilities and fear of crime and increase the display of territorial markers, social cohesion (neighboring, informal social control, block satisfaction, sense of community, communitarianism, perceived block association efficacy), and in that way increase participation in block associations and crime prevention. This last effect should be self-reinforcing insofar as block associations are hypothesized to add to certain "micro" defensible space features, such as lighting, outdoor seating and perhaps

bars on windows. Because of this potential confound, however, these particular built environment variables will be excluded from the regression models predicting participation in block associations.

The relationships among predictors will be examined in the full, block-level correlation matrix. The associations between block association participation and the permanent and transient (below) environment will be tested at the individual and block level through means comparisons and at the block level through correlation and multiple regression analyses. Although causal direction cannot be inferred in these cross-sectional data, the group comparisons of the transient social and physical variables at least allow a "post-test" of pre-existing organization and membership conditions. Although inferentially weak, the demographic variables at least provide a pretest check for selection bias.

The Transient Physical Environment and the Social Climate

The transient physical environment and social climate of blocks are intertwined in complex ways. Territorial markers symbolize, are encouraged by, and may, in turn, cause greater social cohesion, particularly informal social control, neighboring, and sense of community. These same social climate variables may also help to prevent (are negatively correlated with) physical incivilities. Where incivilities do occur, the incivilities are of course perceived. But there may be worse social consequences. Such an environment may also lead residents to perceive more crime problems, make them more fearful, and destroy the social cohesion. Again, these relationships will be examined in the block-level correlation matrix.

Crime and the Transient Environment

Thus, perceived crime problems are thought to be based only partly on actual local crime (reported crime and criminal victimization rates). It is only through these imperfect perceptions of crime problems that actual crime may help to motivate participation in block associations and crime prevention. The rationale is that crime serves as a catalyst, or cue, for participation. Crime is also predicted to have a negative impact on territorial functioning, including both physical markers and social cohesion. Although this may inhibit participation somewhat (see below), crime is considered such an important organizing issue that the net correlation between crime and collective participation is still predicted to be positive.

The analyses comparing organized and nonorganized blocks and those comparing members, nonmembers, and residents of nonorganized blocks predict the opposite result, however. Again, these comparisons are being treated as evaluations of the effects of pre-existing block organization and membership (see the section, "Approach to Data Analysis"). Thus, from the perspective of the community development approach to crime prevention, organized blocks and block association members should experience lower rates of (i.e., be negatively related to) crime and criminal victimization. It is possible that these two opposing forces may offset each other and result in nonsignificant effects in the present, cross-sectional analyses. If not, the results may help to resolve these conflicting hypotheses.

The Transient Environment and Participation

Physical territoriality is expected to encourage (be positively related to) collective participation in much the same way defensible space does. Territorial markers promote social cohesion which encourages participation. This is reinforced

as block associations, in turn, are hypothesized to encourage more territorial markers (particularly such items as public trees or gardens, planters, and possibly even decorations or "personalizations" which may be promoted or distributed by the association).

Similar to crime, incivilities are related to collective participation in more conflicting ways. Physical incivilities may be one of the biggest reasons blocks organize and residents participate (i.e., in order to clean them up). Thus actual incivilities are expected to act as a catalyst (positively correlated) to participation. In analyzing the effects of organization, however, block associations should have even greater success at reducing incivilities than reducing crime and so are hypothesized to have lower rates of incivilities. Again, it is possible that these two opposing forces may offset each other and result in nonsignificant effects.

The Social Climate and Participation

Social cohesion (i.e., block satisfaction, sense of community, communitarianism, perceived block association efficacy, informal social control and neighboring behavior) is expected to encourage (be positively related to) participation in block associations by increasing social interaction and familiarity, by giving residents a sense of shared purpose and by reducing (negative correlation with) obstacles to participation, such as fear of crime. These hypotheses should be reinforced as organized blocks and individual members of block associations are predicted to have lower rates of fear and higher rates of social cohesion as effects of participation.

There are once again conflicting hypotheses for perceived problems,

however. Perceived crime and incivilities are suspected motivating conditions for (positive correlations with) participation. In the group comparisons, on the other hand, participation is expected to result in organized blocks and individual members of block associations having a more favorable perception of (i.e., negatively related to) block problems. These forces may either offset each other or else the results will suggest which one is stronger.

Note that fear of crime, which can be behaviorally debilitating, is predicted to have the opposite effect (negative) on participation as actual crime or perception of crime, which are seen as motivating influences. The hypothesis that fear and participation in block associations and in collective and individual crime prevention are curvilinearly related, with the greatest participation associated with moderate fear, will also be tested.

Participation in Crime Prevention

Participation in community crime prevention activities and individual protective behavior will be examined as dependent variables of secondary interest. Since many block associations organize anti-crime activities, collective crime prevention and participation in block associations are expected to be positively related to each other and to be similarly related to the other variables in the theory. There is historical precedent to doubt the strength of this relationship, however. The experience of anti-crime vigilantism in pioneer society suggests that collective crime prevention (and informal social control) may be associated with less organized, general-issue participation as civilians try to compensate for a lack of formal community organization.

Theories of vigilantism and social reactions to deviance both support the hypothesis that perceived crime problems lead to collective crime prevention (and informal social control). Vigilantism and social reactions theories diverge, however, when it comes to the expected effect on crime and deviance. Vigilantism is expected to act as a deterrent and thus reduce crime. From the perspective of social reactions theory, however, collective crime prevention and informal social control are forms of "moral enterprise" (Becker, 1963) which result in even greater perceived crime and delinquency problems and, through a process of labelling, greater actual deviance (crime and victimization rates).

Individual crime prevention behaviors are expected to be motivated by (positively associated with) higher crime, victimization and fear of crime. This should not be offset much by a crime reduction effect because individual crime prevention is not considered to be very effective at the block level. Group mean crime prevention behaviors will be compared at both the individual level and correlated at the block level with the other variables in the model.

Summary of Hypotheses

With regard to the analyses of variance, compared with nonorganized blocks and nonmembers, respectively, block associations and members are hypothesized to have lower rates of perceived and actual criminal victimization, lower levels of perceived incivilities and fear, higher levels of social cohesion, broadly defined (block satisfaction, sense of community and communitarianism, perceived block association efficacy and informal social control, neighboring behavior and social interaction), and more collective crime prevention activity. Examining the physical

environment at the block level, block associations are also hypothesized to exhibit fewer incivilities and more defensible space and territorial markers.

Next, bivariate correlations between these same variables and participation (in block associations and in crime prevention) are presented. Participation is expected to be positively associated with block social cohesion, defensible space and territorial markers. Participation is also expected to act as a catalyst for (and thus be positively associated with) perceived and actual physical incivilities, perceived and actual block crime, and fear of crime (either linearly or curvilinearly).

Relationships Among Predictors

Block social cohesion, territorial markers, defensible space and low perceived and objective incivilities and low perceived crime are expected to be positively intercorrelated. Block social cohesion, physical territoriality and defensible space are expected to be negatively associated with fear of crime. Criminal victimization and reported crime rates, perceived crime and incivilities and objective incivilities are expected to be positively associated with fear of crime. Fear of crime is predicted to be positively associated with individual protective behavior.

Social cohesion, territorial markers, and defensible space are expected to be positively associated with reported crime and victimization. Perceived crime and quality-of-life problems and objective physical incivilities are expected to be positively associated with reported crime and victimization.

Tests of the Regression Model

The built environment, crime, the social environment and the transient

physical environment are each predicted to contribute significant additional variance to the relationship with participation in block associations, over and above the influence of preceding variables in the framework.

III. PROCEDURES

Summary of Methods

The present data were collected in collaboration with the Block Booster Project, a two-year, multimethod action study of the social effects, organizational dynamics and viability of urban residential block associations. The dual purpose of the Block Booster Project were (1) to examine the role of block associations in community development and crime control and (2) to develop an intervention process and set of training materials to help voluntary associations maintain and strengthen themselves.

This study employs a multi-method research design in order to tap block residents' block-focused social behavior and their subjective appraisal of the block, its problems and its strengths, as well as more objective indicators of crime and the physical environment. Data have been obtained from four sources: (1) a telephone survey of random block residents; (2) an observer-conducted assessment of the physical environment of each block (focusing primarily on crime and fear-related stimuli); (3) police records on reported crime, analyzed at the block level; and (4) a self-administered block association membership survey to provide additional data on the type and extent of organizational characteristics and activities. In addition, a brief, self-administered survey on current organizational

characteristics and a series of more detailed, semi-structured interviews were used as cross-validation that block associations were active and enganged in specific anti-crime and environmental maintenance activities. Both of these measures were completed by a leader from each block association.

Site Selection

City and neighborhoods. New York City was selected, from among several large U.S. metropolitan areas, for its large number and long history of block-level resident associations and for the interest of a well-suited, city-wide civic technical assistance organization to facilitate the project. Twenty-one potential sample neighborhoods throughout New York City were selected on the basis of (1) having increasing robbery and burglary rates (to ensure that crime would be a potentially relevant issue), according to the latest available police reports (1984), and (2) having a sufficient number of active block associations, according to the civic organization's mailing list. Letters with return cards were sent to 1,521 leaders of block associations in these 21 neighborhoods inquiring about their interest in the organization development intervention component of the project (see Discussion) and in their willingness to participate in the research component. Ten percent (n = 151) of the interest cards were returned. In order to ensure that a sufficient number of active block associations would be available, the final selection of study neighborhoods was based on the geographic pattern of the response.

(There is a potential and not altogether understood bias in this neighborhood selection procedure: the high degree of community leader interest in

the study among the neighborhoods chosen suggests either that they (both the leaders and the neighborhoods) were becoming less active and therefore in need of the organizational intervention component or, more likely, that they were already much more actively organized than most neighborhoods in the city. Within the neighborhoods that were chosen, however, a great variety was found in the activity and participation levels of different blocks.)

Three culturally disparate neighborhoods were selected: Bay Ridge, in Brooklyn, is a predominantly white, lower-middle-class neighborhood with the fewest children per surveyed household of the three neighborhoods (.46). East Flatbush, also in Brooklyn, is a working-class neighborhood containing a mixture of Caribbean-born blacks and native American blacks and whites (and having the most children per household: 1.08). The third neighborhood selected is a somewhat more dispersed section of Southeast Queens (including South Jamaica, Springfield Gardens, Hollis, and St. Albans), which is a predominantly black area, ranging from low-income to working class and having .76 children per household, according to the survey. Neighborhoods in Manhattan were avoided since its dense settlement patterns may make it atypical of other U.S. cities.

Block Selection. A total of 48 blocks were selected from these three neighborhoods. Criteria for selection included that blocks be predominantly residential in land use (i.e., more than 50% of listed phone numbers had to be residential and ultimately all blocks selected had nonresidential properties on the corners only) and of moderate population of household units on the block (between 15 and 150), according to the most recent "criss-cross" telephone

directory (listed by street address). Site visits were made to each potential study block to verify that they met these criteria and one other: both the physical layout and land use pattern on the blocks and their adjacent blocks had to be typical of the neighborhood as a whole (for example, if the neighborhood street pattern was a grid with the commercial concentration at the boundary, selected blocks fit that pattern - i.e., with small stores on the corners only - and were not adjacent to the central business district). Dwellings were typically small, single-family houses, duplexes, or very small (four-to-ten-unit) apartment buildings.

Because the overall project included two quasi-experimental design components (a comparison of organized and unorganized blocks and a longitudinal comparison of intervention and nonintervention organized blocks), organized and unorganized blocks were selected in a roughly two-to-one ratio, respectively. The survey results shown in Table 1 confirm that the residents of organized and unorganized blocks did not differ significantly in length of residence, race, income, home ownership, estimated block population, or the presence of commercial or other nonresidential property. (See the "Respondent Sample" section below for further details on sample characteristics and the "Results" section for a comparison of other variables on organized vs. nonorganized blocks and correlational tests of the hypothesized demographic effects on participation in block associations).

Table 1. Organized and Nonorganized Block Demographic Comparisons

	Organized (n=31)	Nonorganized (n=13)	(2-tailed

Demographics	Mean (SD)	Mean (SD)	T[a] p<)
Length of Residence	3.09 (.34)	3.01 (.40)	-.66 (ns)
Proportion Nonwhite	.61 (.41)	.43 (.42)	-1.33 (ns)
Income Level	2.96 (.49)	3.02 (.49)	.39 (ns)
Home Ownership	.66 (.20)	.63 (.25)	-.37 (ns)
Estimated Block Population[b]	.00 (.77)	-.03 (.55)	-.15 (ns)
Commercial Property	.88 (1.07)	1.15 (.99)	.84 (ns)
Other Nonresidential Property	.25 (.57)	.15 (.38)	-.66 (ns)

[a] T-test uses separate variance estimate and adjusted df (alpha =.20).
[b] Estimated Block Population = n of buildings X approximate n of units/building.
Means based on standardized (z-scored) component variables.

Block associations had to be at least one year old, at least minimally active (i.e., holding regular meetings) and committed to participating in the larger action research project. Within each neighborhood, potential organized and unorganized blocks were selected from the same or demographically similar census tracts, but were not so close as to risk "spillover" effects, which have hampered other community crime prevention studies (Bennett & Lavrakas, 1988). In selecting unorganized blocks, a minimum of five adult residents dispersed throughout the length of each candidate block were interviewed to determine the existence of a block association. If any of the residents claimed that the block had a block association, that block was dropped.

Despite these precautions, responses on the resident and block association member surveys and informal follow-up interviews of some residents suggested that

a few of the block organizations were beginning to decline and two "unorganized" blocks were actually in the incipient stages of organizing. Although this situation may be undesirable from an experimental design perspective, it is simply a "fact of life" (and death, or to be more precise, "dormancy") with block associations and is part and parcel of studying or working with them. In an effort to reflect these "real-life" vicissitudes of small-scale voluntary associations, an aggregated and continuous, as opposed to dichotomous, measure of block-level organizational participation was developed for the present analysis (see below).

Telephone Survey

Respondent Sample. For the telephone survey of residents that was conducted on every block, a minimum of 15 and maximum of 90 sample phone numbers were selected in random order on each block from the "criss-cross" directory. Although there was once a considerable class bias involved in many telephone surveys (by missing households that have no phone or are unlisted), that bias is now considered minimal (Babbie, 1986). The survey was conducted over a five week period in the spring of 1985. One selected organized block was accidentally excluded from the survey. The initial sample frame for all 47 blocks was 2,794 potential respondents, 909 of whom were never contacted (due to either being unreachable or not needed) and three of whom were excluded as duplicates of surveyed households. Of the remaining 1,882, 1,081 (57%) completed the survey. Of this final sample, 327 (30%) were active members of 31 different, active block associations, 422 (39%) were nonmembers or inactive members living on those same organized blocks, and 265 (25%) lived on 13 blocks without organizations.

Sixty-seven (6%) lived on 3 blocks with either dormant or incipient block associations as explained above. The number of respondents per block ranged from 10 to 41 with a mean of 23. Sixty-five percent of all respondents were female; 47% were black, 47% were white and the rest were Hispanic, Asian or "other." (Approximately two thirds of the blocks (which tend to be smaller) are predominantly black and the rest (larger blocks) are predominantly white.) Sixty-two percent owned their home. Of the renters, approximately 60% lived in apartment buildings and the rest lived in private homes. Twenty-nine percent were college graduates while 42% had a high school education or less. Sixty percent of the households reported having no children at home. Other demographics can only be interpolated since broad response categories were used: The sample was spread fairly evenly over all adult age categories, with the mean being approximately 42 years old; the median estimated annual family income was approximately $19,000; the median length of residence was approximately 9-1/2 years.

Survey Variables: Overview

The telephone survey protocol can be found in Appendix 1. The survey took approximately 20 minutes to complete and contained 126 items assessing residents' perceptions of block conditions, behavioral and attitudinal aspects of the block social climate, their participation in block association activities (with each of the above divided between general and crime-related factors), recent criminal victimization experiences, demographic variables, and other variables not analyzed for this study. Varimax-rotated factor analyses were first performed by domains of social climate items. The results appear in Appendix 1A and are explained for each variable below.

(Secondary factor analyses of the resulting scales and discrete items appear in the Results section.) A minimum loading of .50 was used as a general criterion for including an item in a scale. With the exception of a few items that had to be left on their own, the a priori scales were generally confirmed as coherent constructs.

All scales were computed using standardized (Z-scored) items to make all item response ranges comparable. Block-level descriptive statistics for all survey variables can be found in Tables 2 and 3. Of particular interest are the range and standard deviation columns, which demonstrate that the social perceptions, behaviors, demographics and criminal victimization used in the present analyses do vary when aggregated to the block level. Table 3 also includes individual-level Cronbach's alpha reliability coefficients for each social climate scale. The mean reliability for the social climate scales was alpha=.70.

Table 2. Block-level Participation, Demographics and Victimization
Unstandardized Ranges, Means and Standard Deviations [a]

Variable	Range	Mean	SD
Participation			
Block Association Dimensions:			
Perceived Activity (0=largely inactive, 2=very active)	.00 to 1.48	.68	.46
Mean Hours Worked per Month	.00 to 3.00	1.03	.84
Level of Responsibility[b]	.00 to .68	.33	.24
Crime Prevention:[c]			
Collective	.00 to .62	.25	.16
Individual Protections	.42 to .84	.63	.10
Demographics			
Average Length of Residence (1=<2 yrs, 2=2-5, 3=5-10, 4=10+)	2.17 to 3.86	3.08	.36
Proportion Nonwhite	.00 to 1.00	.58	.41

HH Income (1=<$10k, 2=$10-20k, 3=$20-30k, 4=$30-40k, 5=>$40k)	2.22 to 4.25	2.96	.47
Proportion Home Owners	.17 to 1.00	.66	.21
<u>Victimization on block</u>			
Proportion Victimized Households	.00 to .40	.17	.09
Indirect Victims (0=none, 1=all)	.04 to .54	.30	.12

[a] The n for each variable is 47 blocks (aggregated from 1,081 adult heads of household). These block-level descriptive statistics are slightly different from their individual-level counterpart due to the different block sizes.
[b] Level of responsibility is derived half from the resident telephone survey and half from the organizational assessment membership survey, the relevant items of which are listed in the section describing the variable, "Participation in Block Associations." The value 0
signifies no block association membership. The maximum value 1 would signify that all respondents on the block have engaged in all levels of responsibility.
[c] 0 = no anti-crime behaviors on block, 1=all respondents engaged in all behaviors.

Table 3. Block-level Unstandardized Social Climate Variable
Ranges, Means, Standard Deviations and Alpha Reliability Coefficients [a]

Variable	Range	Mean	SD	Alpha (n)[b]
Attitudes				
Block Satisfaction (0-2)	.72 to 1.35	1.08	.15	.59 (818)
Fear of Crime (0-2)	.20 to 1.08	.58	.20	.62 (1056)
Sense of Community (0-1)	.59 to .89	.75	.07	.80 (720)
Communitarianism (0-2)	1.30 to 1.88	1.65	.13	.68 (1009)
Perceived B.A. Efficacy (0-2)	1.12 to 1.80	1.49	.15	.82 (901)
Block resident recognition (0-1)	.60 to 1.00	.87	.09	N/A
Behaviors				
Informal Social Control (0-1)	.76 to .98	.90	.05	.59 (720)
Neighboring for Others (0-8)	.63 to 2.64	1.72	.46	
Neighboring Received (0-1)	.31 to .81	.57	.09	
(Total Neighboring)		.76 (999)		
Neighbors Watch After Nbrs. (1-3)	1.79 to 2.91	2.40	.28	N/A
Socialize with Neighbors (0-8)	.44 to 2.07	1.12	.34	N/A
Perceived Problem Conditions				
Perceived Crime Problems (0-2)	.19 to 1.03	.60	.18	.78 (813)
Perceived Incivilities (0-2)	.24 to 1.07	.58	.16	.65 (1052)
Perceived Increased Risk (1-3)	1.59 to 2.28	1.98	.13	N/A
		Mean = .70		

[a] The n for each variable is 47 blocks (aggregated from 1,081 adult heads of household). These block-level descriptive statistics are slightly different from their individual-level counterpart due to the different block sizes. The range of possible responses per item from least to most appears in parentheses.

[b] Cronbach's alpha reliability coefficients were computed at the individual level of analysis for all scales (see Appendix 1A for the results of the primary factor analysis). N/A indicates a single-item construct.

The behavioral outcome variables (participation in block associations and in crime prevention activities), which are functional in nature, and criminal victimization were not factor analyzed or reliability tested. The reason for this is that they are explicitly "cumulative," as opposed to "integrated," scales. In other words, one is only interested in how much participation or criminal victimization a person has experienced. People need not perform several different participation or crime prevention behaviors for those behaviors to belong functionally in one of those scales. In fact, it could be argued that if one has fulfilled a given function one way (e.g., installed new locks), that person may be less likely to perform one of the other behaviors in that scale. Even if that were the case, at the block level especially, the behaviors still all "add up" to high or low participation or crime prevention. Similarly, people need not be victimized by crime in different ways for it to "count." The internal consistency of the component items of each of these scales is thus not important in the present analyses.

Missing values on any of the four dimensions of participation (see below) were treated as a valid 0 value (i.e., reporting no block association on the block in the phone survey resulted in 0 participation for a given individual). Missing values on all other variables were excluded at the individual level. If an individual had more than one third of the component items in a scale missing, the individual was considered missing on that scale. Most of the present analyses use aggregated block-level means on each variable. The accidentally excluded block is the only missing value in the survey data. It was included for the environmental analyses due to the small n at the block level.

Demographic variables (Q1, 139-147). Categorical (nominal and ordinal-level) data was collected on such demographic variables as sex, age, income level, education, race, length of residence, home ownership, type of dwelling (rent vs. own and private home vs. multi-unit building), and number of children in household. At the block level, variables were selected to represent broad demographic domains: socioeconomic status/vested interest in the community (aggregated as (a) mean income level across all block residents and (b) proportion of home owners), race (proportion of black respondents on block), and community stability (mean length of residence). Also at the block level, several items from the environmental inventory (below) are used as demographic variables: estimated block population (i.e., the number of buildings on the block multiplied by the approximate number of units per building) and the amount of commercial, vacant, and other nonresidential property on the block.

Victimization (Q59-65). Household criminal victimization was computed as follows: a household was considered victimized if any household member had been the victim of a crime on the block in the preceding three years (i.e., Q63: 1=1, else=0). On the average block, 17% of the respondent households had been victimized by crime on their block in the previous three years. Indirect, or "vicarious," victimization is the mean of two items (Q64, 65): knowing of a house break and knowing of an assault on the block in the preceding year. On the average block, 43% of the respondents knew of someone on the block whose home had been broken into and 18% knew of someone who had been assaulted on the block.

At the block-level, the mean of this variable was averaged with the mean of

household victimization to form total block victimization. Along with reported crime rate (see below), this variable represents crime in the proposed model and also actual (as opposed to perceived) deviance in the test of the social reactions theory of deviance. In order to keep the duration of the survey manageable, this scale differed from other brief neighborhood crime victimization surveys that are based on the serious victimization section of the National Crime Survey, (see, for example, Perkins & Taylor, 1987; Rosenbaum, Lewis & Grant, 1986; Bennett & Lavrakas, 1988). Of greatest concern is the present survey's open-ended format (as opposed to type-of-crime prompting) and disregard of multiple victimizations.

Social Climate:

General Attitudes and Perceptions Toward the Community

Sense of community (Q7-Q18; coefficient alpha = .80, n = 720). This 12-item scale is based on the measure used by Chavis, Hogge, McMillan and Wandersman (1986) and on McMillan and Chavis' (1986) four-component definition of the construct: membership, influence, need fulfillment and integration, and shared emotional connection. Two separate factor analyses with the present data included sense of community (Table 1A1 and 1A2). Although these analyses confirmed sense of community as distinct from neighboring behavior, informal social control, block satisfaction, and communitarianism, the present sense of community factors did not clearly match Chavis' subscales. Therefore, only the total scale was used here. Three additional items, people recognize block residents (Q19 in Table 1A1) and neighbors watch after each other (Q6) and a general sense of community item (Q20, both in Table 1A2) loaded sufficiently on one of the sense of community factors. But

since they were not part of the original scale, the first two were used as separate variables. The third was seen as redundant to the sense of community scale.

The following five scales (communitarianism, perceived block association efficacy, block satisfaction, perceived incivilities, and perceived crime problems) were determined in a factor analysis (Table 1A3) among participation-focused cognitive social learning variables. The present scales were adapted from ones previously found to predict participation cross-culturally, using samples in the United States (Florin & Wandersman, 1984) and Israel (Florin, Friedmann, Wandersman & Meier, 1987).

Communitarianism (Q21, 66-68; alpha = .68, n = 1,009) is the importance placed on the block, on working to improve it and on sharing a sense of community. It is based on the cognitive social learning variable, "subjective stimulus values." Communitarianism was found to be distinct, not only from the other block-focused cognitive social learning variables (Table 1A3), but also from sense of community and block satisfaction (Table 1A2). One item, "commitment to action" (Q37), is similar to the concept of communitarianism or, perhaps, "empowerment." But due to its potential overlap with the dependent variable participation and to the overabundance of indepependent variables at the DF-restricted block level, it will only be used in the individual-level comparison of block association members, nonmembers, and residents of other blocks. It may be viewed as a "least noticeable difference" test, or minimum effect, of membership.

Perceived block association efficacy (Q73-79; alpha = .82, n = 901) is a measure of how likely it is that the block association, or a hypothetical association on

unorganized blocks, could accomplish certain goals. In cognitive social learning terms, this is called "expectancies" or, alternatively, "behavioral consequences."

Block satisfaction (Q2-5; alpha = .59, n = 818) consists of evaluations of residents' overall satisfaction with the block as a place to live and their geographic and temporal comparisons of block conditions and direction (i.e., relative to surrounding blocks and to past conditions and future expectations). Both this and the last variable were confirmed as clear and separate from each other and from other factors in Table 1A3. Block satisfaction was also found to be distinct from sense of community and communitarianism (Table 1A2).

Perceived incivilities (Q38, 39, 42; alpha = .65, n = 1,052) is a measure of the respondents' estimates of the seriousness of the following, non-criminal physical, quality-of-life problems on the block: unkempt property, poor sanitation services, and litter. Two items (Q43, 47) had insufficient loadings in the factor analysis of perceived problem items (Table 1A5) and so were not used in the present study.

Crime-related Attitudes and Perceptions

Perceived crime problems (Q40, 41, 44, 45, 46; alpha = .78, n = 813) is a measure of the respondents' estimates of the seriousness of specific crime and delinquency problems on the block. This construct is thought to be a more objective assessment of criminal risk than is fear of crime. The specific problems addressed were vandalism, drug dealing, loitering youths, street robbery or assault, and burglary. The two perceived community problems scales could serve as proxies for (objective) physical incivilities and crime, respectively. Instead, they are being treated as part of the social climate because they are based on subjective perceptions or attitudes and

because more objective measures of incivilities and crime were available (see below).

Although the last three variables were all part of Florin and Wandersman's (1984) construct "encoding strategies" (or block satisfaction and problem perception), the decision to treat them as separate variables in this study was supported by a factor analysis performed on the present data (Table 1A3) which found the problems component to load weakly but negatively with the satisfaction factor, which makes some intuitive sense. Perceived incivilities and crime problems were found to be distinct from each other and from fear of crime (Table 1A4). One additional item, the perception that street crime (and, thus, the risk of victimization) has increased (Q48), loaded adequately on the perceived crime problems factor. But that item was used separately because the temporal estimation of criminal risk has been found to be an important factor related to fear of crime (Perkins & Taylor, 1987).

Fear of crime (Q49-50; alpha = .65, n = 1,056). Fear is considered an emotional reaction to crime, as opposed to the more cognitive reaction to crime (above). Fear was measured with a 2-item scale which asks how safe the respondent would feel being out alone on the block during the day and at night. Again, it was found to be distinct from perceived crime, incivilities and risk (Table 1A4).

Informal Block-focused Social Behaviors

Neighboring behavior (Q23-32; alpha=.76, n=999) was based on Unger and Wandersman's (1982) scale and included both giving and receiving various kinds of assistance: watching a neighbor's house, lending food or a tool, helping in an emergency, offering advice on a problem, and discussing a block problem. Because of the potential for confusion between neighboring, informal social control, and sense

of community, the relevant items were factor analyzed and confirmed as separate constructs (Table 1A1). Two single behavioral items were seen as distinct from the "instumental" variables neighboring and informal social control and so were left as separate constructs: neighbors watch after each other (Q6) and the total number of neighbors with whom the respondent socializes regularly (Q22).

Informal social control (Q34-36; alpha = .59, n = 720) assesses the likelihood of a neighbor doing something about three different types of hypothetical "threats" or "incivilities": trash, vandals, and a suspicious stranger. (Since this is not self-reported behavior, at the individual level, this should be interpreted as an attitude or perception.) Along with collective crime prevention (see below), informal social control will represent both vigilantism and "moral enterprise" from the sociology of deviance literature.

Dependent Variables:

Individual protective behaviors (Q52-54, 56). These "private-minded" defenses include such "target-hardening" measures as "putting extra locks on doors or windows," "leaving lights on when not at home," "installing outside lighting for security," and "having neighbors watch your house while you were out." Q55 ("putting identification numbers on property") was excluded from both individual and collective crime prevention variables because it can be done in either manner. Q51 (avoidance behavior) does not belong with the more active and efficacious behaviors. Because of statistical power limitations at the block level, it will only be examined at the individual level.

Participation in block association activities is the main dependent variable in

this study. For the correlational analyses, an interval-level participation scale was constructed from two different sources of data: the telephone survey and a self-administered survey of all available block association members (n=469) on the 31 actively organized blocks. The participation scale consists of four equally-weighted dimensions each aggregated as the mean across all respondents on each block. The dimensions include: from the telephone survey (including both members and nonmembers), (a) how active the association is perceived to be (Q71), (b) the mean time (hours per month) spent working for the association outside of meetings (Q107), (c) the mean level of responsibility in the preceding year in terms of participating in an activity, attending meetings, talking at a meeting, working for the organization outside of meetings, or serving on a committee or as an officer or committee chair (Q80, 102-105), and (d) the mean of the following ten, more detailed level of responsibility items from the block association member survey: In the past 12 months, have you…

Attended a meeting?
Spoken up during a meeting?
Done work for the organization outside of meetings?
Served as a member of a committee?
Helped organize activities (other than meetings) for the association?
Participated in activities other than meetings (block party, clean-up)?
Tried to recruit new members?
Tried to get people out for meetings and activities?
Served as a representative of the association to other community groups? Worked on other block association activities?

Despite the fact that most of the member survey administrations were supervised, some respondents apparently left all negative responses blank. Missing

values were thus treated as a valid 0 value for those items. The resident and member scales were aggregated separately by block and then averaged to compute a given block's participation score. For comparative purposes, an individual-level participation scale, which consists of the second and third dimensions above was also created. Most of the nonorganized blocks had at least one or two residents believing that there was a block association on the block or even claiming to have been involved in a block association activity at one time. This prompted a careful follow-up procedure to verify the presence or absence of an association on these blocks. Three were found to have some degree of organization (one past, one active and ongoing, and one just getting started). Only the telephone survey dimensions were used for these three blocks, since no member surveys were available.

Although some specificity regarding the various different aspects of participation has been lost in the present study, the use of a multi-item, multi-dimensional activity scale based on two different sources of data provides a more valid, reliable and robust measure of block association participation than a simple dichotomy of "organized/nonorganized" would be. In essence, this variable tells us not only what proportion of residents have participated at different levels of responsibility but also estimates the amount of time residents worked for the block association and uses the widest possible cross-section of information by including nonmembers' opinions of block association activity. (It was felt that the inclusion of nonmembers' might reduce the possible social desirability bias members might have in reporting their own level of participation. It is noteworthy that the resulting block participation scale appears to bear little relation to leader estimates of block association activity and success from the

leader interview. This may be due to the upward skew of those variables in the leader interview.). The four-dimension correlation matrix appears in Table 4, below. The high degree of intercorrelation validates this scale as measuring a coherent and insular construct. Note, especially, the high cross-method correlation indicated in the first column.

Table 4.

Block-level Pearson Correlations Among Dimensions of Participation[a]

Variables:	1	2	3	4
1. Responsibility Level (Member Survey)	1.00			
2. Responsibility Level (Resident Survey)	.78	1.00		
3. Perceived B.A. Activity Level (RS)	.80	.84	1.00	
4. Time spent working for B.A. (RS)	.73	.90	.70	1.00

[a] n of blocks = 47. All correlations significant at $p < .001$.

Block Association Membership (Q81, 102). This nominal variable forms three categories: member (must have attended at least one meeting during the past 12 months), nonmember, resident of nonorganized block. It will be used for individual-level group comparisons only.

Crime-focused Formally Organized Social Behavior

Collective crime prevention (Q57-58). These "public-minded" anti-crime behaviors include joining a neighborhood block watch program or participating in a civilian patrol on the block or in the neighborhood.

Environmental Inventory

A measure was developed for the purpose of assessing the crime and

fear-related physical environment of urban residential areas (see Appendix 2). The instrument represents a significant departure from the more common practice of relying solely upon the subjective reports of residents, which may be questionable given the potential method bias (Perkins et al., 1989). Thus, in order to make the assessment as objective as possible, the Block Booster Environmental Inventory uses detailed, in-person observations by trained raters. The procedure was conducted in August of 1985 on all the study blocks in order to examine three types of cues in the physical environment that have been theoretically or empirically related to crime and fear of victimization: (a) physical signs of social disorder or "incivilities" (such as the presence of vandalism, litter, graffiti, or dilapidated exteriors due to lack of property maintenance), (b) territorial symbols (e.g., evidence of dogs, such home "personalization" signs as family names on doors or lampposts, and beautification efforts, such as plantings and yard decorations), and (c) the built environment (including such "defensible space" features as opportunities for passive street surveillance and barriers on and around the property). Barriers (fences, gates, walls, hedges, etc.) are considered particularly important for encouraging a sense of spatial "ownership" and social cohesion among residents allowed within the barriers. Certain items were not used to predict participation in block associations or collective crime prevention for obvious redundancy with one of the dependent variables (e.g., block watch signs and alarm stickers). The possible redundancy of other items to the dependent variables, such as street and private lamps, benches, and window bars, may be less obvious. Since these items were known to be joint "projects" in some block associations, they were only used in the present analyses as dependent

variables in the comparison of organized and nonorganized blocks.

The instrument concentrates entirely on the inanimate physical environment. Social, as opposed to physical, incivilities were left out of the environmental inventory because obvious signs of serious social disorder (such as overt drug dealing and prostitution) are generally so sporadic or time-of-day specific that they could easily be missed or overstated by a single visit to a block. Although less obvious or serious social incivilities (such as loitering youths) no doubt concern residents, it would be invalid, unreliable and not in keeping with the emphasis on objectivity, to expect outside raters to happen to be present at just the right time and to try to judge whether observed behaviors did or did not qualify as "incivil."

The procedure took 45 to 60 minutes to complete for a given block, depending on the block`s size, and involved a single rater walking around the block once filling out the block-level assessment (Part 1) indicating street width in lanes and taking a count of building attachment and size category. Meanwhile, raters also kept a tally of all public lighting, damage or graffiti on public property and any abandoned buildings and cars, type of nonresidential building, public gardens, playgrounds, and block identifiers or "blockwatch" signs. In order to evaluate incivilities, territoriality, and defensible space with sufficient precision, the raters then walked the block a second time to fill out Part 2, a 20-item checklist on every third property until they reach a total of 12 properties assessed. Thus, the property checklist items are block-level aggregates based on an individual-level sample of 564 properties. To avoid bias, raters were uninformed as to whether or not a block had a block association.

After a brief training session with the author, two graduate research assistants

and the author conducted a pilot test on 10 non-study blocks in 2 of the 3 study neighborhoods. Discussion of judgement rules was allowed between pilot blocks but not during the rating of a block and no ratings were allowed to be changed based on post hoc discussions. Block-level (Part I) descriptive statistics from the study blocks and interrater reliability coefficients (based on pilot blocks) can be found in Table 5. Descriptive statistics from the study blocks and pilot block interrater reliability coefficients for the assessment of 12 properties per block (Part II) can be found in Table 6. According to Scott and Wertheimer (1962, p. 190), "if one simply requires a measure that is to be linearly related to some other variable," the product-moment correlation is a sufficient test of interrater reliability. Interrater agreement was thus computed as a proportion of exact agreement among all raters and as a mean Pearson correlation among three combinations of rater pairs. Agreement for block-level items was computed at the block level (N=10) and agreement for property-level items was computed at the property level (n=48). Because percentage agreement can be spuriously high for variables with low variance, all block-level total count items with any variance on the pretest were further tested using the mean of the three block-level interrater product moment correlations, all of which were above the mean r (.90). The mean interrater correlation for the property-level items was .68. Other research (Perkins, Meeks & Taylor, 1989) suggests that this represents a considerable underestimate of block-aggregated

Table 5. Block-level Reported Crime and Environmental Variable Ranges, Means Standard Deviations and Pretest Reliability [a]

Variable	Range	Mean	SD	% Exact 3-way Agreement	Mean Inter-rater r
Reported Crimes on Block (for 3					

months before and during survey)	0-18	5.60	4.14	N/A	NA
Block-level environment					
Built Environment					
Street width (in lanes)	3-5	3.42	.54	100	1.00
Total buildings	22-108	57.33	22.76	70	.99
Total attached buildings	0-97	26.52	29.55	63	.99
Total detached buildings	1-97	30.81	24.29	57	.99
Proportion attached bldgs	0-.99	.40	.39		
Total one-family houses	0-88	35.33	21.48	60	.99
Total 2 or 3 unit buildings	0-75	18.52	18.14	77	.98
Total multi-unit (4+) bldgs	0-16	3.10	4.38	93	.97
Vacant lots	0-8	.27	1.26	100	1.00
Stores	0-4	.98	1.04	(not pretested)	
Other nonresidential Bldgs.	0-8	1.27	1.80	(not pretested)	
Incivilities					
Graffiti on public property	0-47	14.15	9.02	27	.90
Proportion public graffiti (b)	0-.81	.26	.15		
Abandoned cars on street	0-1	.02	.14	93	.99
Boarded Abandoned Bldgs	0-2	.25	.53	100	1.00
Territoriality					
Public gardens	0-1	.06	.25	100	(c)
Public playgrounds	0-1	.02	.14	100	1.00
Block or "block watch" signs	0-12	.94	2.59	100	(c)
Block markers (eg, st.lamps)	0-63	.31	1.45	100	1.00
Mean		84	.98		

a The N of blocks for the range, mean and standard deviation is 48. Interrater reliability was computed on 10 separate pretest blocks. The coefficients represent the percent exact agreement among 3 raters and the mean of the 3 interrater (intraclass) correlations. The latter was only computed for block-level items for which exact three-way agreement was below 95 percent. Exact wording and instructions for the Environmental Inventory can be found in Appendix 2.

b Total incidence of public graffiti divided by the number of buildings on the block (to control for block size).

Table 6. Property-level Environmental Variable Ranges, Means Standard Deviations and Pretest Reliability [a]

Variable	Per 12 properties: Range	Mean	SD	Mean % Exact 3-Way Agreement	Inter-rater r
Built Environment					
Visibility of 1st fl. Windows	9-12	11.29	1.30	88	.50
Barrier on property	2-12	8.92	2.65	(not pretested)	
Barriers around Property	0-12	3.96	3.13	96	.91
Public (Street) Lighting	2-12	5.98	2.52	88	.83
Outdoor Private Lighting	2-12	8.69	2.45	85	.79
Front Gates	0-11	4.83	2.96	96	.93
Bars or Gates on Windows	0- 9	2.63	2.13	94	.73
Bench, Stoop (Outdoor Seating)	7-12	11.08	1.24	92	.68
Transient Environment					
Incivilities:					
Litter on/near property	0- 3	.71	.97	92	.70
Vandalism on property	0- 1	.04	.20	92	.17[b]
Graffiti on property	0- 7	.69	1.31	90	.67
Exterior Dilapidation	0- 3	.62	.73	85	.40
Territoriality:					
Occupied Building	10-12	11.71	.50	98	.80
Dogs (dog house, beware sign)	0- 5	.71	1.05	92	.81
Personalization signs	0- 8	1.98	1.83	77	.53
House or yard decorations	1-12	7.23	2.43	54	.36[b]
Private trees, shrubs, garden	1-12	9.98	2.85	96	.86
Public plantings	2-10	5.88	2.18	90	.86
Security/alarm signs on property	0- 4	.79	.94	94	.72
Block or block watch signs	0- 5	.52	1.07	100	(c)
				Mean = 90	.68

[a] The N of blocks for the range, mean and standard deviation is 48. Interrater reliability was computed on 48 properties on 4 pretest blocks. The coefficients represent the percent exact agreement among 3 raters and the mean of the 3 interrater (intraclass) correlations. Exact wording and instructions for the Environmental Inventory can be found in Appendix 2.

[b] Vandalism and decorations are not included in the remaining tables due to low interrater reliability.

[c] Correlation cannot be computed due to lack of variance in the pretest.

interrater reliability. Because the property-level interrater correlations are so conservative, the criterion for exclusion due to low interrater reliability was set at the relatively modest level of r = .40. Two items (vandalism and decorations) were excluded on that basis. Thus, despite the fact that raters were still just learning the instrument and how to apply it during the pilot tests, interrater agreement was found to be quite strong for most of the property checklist items used in the present analyses and was acceptable for the overall measure.

Official Police Crime Data

As explained in the introduction, due to problems of reliability and validity with most indicators of area crime rate, triangulation of data is particularly important. In an agreement worked out, on behalf of this dissertation project, between the New York City Police Department (NYPD), New York University and Citizens Committee for New York City, the author was allowed the relatively rare opportunity to collect data on officially reported crime at the Central Records Division of NYPD headquarters. Commensurate with the rest of the data, rates of reported crime were collected and analyzed at the block level. This differs from most previous studies which must typically rely on aggregated precinct or city-level data (if police data are available at all).

During the summer and fall of 1986, police records from five precincts (one of the study neighborhoods overlapped three different precincts) were systematically examined and manually coded for crimes occurring on any of the 48 blocks in the study. Selected crimes included all types of major and minor

"street" felonies and misdemeanors occurring during or just prior to the telephone survey (February, March, and April, 1985).

The source of the crime data was the NYPD Crime Complaint Index Form (see Appendix 3), which summarizes every detailed NYPD Crime Complaint Form that is filed. If the location or nature of the complaint was unclear from the Index, coders consulted the corresponding Crime Complaint Form. The Index is filled out at each precinct as complaints are filed and is submitted to Central Records at the end of every month. It includes both citizen-initiated complaints as well as those filed by an officer (i.e., on behalf of "the people of the state of New York") without a citizen complaint. Six trained coders recorded the following information on each complaint occurring on one of the study blocks: the date and approximate time of the incident, victim age, whether the complainant was a resident of the block where the crime occurred or a nonresident or a police officer, and the type of offense (e.g., burglary, robbery, assault, etc.). The offense types were later categorized two ways: (1) violent versus nonviolent and (2) personal versus property versus "quality of life" crimes. The degree (e.g., "third degree assault") and place (e.g., outdoor public property, outdoor private property, indoor residence, indoor business or public property) of the crime were also available for some complaints, though not on a systematic basis. Descriptive statistics for block total crimes during the above 3-month period can be found in Table 5.

IV. RESULTS

Approach to Data Analysis

The general approach to data analysis examines the relevant contextual variables in the permanent and transient social and physical environment and evaluates their relative importance in explaining participation in block associations. Although "participating" and "nonparticipating" individuals and blocks are compared, participation was more often treated as a continuous variable based on the mean level of block association work (time), activity, and individual responsibility of residents on each block (as explained in the Procedures).

Bivariate relationships with block association participation will first be explored through a series of means comparisons. The rationale for comparing members, nonmembers and residents of blocks without block associations on the transient variables, at the individual level of analysis, and for comparing organized and nonorganized blocks, at the block level, is that each comparison serves as a post-test-only quasi-experiment with nonequivalent groups. Although such a test is less desirable than a true experiment, its inferential power hinges on the prior random distribution within (or equivalence of) the groups. By using demographic variables to test this prior equivalence or else suggest some selection bias, the interpretability of results from this design, although still suspect, may be enhanced (Cook & Campbell, 1979). Also at the individual-level, the hypothesis that fear of crime is curvilinearly related to participation in block associations and individual and collective crime prevention is tested using analysis of variance.

Under the assumption that blocks do represent an ecologically valid and

theoretically important geo-social unit of analysis (see above sections on "Blocks and Block Associations" and "Problems in Measuring Social Climates"), most of the analyses were done at the aggregated block level. To verify that the social climate variables represent legitimate block-level constructs, an individual-level analysis of variance was conducted on each survey variable in the study comparing the blocks as a group effect. A block-level analysis of variance by neighborhood was also conducted to determine whether there are any significant differences on any variables among the three neighborhoods. In both cases, a significant F-ratio would indicate nonindependence. For each variable, individuals are predicted to be nonindependent of their block (justifying aggregated block-level analysis of the data). Although blocks (like individuals) are expected to be neighborhood "dependent," demographic variables will be entered as coviariates in this analysis so that any neighborhood effect is exclusive of those.

With a sample size of 47 blocks for most analyses, statistical power was quite limited, especially in the (multivariate) multiple regression equations. For all block-level bivariate analyses, the criterion effect size (for two-tailed significance at $p < .05$) was $r = .285$. The power (or probability of correctly rejecting a false null hypothesis) at $p < .05$ (2-tailed) and $r = .20$ is only .28. At $r = .30$, power ratio is .55 and only reaches the more desirable power level of .82 at $r = .40$ (Cohen, 1969). To compensate for this limitation, two methods of raising the power of the remaining analyses were adopted. One was to raise the block-level alpha (significance) criterion to $p < .20$. Although this procedure may seem highly unconventional to some, it actually represents a slight compromise to the $p < .25$ criterion

recommended by Kenny and LaVoie (1985) when analyzing group-level data. (It may help to remember that the block-level means are based on a total 1,081 survey respondents and 576 property ratings.) The other method used to increase statistical power at the block level was through reduction of the number of predictor variables (and the creation of composite "factor" variables) via secondary factor analyses within each cluster of the theoretical framework (results outlined below).

Block-level Pearson correlations will be used to examine the relationship of the predictor variables to collective participation in block associations, to community crime prevention efforts and to levels of individual protection on the block. If a given composite factor correlates significantly, its component variable correlations are also shown. Next, a matrix of Pearson and partial correlations (controlling for any demographic variables that are significantly related to block association participation) among the predictor factors is presented.

Finally, a series of multiple regression analyses will test the proposed general framework's ability to predict block-level participation. Each set will be entered hierarchically consistent with the model as correlates of participation in block associations. In addition to a full-model regression, other equations separately test the predictive power of the physical environmental and social climate component variables. A more stringent, cross-method regression is also presented, in which the social climate variables, from the resident survey, are regressed on the level of organizational responsibility dimension of participation, from the member survey. The introduction to each analysis provides more detail on the rationale.

Individual-level Analyses

Comparisons of Members, Nonmembers, and Residents of Unorganized Blocks. The first inferential analyses were individual-level means comparisons of members of block associations, nonmembers living on organized blocks, and residents of blocks without block associations (No-BA residents) were computed two ways. First, Table 7 presents an analysis of variance using unadjusted, inividual-level means. (Again, composite scale items were z-scored first to make each item comparable.) One-way analyses of variance provided an overall test of significant between-group differences. For each significant F ratio, the Student-Newman-Keuls procedure was used to determine which pairs of groups differed significantly on that variable.

Next, because of the within-block nonindependence of individuals (i.e., the influence of others on the same block), a series of ANOVAs on the same groups as above and t-tests (for members and nonmembers on organized blocks only) were performed which controlled for block-level variance. In these analyses, all the individual-level variables were computed by subtracting, from each individual's score, the mean for that individual's entire block. These "block-centered" variables are explicitly relative to other individuals on the block. This procedure to separate group and individual-level effects would be particularly important for any individual-level correlational analyses (Kenny & LaVoie, 1985). But the present study only examines block-dependent effects which are not affected in any meaningful way by block-centering. For example, if members engaged in more individual protections than nonmembers across the entire sample, they still would do so after extracting

Table 7. Individual Survey Mean Comparisons:
Member, Nonmember, Resident of Nonorganized Block [a]

	A Member Mean (SD)	B Non-member Mean (SD)	C No B.A. Mean (SD)	F	Student-Newman-Keuls
Demographics					
Length of Residence	3.41 (.83)	2.82 (1.11)	3.02 (1.16)	31.1***	A>C>B
Racial Minority	.60 (.49)	.57 (.50)	.36 (.48)	21.0 ***	A,B>C
Family Income Level	3.14 (1.26)	2.82 (1.24)	3.03 (1.26)	5.3 **	A>B
Home Ownership	.79 (.41)	.51 (.50)	.58 (.49)	34.4 ***	A>C>B
Education Level	4.31 (1.65)	4.31 (1.68)	4.46 (1.56)	.8 (ns)	
Age Group	3.12 (1.24)	2.57 (1.42)	2.89 (1.42)	15.9 ***	A>C>B
Female	.65 (.48)	.67 (.47)	.60 (.49)	2.0 (ns)	
Criminal Victimization					
Victimized Households	1.16 (.36)	1.18 (.38)	1.17 (.38)	.3 (ns)	
Indirect (know) Victim	1.33 (.36)	1.28 (.36)	1.30 (.35)	1.3 (ns)	
Block-focused Perceptions and Behaviors					
Block Satisfaction	.09 (.71)	-.04 (.70)	-.07 (.57)	5.1 **	A>B,C
Fear of Crime	-.00 (.86)	.07 (.91)	-.11 (.80)	3.6 *	B>C
Perc'vd Social Control	.10 (.60)	-.07 (.79)	-.00 (.76)	5.5 **	A>B
Sense of Community	.14 (.41)	-.11 (.53)	-.00 (.44)	26.9 ***	A>C>B
Neighboring Given	.27 (.80)	-.14 (.63)	-.09 (.70)	35.2 ***	A>C,B
Neighboring Received	.20 (.60)	-.07 (.73)	-.13 (.69)	21.9 ***	A>B,C
Communitarianism	.20 (.62)	-.13 (.78)	-.05 (.72)	20.4 ***	A>C,B
Perceived B.A. Efficacy	.17 (.57)	-.07 (.73)	-.09 (.76)	14.6 ***	A>B,C
Perceived Crime Problem	.04 (.68)	.03 (.75)	-.10 (.72)	3.6 *	A,B>C
Perceived Incivilities	.12 (.74)	-.02 (.79)	-.15 (.75)	9.7 ***	A>B>C
Perc'vd Increased Risk	1.91 (.58)	2.02 (.52)	2.02 (.48)	4.9 **	B,C>A
Avoidance Behavior	1.36 (.48)	1.37 (.48)	1.34 (.48)	.4 (ns)	
Nbrs.Watch After Nbrs.	2.61 (.67)	2.37 (.84)	2.20 (.87)	20.0 ***	A>B>C
Socialize w/ Neighbors	1.47 (1.13)	.95 (1.06)	.91 (1.02)	28.3 ***	A>B,C
Nbrs. Recog. Strangers	1.90 (.30)	1.84 (.37)	1.87 (.34)	3.6 *	A>B
Commitment to Action	2.26 (.84)	1.65 (.72)	1.41 (.65)	105.1 ***	A>B>C
Participation					
Collective Anti-Crime	.54 (.97)	-.19 (.74)	-.36 (.59)	121.9 ***	A>B>C
Individual Protections	.16 (.61)	-.11 (.65)	.01 (.65)	17.2 ***	A>C>B

[a] The n of members (A) is 341. The n of nonmembers (B) is 475. The n of residents of nonorganized blocks (C) is 265.

*** = p<.001; ** = p<.01; * = p<.05.

block-level variance because they live on the same blocks. The ANOVA reanalyses (using block-centered data) included residents of unorganized blocks, which changed some of the Student-Newman-Keuls comparisons. But those changes may be seen as an artifact of the block-centered "No B.A." group means necessarily falling between the means of the other two groups. Thus the block-centered results will not be presented.

The top two sections of Table 7 contain demographic variables and victimization over the last three years, which are stable and so will be treated as independent variables related to the dependent variable individual-level block association membership. As predicted, members showed the greatest residential stability and home ownership followed by No-BA residents. The same pattern was true of age category. The hypothesis that members would have a higher average family income than nonmembers was also verified. Both members and nonmembers were more likely to be a racial minority than were no-BA residents, which only partially supports the hypothesized racial effect. There were no significant group differences in education or sex. Nor were there any differences in direct (household) or indirect (vicarious) criminal victimization.

The bottom two sections (block-focused perceptions, attitudes and behaviors and participation in crime prevention, which at the block level form the social climate variables) are sufficiently transient in nature that they will be treated as post-tests of membership, as explained above. There were significant group differences on all but one variable. Members were highest on every variable, in the hypothesized direction, except for perception of crime (in which they did not differ

significantly from nonmembers), fear of crime and avoidance behavior (in which they did not differ significantly from either of the other groups), and the perception that the local criminal risk is increasing (in which members were lowest). In the "minimum effect of membership" test, their higher commitment to action to improve the block was particularly pronounced. Nonmembers were lowest in sense of community and had greater fear, and perceived crime and incivilities than No-BA residents. But nonmembers felt more commitment to action and that their neighbors watched out for each other more than No-BA residents.

As expected, members, on average, participated in block associations (not shown) and collective crime prevention activities more than nonmembers, who participated more than No-BA residents. Although members also participated in the most individual protections - i.e., such as installing extra locks or lights, or, when going out, leaving lights on or having neighbors watch the house - No-BA residents engaged in more such "target hardening" behavior than nonmembers.

The Curvilinearity Hypothesis of Fear and Participation. The hypothesis that participation in block associations and collective and individual anti-crime activity is greatest among those individuals with moderate levels of fear of crime (who are neither paralyzed by fear nor too complacent) was tested using an ANOVA design at the individual level (Table 8). In the first ANOVA on participation in block associations, an examination of the group means reveals an apparent linear, rather than curvilinear, trend. Participation decreases as fear increases. If there is any trend for participation in collective crime prevention activities, it is that participation is lowest among those with moderate fear. The F ratios in ANOVAs A and B are

Table 8. Analysis of Variance in Individual Participation in Block Associations and Crime Prevention of Fear of Crime Levels [a]

ANOVA A: Participation in Block Associations by Level of Fear of Crime

SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	(p <)
BETWEEN GROUPS	4	1.25	.31	.386	ns
WITHIN GROUPS	1074	872.19	.81		
TOTAL	1078	873.45			

GROUP	COUNT	MEAN	S.DEV.	95 % CONF INTERVAL FOR MEAN
"Very safe, day/night"	402	.036	.937	-.056 TO .128
Fairly safe	320	-.007	.887	-.105 TO .090
Moderately safe	233	-.021	.865	-.133 TO .091
Fairly unsafe	95	-.040	.897	-.223 TO .143
"Unsafe, day/night"	29	-.127	.846	-.449 TO .194
TOTAL	1079	.000	.900	-.054 TO .054

ANOVA B: Participation in Collective Crime Prevention by Level of Fear

SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	(p <)
BETWEEN GROUPS	4	3.60	.90	1.184	ns
WITHIN GROUPS	1059	804.55	.76		
TOTAL	1063	808.15			

GROUP	COUNT	MEAN	S.DEV.	95 % CONF INTERVAL FOR MEAN
"Very safe, day/night"	396	.054	.914	-.036 TO .145
Fairly safe	316	-.048	.832	-.140 TO .044
Moderately safe	228	-.004	.866	-.117 TO .109
Fairly unsafe	95	-.100	.799	-.263 TO .063
"Unsafe, day/night"	29	.160	.964	-.207 TO .526
TOTAL	1064	.001	.872	-.052 TO .053

ANOVA C: Participation in Individual Protections by Level of Fear

SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	(p <)
BETWEEN GROUPS	4	7.08	1.77	4.227	(.005)
WITHIN GROUPS	1064	445.68	.42		
TOTAL	1068	452.76			

GROUP	COUNT	MEAN	S.DEV.	95 % CONF INTERVAL FOR MEAN
1. "Very safe, day/night"	398	-.088	.681	-.156 TO -.021
2. Fairly safe	317	.011	.629	-.058 TO .081
3. Moderately safe	232	.060	.645	-.024 TO .143
4. Fairly unsafe	93	.169	.587	.048 TO .290
5. "Unsafe, day/night"	29	.124	.572	-.093 TO .342
TOTAL	1069	.002	.651	-.038 TO .041

STUDENT-NEWMAN-KEULS COMPARISON (p<.05): Group 1 < Groups 2, 3, and 4

[a] Individual-level participation combines the standardized scores (which is why the total mean is 0) on the level of responsibility dimension and the amount of time worked for the organization dimension, both from the telephone survey. The three middle fear categories have been labeled post-hoc (see items in Appendix).

both nonsignificant, however. And the Student-Newman-Keuls procedure verified that none of the five groups with different levels of fear differed significantly in either general or anti-crime collective participation from any others.

In ANOVA C, testing for mean differences in individual, "target hardening" protections, the F-test was significant. As predicted, on average, those with the least fear of crime engaged in the least individual protections. The relationship appears to be mostly linear and opposite to the trend for participation in block associations. The Student-Newman-Keuls comparison verified that those who feel "very safe" alone on their blocks both in the daytime and at night had engaged in significantly fewer protections than three of the other four groups. (It would have been all four groups except that the small n of those reporting the greatest fear produced a much larger confidence interval for that group.)

Secondary Factor Analyses

Due to the limited degrees of freedom at the block level, the number of variables in the remaining analyses needed to be reduced. The social and physical environmental variables were thus divided into sets on a conceptual basis and then combined within sets using a series of six secondary factor analyses (Table 9): three on the different domains of the physical environment (the built environment, territorial markers and physical incivilities) and the three domains of the social climate (behaviors, attitudes, and perceived conditions or "cognitions").

The first analysis was of the built environment items from the environmental inventory, excluding certain features that were possible objects of block association action and therefore confounded with the key dependent variable. These were

Table 9. Factor Analysis of Block-Level Environmental and Social Climate Variable Domains[a]

Built Environment (2 factors extracted):

Variable	Factor 1	Factor 2	Communality
Barrier on Property	.85		.74
Proportion Attached Bldgs.	.79		.66
Street Width	-.71		.51
Visibility of Windows	.67		.48
Barrier around Property		.91	.84
Gate on Property		.91	.83

Transient Physical Environment

Physical Incivilities (2 factors extracted):

Variable	Factor 1	Factor 2	Communality
Exterior Dilapidation	.87		.82
Empty Building	.69	.44	.66
Litter	.61		.43
Public Graffiti		.80	.65
Private Graffiti		.80	.68

Territorial Markers (1 factor extracted):

Variable	Factor 1	Communality
Personalizations	-.86	.74
Private Plantings	.84	.72
Public Plantings		.03

Social Climate:

Behaviors (1 factor extracted):

Variable	Factor 1	Communality
Neighboring	.85	.72
Neighbors Watch After Nbrs.	.76	.57
Socialize with Neighbors	.75	.56
Informal Social Control	.68	.46

Attitudes (2 factors extracted):

Variable	Factor 1	Factor 2	Communality
Sense of Community	.83		.76
Block Satisfaction	.82		.68
Fear of Crime	-.80		.70
Communitarianism		.83	.74
Block resident recognitio		.70	.49
Perceived B.A. Efficacy		.68	.47

Perceived Conditions (1 factor extracted):

Variable	Factor 1	Communality
Perceived Incivilities	.91	.82
Perceived Crime Problems	.87	.76
Perceived Increased Risk		.08

[a] Varimax rotation (loadings less than .3 omitted).

public street lights, private outdoor lighting, bars on windows and places to sit outdoors. (Block associations were known to sometimes organize projects to provide these features.) Two factors were extracted from the remaining built environmental items. One was the presence of a gate on the property and barriers around the property. This makes sense in that "perimeter" fences often include a gate. The other factor included four items that may appear, at first, to be a motley combination. It was clear that this factor was conceptually two different variables and so was divided accordingly into (a) the proportion of attached buildings on the block and barriers on the property (both are "near-home" barriers) and (b) narrow street and visible windows (these relate to visibility to and accross the street).

The second analysis included all five physical incivilities and two factors were extracted: (a) graffiti on public and private property and (b) "unintentional" incivilities: exterior dilapidation, empty building(s) on the block and litter on the street and sidewalk. Because empty buildings loaded on both factors, it was kept separate in later analyses.

The third analysis included all territorial markers. (Evidence of dogs, although a sign of territorial functioning, was not included in this analysis because, unlike the others, it is considered neither "purposive" nor, especially, beautifying.) One factor was produced among personalization signs and public and private plantings (trees, shrubs, garden). But the loading was negative for personalizations and nonsignificant for public plantings. Given the need for data reduction, the three territorial marker items were still combined as a single factor for later analyses.

The behavioral social climate factor analysis extracted one factor: neighboring

behavior, neighbors "watching out" for each other, the level of socializing among block residents, and informal social control. The fifth analysis produced two attitudinal social climate factors. One was made up of sense of community, block satisfaction, and perceived block safety (i.e., the reverse of fear of crime). This factor was labeled "sense of community well-being." The other attitudinal factor included communitarianism, block resident recognition, and perceived block association efficacy and was labeled "communitarian efficacy." The final factor analysis extracted a single cognitive, or perceived problem conditions, factor. It included perceived incivilities, crime problems, and increased risk of criminal victimization. Perceived increased risk did not load significantly, however, and so was used separately.

Tests of Nonindependence

A series of analysis of variance tests of individuals' nonindependence of the blocks they live on is presented in Table 10. Dependent variables include participation in block associations and crime prevention, demographics, direct and indirect victimization and the general social climate factors identified above. The R^2 column represents the proportion of variance in each variable explained by the respondents' block. The significant F ratios and large R^2 values mean that individual-level analyses include significant hidden block-level effects. Thus, the rationale for mainly block-level analyses in this study appears justified by the general nonindependence of individuals within blocks. The only exception was the variable perceived increased risk, which did not exhibit significant block-level variance at the $p < .05$ level. Since the block-level standard deviation in Table 3

Table 10. ANOVA Tests of Individuals' Nonindependence of Blocks[a]

Criterion Variables	Total DF	F (p <)	R^2
Participation			
Block Association	963	5.45 (.001)	.215
Crime Prevention	1,064	4.11 (.001)	.158
Individual Protections	1,070	2.10 (.001)	.089
Demographics			
Length of Residence	1,058	2.33 (.001)	.101
Minority Status	1,056	51.11 (.001)	.692
Income Level	832	2.63 (.001)	.137
Home Ownership	1,030	4.69 (.001)	.197
Victimization	1,053	1.96 (.001)	.082
Social Climate			
Neighboring/Control Behaviors	1,053	2.39 (.001)	.099
Sense of Community Well-being	1,053	3.85 (.001)	.149
Communitarian Efficacy	1,053	2.19 (.001)	.091
Perceived Block Problems	1,053	2.52 (.001)	.103
Perceived Increased Risk	980	1.21 (ns)	.055

[a] Total n of individuals = 1,081 (including missing); n of blocks = 47 (Main Effects DF = 46).

for this variable was not out of line compared with the other social climate variables, it was not excluded from block-level analyses.

Table 11 presents a series of tests of blocks' nonindependence of their neighborhood on each demographic and physical and social general factor variable in the study. Deviation values from the grand mean of each variable for the three neighborhoods are unadjusted for demographic influences. The R^2 column represents the proportion of variance in each variable explained by neighborhood, also including demographic effects. The large deviation and R^2 values mean that block-level analyses include significant hidden neighborhood-level effects. Note the large F ratios at the top of Table 11 for the demographic variables, however. The remainder of that column presents F ratios that have been adjusted for demographic covariates. Not shown in Table 9 are the pre-covariate F's for the nondemographic variables. The only variables for which inclusion of these covariates did not substantially reduce the neighborhood effect (F) were perceived block problems and perceived Increased Risk. For most variables, the effect became nonsignificant. This indicates that most of the differences between neighborhoods are due to demographic influences.

One way of handling the neighborhood effect would be to pull the neighborhood variance out of each block by computing each block-level variable as a deviation from the neighborhood mean. This would be ideal (a) if there were a large enough sample of neighborhoods to run additional analyses at the neighborhood level or (b) if the source of neighborhood variance could not be determined. Since there are only three neighborhoods in the study and since the

Table 11. ANOVA Tests of Blocks' Nonindependence of Neighborhoods[a]

Neighborhood:	E. Flatbush (n = 17)	SE Queens (n = 14)	Bay Ridge (n = 17)[b]		
Variables	Deviation	Deviation	Deviation	R^2	F (p <)
Demographics					
Length of Residence	-.16	.22	-.03	.183	4.93 (.05)
Minority Status	.22	.34	-.53	.890	178.81 (.001)
Income Level	-.15	-.20	.33	.258	7.66 (.001)
Home Ownership	-.01	.16	-.13	.314	10.09 (.001)
Est. Block Population[c]	.20	-.69	.39	.409	15.21 (.001)
Built Environment				Controlling Demographics:	
Narrow, Visible Street	.07	-.70	.54	.379	1.38 (ns)
Near-home Barriers	-.10	-.79	.80	.538	.38 (ns)
Perimeter Barriers	-.68	.27	.49	.325	6.25 (.005)
Crime Rate					
Direct/Indirect Victim	.32	-.18	-.19	.085	.42 (ns)
Reported Crime	.03	-.58	.48	.180	.24 (ns)
Territorial Functioning					
Territorial Markers[d]	-.04	.05	.00	.007	.73 (ns)
Dogs	-.30	.29	.06	.053	.25 (ns)
Physical Incivilities					
Litter & Dilapidation	.31	.04	-.34	.119	.01 (ns)
Public & Private Graffiti	.29	-.24	-.09	.075	1.29 (ns)
Empty Buildings	.12	.07	-.17	.069	.08 (ns)
Social Climate					
Neighboring/Control Behaviors[e]	-.28	.31	.02	.101	1.98 (.20)
Sense of Community Wellbeing[f]	-.34	-.26	.59	.272	.02 (ns)
Communitarian Efficacy[g]	-.03	.47	-.38	.210	2.93 (.10)
Perceived Block Problems	-.07	.30	-.19	.052	2.61 (.10)
Perceived Increased Risk	.05	-.04	-.02	.076	5.25 (.01)
Participation					
Block Association	-.07	.29	-.18	.047	.46 (ns)
Crime Prevention	.00	.14	-.13	.087	.10 (ns)
Individual Protections	-.10	.22	-.09	.478	7.88 (.001)

[a] n of blocks = 47; n of neighborhoods = 3 (Main Effects DF = 2). Deviation values and R^2 are unadjusted for demographic influences. F ratios for all variables other than demographics adjusted for demographic covariates.

[b] 1 block missing in Bay Ridge for survey-based variables (Demographics, Victimization, Social Climate).

[c] Estimated Block Population = n of bldgs. X approx. n of units/bldg.

[d] Personalizations and public and private plantings.

[e] Neighboring, informal social control, socializing, and watching out for neighbors.

[f] Sense of community, block satisfaction, perceived block safety (low fear)

[g] Communitarianism, perceived block association efficacy, and block resident recognition.

source of most of the neighborhood variance clearly resides in the demographic variables, however, analysis across neighborhoods may be justified. Still, it will be important to examine demographic effects in the remaining, block-level analyses, to control for those effects as their significance warrants, and to consider the impact of eighborhood-level variance when drawing conclusions from the data.

Block-level Analyses

Comparison of Organized and Nonorganized Blocks

A comparison of means on all study variables between blocks with block associations (combining members and nonmembers) and those without block associations appears in Table 12. The three blocks of ambiguous status (see "Procedures") were excluded. Due to low statistical power at the block level, multivariate analysis of variance was not possible. Instead a series of bivariate, two-tailed t-tests were used with separate variance estimates (and adjusted degrees of freedom) because of insufficient homogeneity of variance between the two groups on many variables. Again, due to the low n of blocks, mean differences that would be highly significant at the individual level of analysis (cf. Table 7) were nonsignificant at the block level. Although several were significant, they must be interpreted with caution. At $p < .20$, one would expect approximately four or five of the 24 t-tests to be significant by chance alone.

As in every analysis, the built environment is treated as an independent variable. Contrary to expectations that block associations would develop on blocks with more defensible space, blocks with block associations were on somewhat wider, less "visible" (from inside one's home) streets. Organized blocks also had

Table 12. Organized and Nonorganized Block Mean Comparisons

	Organized (n=31) Mean (SD)	Nonorganized (n=13) Mean (SD)	(2-tailed T[a] p<)
Built Environment[c]			
Narrow, Visible Street[b]	-.04 (.84)	.31 (.52)	1.68 (.15)
Near-home Barriers[b]	-.07 (.95)	.37 (.65)	.27 (.10)
(Barrier on Property)	8.44 (2.71)	10.54 (1.71)	3.11 (.005)
Perimeter Barriers[b]	.11 (.91)	-.14 (.98)	-.81 (ns)
Public Street Lighting	6.34 (2.67)	4.54 (1.45)	-2.91 (.01)
Private Lighting	8.34 (2.65)	9.62 (1.56)	2.00 (.10)
Bars on Windows	2.63 (2.31)	2.31 (1.49)	-.55 (ns)
Outdoor Seating	11.09 (1.33)	11.08 (1.12)	-.04 (ns)
Crime Rate			
Direct/Indirect Victim[b]	-.07 (.85)	.02 (.88)	.31 (ns)
Reported Crime	5.77 (4.45)	5.31 (3.57)	-.37 (ns)
Territorial Functioning[c]			
Territorial Markers[bd]	-.01 (.51)	.00 (.39)	.09 (ns)
Dogs	.88 (1.19)	.38 (.65)	-1.77 (.10)
Security/Alarm Signs	.84 (.77)	.62 (1.19)	-.64 (ns)
Block/Block Watch Signs	.75 (1.24)	.08 (.28)	-2.89 (.01)
Physical Incivilities[c]			
Litter & Dilapidation[b]	.12 (.83)	-.28 (.74)	-1.56 (.15)
Public & Private Graffiti[b]	-.02 (.88)	.04 (.72)	.24 (ns)
Empty Buildings	.37 (.55)	.08 (.28)	2.39 (.05)
Social Climate[b]			
Neighboring/Control Behaviors[e]	.21 (.72)	-.48 (.71)	-2.94 (.01)
Sense of Community Well-being[f]	.07 (.79)	.06 (.83)	-.05 (ns)
Communitarian Efficacy[g]	.02 (.73)	-.15 (.83)	-.64 (ns)
Perceived Block Problems	.14 (.89)	-.43 (.81)	-2.07 (.05)
Perceived Increased Risk item	1.95 (.14)	2.02 (.11)	1.73 (.10)
Participation[b]			
Crime Prevention	.15 (.32)	-.33 (.19)	-6.23 (.001)
Individual Protections	.04 (.22)	.03 (.20)	-.14 (ns)

[a] T-test based on separate variance estimates and adjusted df.
[b] Means of scales based on standardized (z-scored) component variables.
[c] Most of the environmental means are based on 12 properties per block.
[d] Territorial Markers = Personalizations & public & private plantings.
[e] neighboring, informal social control, socializing, and watching out for neighbors
[f] sense of community, block satisfaction & perceived block safety (low fear)
[g] communitarianism, perceived block association efficacy, and block resident recognition.

fewer barriers on, as opposed to around, residential property and had less private outdoor lighting but significantly more public street lighting.

The remaining comparisons serve as post-tests of block organization. Contrary to expectations that block associations would deter crime, there were no significant differences in reported crime or victimization rates. Organized blocks also had significantly more unoccupied and poorly maintained buildings, which is opposite to what was hypothesized. On the other hand, blocks with block associations exhibited more of two territorial items: block identification signs and evidence of dogs. Some block-level features of the physical environment were too rarely found to be used in the correlational analyses that follow. But on a more anecdotal level, the only abandoned car that was found was on an unorganized block and the only playground and all three gardens were on organized blocks.

With regard to the social climate, as predicted, people living on organized blocks engaged in more of the positive block social behaviors (neighboring behavior, informal social control, socializing with neighbors and residents watching after each other) and were less likely to perceive an increase in block crime. Contrary to expectations, however, residents of organized blocks were also more critical of block problems. Separate t-tests determined that this was due to their higher perceptions of incivilities, such as unkempt property, litter, and poor sanitation services ($t = -2.59$, $p < .05$). There were no significant differences in sense of community well-being or communitarian efficacy.

As expected, in comparison to those who live on blocks without block associations, on average, people who live on organized blocks participated more in

collective crime prevention efforts (e.g., a citizen patrol or block watch, many of which were sponsored by block associations). There were no significant aggregate differences in individual protections.

Correlates of Participation in Block Associations and Crime Prevention

Tables 13 and 14 present the block-level permanent and transient (respectively) social and physical environmental correlates of each of the dependent variables: participation in block associations (on all blocks and on organized, or "B.A." blocks only) and in collective (civilian patrol or "block watch" program) and individual crime prevention activities. For each composite, or general factor, variable that was significantly correlated with one of the dependent variables, the component variable correlations with the three dependent variables are presented.

Contrary to the hypotheses that greater resources (income), investment (home ownership), residential stability, lower block population, and nonresidential land use would lead to greater block association participation, that dependent variable was unrelated to almost the entire set of demographic variables. The only exception when analyzing across all blocks was its expected, but modest, association with the proportion of racial minorities. But even that correlation was zero using organized blocks only, which suggests that the effect is due to the slightly disproportionate selection of predominantly minority organized vs. nonorganized blocks (compared with the same ratio among the predominantly white blocks). Using organized blocks only, the expected negative correlation between participation and the estimated block population was found. Unpacking that predictor, however, shows that this association is mainly due, not to a "manning" effect, but to the

Table 13. Block-level Pearson Correlations of Permanent Environment with Participation in Block Associations, Collective Crime Prevention (CCP) and Individual Protections [a]

Variable[b]	B.A. Participation	(B.A. Blocks Only)	CCP	Individual Protections
Demographics				
Length of Residence	ns	(ns)	.20	.24
Proportion Nonwhite	.21	(ns)	.28	.41
Income	ns	(ns)	-.24	ns
Home Ownership	ns	(ns)	.29	.51
Block Population Estimate	ns	(-.26)	ns	-.53
(Number of Bldgs. on Block)	ns	(-.25)	ns	ns
(Housing Density: Units/Property)	ns	(ns)	-.25	-.64
Commercial Property	ns	(ns)	-.26	-.38
Other Nonresidential Property	ns	(ns)	.36	.27
Vacant Lot	ns	(ns)	ns	.26
Built Environment				
Narrow, Visible Street	-.22	(ns)	-.21	-.47
(Street Width)	.23	(ns)	.19	.47
(Visible Window)	ns	(ns)	ns	-.30
Near-home Barriers	-.28	(ns)	-.26	-.59
(Barrier On Property)	-.40	(ns)	-.33	-.56
(Proportion Attached Buildings)	ns	(ns)	ns	-.48
Perimeter Barriers	ns	(ns)	.19	ns
(Gate)	.21	(.20)	.32	ns
(Barrier Around Property)	ns	(ns)	ns	ns

[a] n of blocks = 47 (n of organized blocks = 34); 2-tailed significance levels are as follows: r=.19 (p<.20), r=.25 (p<.10), r=.29 (p<.05), r=.37 (p<.01)

[b] If a composite variable is significantly correlated, its component variables appear below it in parentheses.

Table 14. Block-level Pearson Correlations of Transient Environment with Participation in Block Associations, Collective Crime Prevention and Individual Protections [a]

Variable[b]	B.A. Participation	(B.A. Blocks Only)	CCP	Individual Protections
Crime Rate				
Victimization	ns	(-.19)	ns	ns
Reported Crime	ns	(ns)	ns	-.30
Territorial Functioning				
Territorial Markers	-.19	(-.34)	ns	ns
(Public and Private Plantings)	-.25	(-.29)	ns	.20
(Personalizations)	ns	(ns)	ns	-.24
Dogs	.23	(.19)	ns	.19
Physical Incivilities				
Litter & Dilapidation	ns	(ns)	ns	ns
Public & Private Graffiti	ns	(ns)	ns	ns
Empty Buildings	.29	(ns)	ns	ns
Social Climate				
Neighboring/Social Control	.52	(.44)	.54	.26
(Neighboring)	.48	(.36)	.52	.53
(Informal Social Control)	ns	(.30)	ns	ns
(Socialize with Neighbors)	.41	(.22)	.46	.24
(Neighbors Watch After Each Other)	.51	(.48)	.50	ns
Sense of Community Well-being	ns	(.45)	ns	-.27
(Sense of Community)	ns	(.40)	.30	ns
(Block Satisfaction)	.31	(.46)	.19	-.20
(Perceived Block Safety)	ns	(.25)	-.22	-.48
Communitarian Efficacy	.29	(.43)	.49	.32
(Communitarianism)	ns	(ns)	.35	.27
(Block Association Efficacy)	.30	(.46)	.31	ns
(Block Resident Recognition)	.21	(.33)	.43	.50
Perceived Block Problems	.22	(ns)	ns	.39
(Perceived Crime Problems)	ns	(ns)	ns	.24
(Perceived Incivilities)	.33	(ns)	.27	.47
Perceived Increased Risk	-.42	(-.54)	-.30	ns
Crime Prevention				
Collective Crime Prevention (CCP)	.75	(.60)	1.00	.29
Individual Protections	ns	(ns)	.29	1.00

[a] n of blocks = 47 (n of organized blocks = 34); 2-tailed significance levels are as follows: r=.19 (p<.20), r=.25 (p<.10), r=.29 (p<.05), r=.37 (p<.01)

[b] If a composite variable is significantly correlated, its component variables appear below it in parentheses.

number of buildings (or physical size) of the block rather than its population density. The larger the block, the lower the degree of general participation. (It is worth noting that, although length of residence, home ownership and income were not significantly related to participation in block associations at the block level of analysis, they were all positively related to individual-level participation, based on the three resident survey dimensions of the scale ($r=.21$, $n=1,059$, $p<.001$; $r=.22$, $n=1,031$, $p<.001$; and $r=.10$, $n=833$, $p<.005$, respectively)).

In the crime prevention columns, both collective and individual anti-crime activity were positively related to many demographic variables: length of residence, proportion nonwhite, home ownership, and nonresidential property other than stores (e.g., churches, public gardens, playgrounds). The first three of those were especially strongly associated with individual protections (although it should be noted that this and all other comparisons between individual and collective crime prevention could be due to greater variance in the former). Both forms of crime prevention were inversely related to commercial property on the block and to housing density (i.e., more multi-unit buildings). Again, these were larger effects for individual protections. Not shown in the table is a significant association between housing density and reported crime ($r=.34$, $p<.01$). The only income effect was that collective crime prevention efforts were modestly associated with lower income blocks. There were somewhat more individual protections on blocks with a vacant lot.

In the built environment, most of the correlations with block association participation were made nonsignificant by restricting the sample to organized blocks only. Across all blocks, all three dependent variables, particularly individual

protections, were related to wider streets and even more strongly related to fewer barriers on (as opposed to around) people's property. These results are opposite to the hypothesized relationships with collective participation. Participation in block associations and in collective crime prevention was also related, as predicted, to more gates. The level of individual protections was related to window visibility and building detachment.

Participation in block associations and in crime prevention was correlated with a wide variety of social climate constructs and transient physical environmental items (Table 14). Contrary to expectations, however, reported crime and surveyed victimization rates were not consistently related to any of the dependent variables. The level of individual protections was related to lower reported crime, but not criminal victimization. And there was a slight correlation between participation in block associations and lower victimization rates on organized blocks, but not across all blocks. Collective crime prevention was not significantly related to either crime indicator.

In the transient environment, evidence of dogs was positively associated and public and private trees, shrubbery and gardens were (unexpectedly) negatively associated with participation in block associations. Although collective crime prevention was unrelated to territorial functioning, individual protections were associated with more plantings, fewer personalizations, and more dogs. The only form of actual (as opposed to perceived) physical incivility that was related to any of the dependent variables was presence of an empty building on the block, which, as expected, was positively related to block association participation.

Among the social climate variables, all of the positive behaviors (neighboring, neighbors watching after each other, socializing with neighbors, and - on organized blocks only - informal social control) were related to participation in block associations, as predicted. Individual and collective crime prevention were strongly related to neighboring and, to a lesser extent, socializing. Collective crime prevention was also strongly associated with neighbors watching after each other. Ironically, the only behavior not significantly related to one or both of the crime-related dependent variables was the crime-related predictor, informal social control.

Each component of the general factor "sense of community well-being" was significantly related to participation in block associations on organized blocks. This was predicted for block satisfaction and sense of community but not for perceived safety (i.e., the reverse of fear of crime). Across all blocks, however, only the relationship with block satisfaction was significant. This effect is contrary to Florin and Wandersman's (1984) findings. Collective crime prevention was also modestly associated with block satisfaction while individual protections was negatively related. Sense of community was positively related to collective crime prevention and perceived block safety (or the reverse of fear of crime) was associated with both forms of crime prevention, especially individual.

As expected, the communitarian efficacy factor was positively related to all three dependent variables. Perceived block association efficacy and the perception that neighbors would recognize who was a stranger and who was a block resident appear to be mainly responsible for this factor's correlation with block association participation. Surprisingly, communitarianism was significantly related to collective

and individual crime prevention but not to participation in block associations. Both forms of crime prevention were even more strongly related to the perception that neighbors could distinguish residents from strangers. Collective crime prevention was also related to block association efficacy.

Perception of block problems was associated with block association participation and with individual protections, both in the hypothesized direction. In both cases, the relationship seems to be due more to the variable perceived incivilities (which is also related to collective crime prevention) than to perceived crime problems. This last comparison is an especially noteworthy and ironic effect. Contrary to what was predicted, perceived increased risk of criminal victimization on the block was associated fairly strongly and negatively with both types of collective participation, but not significantly with individual protections.

Among dependent variables, as expected, the level of collective crime prevention on the block was strongly related to block association participation. Block-aggregated individual protections were not significantly related to block association participation, but were related to collective crime prevention.

Relationships Among Social and Physical Predictors

The full Pearson correlation matrix among the general factor variables to be entered in the regression model predicting participation in block associations appears in Table 15. This is where data reduction became most critical. Since neither measure of street crime (surveyed or officially reported) was significantly related to participation in block associations, that set was excluded from the matrix,

Table 15. Block-level Pearson Correlations (below diagonal) Among Block Association Participation, Built Environment, Territorial Functioning, Physical Incivilities, and Social Climate and Partial Correlations (above diagonal) Controlling for Proportion Nonwhite Residents [a]

Variable [b]	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Participation	1.00	ns	-.20	.22	ns	.22	ns	ns	.25	.52	.35	.23	ns	-.42
Built Environment														
2. Narrow, Visible Street	-.22	1.00	.34	ns	-.22	-.20	ns	ns	ns	ns	ns	ns	ns	ns
3. Near-home Barriers	-.28	.58	1.00	ns	ns	-.36	.27	ns	ns	ns	ns	ns	-.22	ns
4. Perimeter Barriers	ns	ns	ns	1.00	ns	ns	ns	ns	ns	.30	ns	.31	ns	-.27
Territorial Functioning														
5. Territorial Markers	-.19	ns	ns	ns	1.00	ns	-.19	-.28	-.31	ns	ns	ns	ns	.41
6. Dogs	.23	ns	ns	ns	ns	1.00	ns	ns	ns	.21	ns	ns	.20	ns
Physical Incivilities														
7. Litter & Dilapidation	ns	ns	ns	ns	-.21	ns	1.00	ns	.36	-.29	-.19	-.29	.19	ns
8. Public & Private Graffiti	ns	ns	ns	-.19	-.28	ns	ns	1.00	.40	ns	ns	ns	ns	-.37
9. Empty Buildings	.29	-.27	-.24	ns	-.31	ns	.43	.43	1.00	ns	ns	ns	ns	-.43
Social Climate														
10. Neighboring/Social Control	.52	ns	ns	.27	ns	.22	-.25	ns	ns	1.00	.51	.43	ns	-.23
11. Sense of Community Well-being	ns	ns	.46	.24	ns	ns	-.33	ns	-.21	.39	1.00	.37	-.44	-.32
12. Communitarian Efficacy	.29	-.33	-.38	ns	ns	ns	ns	.22	ns	.40	ns	1.00	ns	-.35
13. Perceived Block Problems	.22	-.20	-.33	ns	ns	.22	.26	ns	ns	ns	-.50	ns	1.00	ns
14. Perceived Increased Risk	-.42	ns	ns	-.25	.41	ns	ns	-.37	-.42	-.23	-.24	-.32	ns	1.00

[a] n of blocks = 47; 2-tailed significance levels are as follows: r=.19 (p<.20), r=.25 (p<.10), r=.29 (p<.05), r=.37 (p<.01). p-levels for equivalent partial correlations are slightly higher.

[b] 2 = window visibility + reversed street width; 3 = attached houses + other barriers on property; 4 = Barriers around property + gate; 5 = public and private plantings + personalizations; 10 = neighboring, informal social control, socializing & watching out for neighbors; 11 = sense of community, block satisfaction & perceived block safety (low fear); 12 = communitarianism, perceived B.A. efficacy & block resident recognition; 13 = block crime and quality-of-life problem ratings.

and thus from the regression analysis (below). The demographic set was under consideration as potential control variables in the model. Race (proportion nonwhite) was the only demographic variable that was related to general participation across the whole sample of blocks and so it was partialled from each correlation in the matrix (top-right half of Table 15). Partialling racial composition made little difference to either the size or the number of significant correlations (there were 42 significant zero-order correlations compared with 38 significant partial correlations). It was decided, therefore, that the demographic set could also be safely excluded from the regression model.

As shown in Table 15, there were many significant intercorrelations among the predictors in the model. The strong correlations between the social climate variables and other social and physical variables adds further support for their validity as block-level constructs. There were many significant correlations within sets of variables in the model, even after the secondary factor analysis which worked to reduce such multi-collinearity. For example, not only were building attachment and barriers on property interrelated, but together they were associated with more narrow and "visible" streets. Consistent with Wilson and Kelling's (1982) thesis that incivilities are "contagious," blocks with empty buildings were significantly related to both of the other physical incivility factors.

Among social climate predictors, as expected, the factor of neighboring, social control and other block social behaviors was related to the "sense of community well-being" factor and the "communitarian/block association efficacy" factor. Sense of community well-being was, not surprisingly, also related to the

perception of fewer block problems and of less increased criminal risk. Perceived increased risk was also related to less communitarian efficacy and less positive social behaviors.

Looking across sets of the physical environment, as expected, territorial markers were inversely related to all of the physical incivilities: the more markers on a block, the less graffiti, empty buildings and other incivilities. And empty buildings were also associated with wider, less visible streets and houses with fewer near-home barriers (attached buildings and barriers on, as opposed to around, the property).

Many of the correlations between the observed physical environment and the unseen social fabric of the blocks are even more noteworthy. For example, consistent with the environmental criminology literature, sense of community well-being was related to both near-home and perimeter (around the property and gates) barriers and to fewer "unintentional" physical incivilities (litter and dilapidation) and fewer empty buildings. This deserves to be unpacked a little: as component variables, block-level feelings of safety (low fear of crime) correlated with attached buildings (r = .60), barriers on the property (r = .56), and less litter (r = -.25); and litter was negatively correlated with sense of community (r = -.50). (Feelings of safety were also related, as expected, to street visibility (r = .41), street narrowness (r = .27), and, unexpectedly, less public street lighting (r = -.39) and plantings (r = -20).)

Perceived increased risk of street crime was strongly and strangely associated with several physical factors: more territorial markers, fewer empty buildings and perimeter barriers and less graffiti. The communitarian efficacy and

perceived block problems factors were both related, unexpectedly, to fewer near-home barriers and to wider, less visible streets. Block problem awareness was also related to more dogs and unintentional incivilities whereas positive block social behaviors were related to more dogs and fewer unintentional incivilities (evidence of dogs was not included among the physical incivilities, intentional or otherwise). Finally, as expected, positive social behaviors was associated with more perimeter barriers. Again, almost all of the above relationships hold up even when controlling for block racial composition.

Unlike the results of Perkins, Meeks and Taylor (1989), the only relationship between resident perceptions of incivilities and other block problems and actual (objective) incivilities is a correlation between perceived problems and the unintentional incivilities (mainly dilapidation of house exteriors). Although not shown in Table 15, correlations focusing just on the incivilities component of perceived problems does not help any.

With crime and demographics out of the matrix there were some correlations that are not shown in Table 15 but worth mentioning. The reported crime and victimization rates were only inconsistently related to demographics and the social and physical environment. As predicted by incivilities theory, reported crime was related to graffiti on public property (r = .37). Crime was also related to less residential stability (r = -.32), less home ownership (r = -.32), and to fewer minority residents (r = -.32). Victimization was understandably related to lower satisfaction with the block (r = -.37) and more litter (r = .30), perceived crime (r = .41) and fear of crime (r = .33). But crime and victimization did not correlate alike with any variable.

Multiple Regressions Predicting Participation

A full-model, block-level multiple regression, using all of the pre-secondary factor analysis variables, predicted over 90% of the variance in block association participation. Due to the large number of independent variables and relatively small n of blocks, however, the size of the model was reduced substantially in order to keep the multiple regression analysis as parsimonious as possible. The physical environment and social climate predictors underwent secondary factor analysis (see above). And the crime and demographic sets were dropped out of the model altogether based on their lack of correlation with participation in block associations. Again, the block-level alpha (significance) criterion of .20 is in effect. The results of a series of reduced-model, block-level, hierarchical regressions predicting level of block association participation appear in Table 16. In each equation, sets are entered in a rationally predetermined order (consistent with the theoretical framework (Figure 1). Entry of variables within sets was step-wise.

Equation 1: the condensed total model on all blocks. In the first stage of regression equation 1, the three built environment factors (narrow, visible streets, near-home barriers, and perimeter barriers) shared 12% of the variance with participation ($p < .15$).

There was little theoretical basis upon which to decide the relative hierarchical priority of the social climate and transient environment. According to the model, the social climate and transient physical environment are equally "transient" and proximate to participation. The social climate variables and the dependent variable were both measured by the resident survey and so may share method variance that

Table 16. Multiple Regressions Predicting Block Association Participation [a]

Equation 1 (Condensed Total Model On All Blocks):

Cluster	R^2 increment	Variable	Final B	Final T value
Built Environment	.117 (p<.15)	Narrow, Visible Street	.118	.75 (ns)
		Near-home Barriers	-.318	-1.77 (p<.10)
		Perimeter Barriers	-.081	-.60 (ns)
Territorial Functioning	.070 (p<.20)	Territorial Markers	.042	.29 (ns)
		Dogs	-.058	-.40 (ns)
Physical Incivilities	.026 (ns)	Litter & Dilapidation	.182	1.22 (ns)
		Public & Private Graffitti	-.140	-.95 (ns)
		Empty Buildings	.306	1.84 (p<.10)
Social Climate	.325 (p<.005)	Neighboring/Social Control	.464	2.57 (p<.05)
		Sense of Community Well-being	.306	1.47 (p<.20)
		Communitarian Efficacy	-.025	-.15 (ns)
		Perceived Block Problems	.208	1.23 (ns)
		Perceived Increased Risk	-.154	-.85 (ns)

R^2 = .538; Adjusted R^2 = .356 (F(13, 33) = 2.96; p<.01)

Equation 2 (Condensed Total Model On Organized Blocks Only):

Cluster	R^2 increment	Variable	Final B	Final T value
Built Environment	.050 (ns)	Narrow, Visible Street	.093	.47 (ns)
		Perimeter Barriers	-.066	-.35 (ns)
		Near-home Barriers	-.333	-1.34 (p<.20)
Territorial Functioning	.154 (p<.10)	Territorial Markers	-.288	-1.34 (p<.20)
		Dogs	.171	.86 (ns)
Physical Incivilities	.066 (ns)	Litter & Dilapidation	-.007	-.03 (ns)
		Public & Private Graffitti	-.110	-.54 (ns)
		Empty Buildings	.008	.03 (ns)
Social Climate	.302 (p<.05)	Perceived Block Problems	.246	1.16 (ns)
		Communitarian Efficacy	.248	1.02 (ns)
		Perceived Increased Risk	-.116	-.48 (ns)
		Neighboring/Social Control	-.177	-.57 (ns)
		Sense of Community Well-being	.790	2.50 (p<.05)

R^2 = .572; Adjusted R^2 = .294 (F(13, 33) = 2.06; p<.10)

(continued)

[a] n of blocks for Equation 1 = 47; n of blocks for Equation 2 = 34; listwise deletion.

Table 16, Continued:
Multiple Regressions Predicting Block Association Participation [a]

Equation 3 (Physical Environmental Predictors Only):

Cluster	R^2 increment	Variable	Final B	Final T value
Built Environment	.204 (p<.15)	Street Width	.108	.62 (ns)
		Visible Window	.216	1.18 (ns)
		Proportion Attached Bldgs.	-.147	-.68 (ns)
		Barrier On Property	-.322	-1.64 (p<.15)
		Barrier Around Property	-.504	-1.79 (p<.10)
		Gate	.281	1.18 (ns)
Territorial Functioning	.137 (p<.15)	Personalizations	.082	.47 (ns)
		Private Plantings	-.326	-1.58 (p<.15)
		Public Plantings	-.316	-1.89 (p<.10)
		Dogs	-.058	-.40 (ns)
Physical Incivilities	.103 (ns)	Exterior Dilapidation	.425	1.95 (p<.10)
		Litter	-.349	-1.79 (p<.10)
		Graffitti on Public Property	-.013	-.08 (ns)
		Graffitti on Private Property	.007	.04 (ns)
		Empty Buildings	-.018	-.09 (ns)

R^2 = .444; Adjusted R^2 = .175 (F(15, 31) = 1.65; p<.15)

Equation 4 (Social Climate Predictors Only):

Cluster	R^2 increment	Variable	Final B	Final T value
Perceived Conditions	.248 (p<.01)	Perceived Incivilities	.472	3.00 (p<.01)
		Perceived Increased Risk	-.064	-.49 (ns)
		Perceived Crime Problems	-.353	-2.05 (p<.05)
Attitudes	.186 (p<.10)	Communitarianism	-.172	-1.24 (ns)
		Block resident recognition	.076	.60 (ns)
		Fear of Crime	.127	.87 (ns)
		Perceived B.A. Efficacy	.223	1.74 (p<.10)
		Block Satisfaction	.466	3.06 (p<.005)
		Sense of Community	-.548	-2.48 (p<.05)
Behaviors	.233 (p<.005)	Socialize with Neighbors	.445	2.83 (p<.01)
		Informal Social Control	.024	.16 (ns)
		Nbrs. Watch After Nbrs.	.510	3.05 (p<.005)
		Neighboring	-.100	-.54 (ns)

R^2 = .668; Adjusted R^2 = .537 (F(13, 33) = 5.10; p=.0001)

(continued)

[a] n of blocks = 47; listwise deletion.

Table 16, Continued:
Multiple Regressions Predicting Block Association Participation

Equation 5 (Cross-method Prediction of Participation (Member Survey [a] Dimension) by Social Climate (Resident Survey)):

Cluster	R^2 increment	Variable	Final B	Final T value
Perceived Conditions	.146 (p<.20)	Perceived Incivilities	.671.	2.16 (p<.05)
		Perceived Increased Risk	.025	.11 (ns)
		Perceived Crime Problems	-.796	-1.91 (p<.10)
Attitudes	.280 (p<.15)	Communitarianism.	-.277	-.94 (ns)
		Fear of Crime	-.211	-.82 (ns)
		Block resident recognition	-.376	-1.66 (p<.15)
		Perceived B.A. Efficacy	.360	1.61 (p<.15)
		Block Satisfaction	.399	1.55 (p<.15)
		Sense of Community	-1.105	-2.24 (p<.05)
Behaviors	.138 (ns)	Informal Social Control	.130	.56 (ns)
		Neighboring	.251	.99 (ns)
		Nbrs. Watch After Nbrs.	.731	2.29 (p<.05)
		Socialize with Neighbors	.313	.96 (ns)

R^2 = .564; Adjusted R^2 = .281 (F(13, 20) = 1.99; p<.10)

[a] Equation 5 uses only organized blocks (n = 34).

could overwhelm any later effects. The transient physical environmental variables were therefore entered into the regression next. And since the territorial functioning variables, such as plantings and personalizations, were considered more temporally stable than physical incivilities, such as litter and graffiti, the territorial set was entered before incivilities.

The two territorial factors, markers and dogs, added seven percent to the variance explaining participation in block associations ($p < .20$). The third stage of the regression, the three physical incivilities factors, added only three percent (ns) to the explained variance. The social climate factors were then entered and together contributed significantly (R^2 change = .33, $p < .005$) to the regression, beyond the influence of the physical environment. The entire model explained 36% (unadjusted R^2 = .54) of the variance in block association participation ($p < .01$).

Table 16 presents the final beta weights for each factor in each equation. But even with the reduction of predictor variables, the high degree of multicollinearity (see Table 15) and high variable to n ratio makes individual beta values fairly unstable. Conclusions should only be drawn from them with great caution. Four betas in the total model/total sample equation (1) were significant: participation in block associations was predicted by a greater number of positive social behaviors on the block, fewer near-home barriers, more empty buildings on the block, and a greater sense of community well-being.

Equation 2: the condensed total model on organized blocks only. The second equation tests the same social and environmental framework on just the 34 organized blocks to see whether a more normally shaped distribution would make a difference. In

the first stage, the built environment explained five percent of the variance in block association participation (ns). Territorial functioning added 15% ($p < .10$) and physical incivilities seven percent (ns) explained variance. In the final stage, the social climate factors contributed 30% ($p < .05$) additional variance, over and above the prior stages of the model. All of the predictors combined to explain 29% (unadjusted $R^2 = .57$) of the variance in block association participation ($p < .10$). The only significant betas in the full equation were sense of community well-being, (fewer) near-home barriers, and (fewer) territorial markers.

Equation 3: Physical Environmental Predictors Only. This equation, which uses all 47 blocks, excludes the social climate variables for a dual purpose: (1) to allow the pre-secondary factor analysis component variables to be tested for their relative contribution to the model and (2) to provide a greater chance for physical environmental final betas to be significant. In the first stage of this regression, the six built environment component items explained 20% of the variance in block association participation ($p < .15$). In the next stage, the four individual territorial functioning variables added significantly to the prediction (R^2 increment = .14, $p < .15$). Finally, the five physical incivility items contributed an additional 10% (ns) to the overall shared variance between the physical environment and block association participation ($R^2 = .44$, adjusted $R^2 = .18$, $p < .15$).

Examination of the final beta weights suggests that participation in block associations is associated with fewer barriers, fewer plantings, more dilapidated houses, and less litter. A comparison of the betas with the zero-order correlations in Tables 13 and 14, however, shows that the "relationships" with barriers around the

property and with litter are due to suppression. (Although the unintentional incivilities together are not significantly related to block association participation, dilapidated exteriors alone was related ($r = .28$, $p < .05$).)

Equation 4: Social Climate Predictors Only. This equation serves the same function as the last one, but for the social climate set instead. It excludes the physical environment in testing the (pre-secondary factor analysis) social climate component variables in a regression model using all blocks. The social climate variables were divided into three sets consistent with the rationale of the secondary factor analysis (above). The rationale for the order of set entry was a basic psychological model: (1) cognition, or awareness, followed by (2) attitude formation, followed by (3) behavior. (It may be doubly appropriate for behaviors to enter last since the dependent variable is also a behavior.)

In the first stage of the regression, the awareness, or perception, of problems set shared 25% ($p < .01$) of the variance in block association participation. The attitude-based climate set contributed an additional 19% ($p < .10$) of the variance explaining participation. And behaviors added significantly greater explanatory power to the equation (R^2 increment = .23, $p < .005$). The entire social climate portion of the framework explained 54% ($p = .0001$) of the variance in block association participation (unadjusted $R^2 = .67$).

Examining significant final betas, participation in block associations was associated with greater block satisfaction, neighbors watching out for each other, perceived incivilities, more socializing among neighbors, greater perceived block association efficacy, fewer perceived crime problems, and less sense of community. The beta

values for these last two variables should be ignored given that a comparison with the corresponding zero-order correlations in Table 14 clearly reveals suppression effects. Two of the variables that explanatory variance was probably "suppressed from" in this equation are (less) perceived increased risk of victimization and (greater) neighboring behavior.

Equation 5: Cross-method Prediction of Participation by Social Climate: This equation tests the same social climate component variables from the last equation (based on the resident survey) for their ability to predict the member survey component of participation in block associations. This component may be more accurately described as the mean level of activity and responsibility among block association members. This provides a more conservative test of the last regression model since variance shared between the independent and dependent variables cannot be due to their being derived from the same survey and the same individual-level sample. (Although some respondents may have completed both surveys, it should be noted: (a) that a minority of block association members completed the resident survey (which also included many nonmembers and inactive members) and (b) that the member survey data (i.e., the dependent variable in this equation) was collected several months after the resident survey, which makes this equation the only longitudinal analysis in the study.) Since the member survey was only conducted in block associations, the sample was restricted to organized blocks.

In the first stage of the regression, block-level perceived problem conditions explained 15% of the variance in "member" participation ($p < .20$). The attitude-based set was then entered and it explained an additional 28% of the variance in the

dependent variable ($p < .15$). The behavioral set added 14% (ns) more explained variance to the equation, over and above the first two stages. As a whole, Equation 5 explained 28% ($p < .10$) of the variance in member-survey-based participation (unadjusted $R^2 = .56$). Significant final betas included neighbors watching out for each other, perceived incivilities, perceived block association efficacy, block satisfaction and three likely suppression effects (less sense of community, fewer perceived crime problems, and less block resident recognition).

Summary of Results

At the individual level of analysis, members of block associations had greater demographic "resources" and community ties and scored consistently more favorably than nonmembers and residents of unorganized blocks on block-focused attitudes and behaviors. Although there were no significant differences in victimization, members enganged in more individual and collective crime prevention activities than the other two groups. The curvilinear hypothesis of fear and participation was not supported. Individuals were found to be nonindependent of blocks and blocks nonindependent of neighborhoods, although the latter effect was due mainly to neighborhood demographic differences.

At the aggregated block level of analysis, there were no significant differences in demographics or crime between organized and nonorganized blocks. There were, however, several differences in the built and transient environment and social climate of organized and nonorganized blocks. These block-level effects emerge even more strongly in the correlational analyses. Factors within the various domains of the block physical and social environment correlated significantly within and across domains and

methods (even after partialling the influence of block racial makeup). They also correlated significantly with participation in block associations and with collective and individual crime prevention activities. Finally, except for physical incivilities, each of those domains - the built environment, territorial functioning, and the social climate - contributed significant variance to the series of hierarchical regression equations predicting participation in block associations.

V. DISCUSSION

The purposes of this study were: (a) to present a block-level theoretical framework of crime-related social and physical environmental correlates of participation in block associations and collective and individual crime prevention; (b) to introduce a new method for objectively measuring the physical environment of residential blocks; (c) to determine the differences between members and nonmembers of block associations on both general and crime-focused attitudes, perceptions and behaviors; (d) to determine the differences between between organized and nonorganized blocks on these same variables and on crime and physical signs of social disorder, territoriality, and "defensibility;" (e) to explore how the various physical and social environmental characteristics of blocks are interrelated; and, perhaps most important, (f) to test both the framework and the environmental method for their ability to explain a significant portion of block-level variance in block association participation.

The most important finding of this study is that the built and transient physical environment and social climate are indeed significantly and independently related to

collective participation in block associations. Furthermore, the Block Environmental Inventory proved to be a reliable instrument for describing community settings in a way that can be usefully related to indicators of social climate, crime and demographics as well as participation in community organizations.

Parts of the framework were unsupported, however. Almost all of the demographic and explicitly crime-related factors in the proposed framework were not significantly related to participation in block associations. The only demographic exception was the hypothesized racial effect, but even that may have been due to a planned bias in the sample selection procedures that favored organized minority blocks. The only crime-related exception was that blocks in which residents perceived a greater increase in risk of victimization had lower levels of participation in block associations. Since we know that crime rates actually were increasing in these neighborhoods and that collective participation does not seem to be related to actual or perceived crime, the different results for perceived conditions and a perceived change in conditions may reflect a social desirability effect: block association participants may be willing to admit that there are problems (which, after all, justifies the *raison d'etre* of the organization), but they are less willing to admit that the problems have gotten worse, which might reflect badly on the effectiveness of the organization and the future of the block. This interpretation is consistent with the individual-level comparisons in Table 7.

Constraints on Generalizability

The above questions do point to certain limitations in generalizing from the present study. The differences in block association participation correlations in

Tables 13 and 14 between the total sample of blocks and organized blocks only suggests that there may be unique social processes occurring on the two types of blocks. The differences between these processes were explored in only a preliminary way in those tables and in the comparisons between organized and unorganized blocks (Tables 1 and 12) and in the regression models using organized vs. all blocks (Table 16). It may be particularly questionable to generalize from these data about how unorganized blocks might become organized.

Furthermore, the results in Table 11 make it clear that there are some important (mainly demographic) differences between the neighborhoods selected for this study. It may be questionable, therefore, to draw conclusions about the entire sample (across all three neighborhoods) based on block and individual-level data. It would be even more questionable to infer anything about communities unlike those represented here. Some of the exceptional features of the sample include: (a) two out of three neighborhoods which were low-income or working-class and minority yet with a large proportion of homeowners, (b) all neighborhoods had been experiencing increasing rates of reported crime while city-wide rates were holding steady or declining, and (c) a housing density and architectural style that is more crowded and "urban" than most suburban areas but less so than most of the rest of New York City or other large inner-city residential areas.

The sample is not unique, however. Each of these characteristics describes the growing "inner ring" of poor and working-class neighborhoods that are now surrounding the refurbished and gentrified center cities of America. The inhabitants

of these neighborhoods have either moved up and out of poorer inner-city areas or have been forced out of neighborhoods with rapidly increasing housing costs. With regard to the rising crime rate, this has been generally true of urban areas over most of the past 30 years. The brief and slight downward trend in the early to mid-1980s just prior to the collection of these data was thus more of an anomoly than the upward pattern in the present sample. Besides, if crime-related factors are largely unrelated to collective participation in high and rising crime areas, it seems unlikely that they would be more related in areas of low or decreasing crime, where crime is presumably less of an issue. Again, these neighborhoods were selected in part to give crime its "best shot" at being a viable catalyst for community organizing.

The sampling issue which poses the most serious constraint to generalizability is the possible confounding of certain demographic and environmental variables with each other and with participation rates. For example, with limited variance in the variable street width, the fact that the widest single block (somewhat of an "outlier" in that it was the only street with a median strip) happened to have a large number of active participants may have boosted any correlation between those variables. It is difficult to predict what other demographic or environmental variables may be confounded in these data. But the only way to have avoided such problems would have been to use even more selection criteria (e.g., to exclude blocks with a median). By being somewhat more, rather than less, inclusive, however, the sample as a whole should be that much more representative.

Understanding the Possible Effects of Participation in Block Associations

According to Table 12, there may be some benefits of block associations,

including collective crime prevention activity and more positive and cohesive social behaviors on the block (although it is possible that these factors were preexisting and that they encouraged the development of an organization). The finding that organized blocks had more public street lighting verifies that that may be the focus of organizational activity on some blocks, which is why it and a few other environmental items were excluded from the analyses predicting participation in block associations. Not all of the comparisons between organized and unorganized blocks were positive, however. For example, organized blocks had somewhat greater objective physical incivilities than nonorganized blocks.

The many individual-level differences between members of block associations, nonmembers living on organized blocks, and residents of nonorganized blocks (Table 7) have even greater implications for understanding the social benefits of participation in block associations. In particular, there was apparently little "free rider" effect (or, alternatively, little systems-level change): It seems you must individually participate to reap most of the social benefits of organization. In fact, non-members on organized blocks scored worse on some variables - including fear of crime, individual protections, and sense of community - than residents of nonorganized blocks (although the sense of community and protections effects may be due to nonmembers' lower residential stability and lower home ownership, which are both associated with those two variables). In any case, the pattern for those variables in which the means for nonorganized blocks falls between those of members and nonmembers supports a kind of "polarization" theory of participation: that organized and nonorganized blocks are made up of the same distribution of

people but when a block organizes (for whatever reason), it separates the "participants" from the "nonparticipants." The pattern for most of the social benefits of block association participation fits a qualified, free-rider effect better than a polarization effect, however: just living on an organized block helps a little on certain variables, but participating helps significantly on almost every variable.

Implications for "Boosting" Participation in Community Organizations

This dissertation was part of the Block Booster Project, an action study with two major goals: (a) evaluate the role of block associations in fighting crime, reducing the fear of crime, and encouraging community social and environmental development and (b) assess the organizational characteristics of block associations and develop training materials to help block association leaders maintain and strengthen their organizations. In the larger project, block associations were analyzed longitudinally for characteristics that distinguished viable groups from those that eventually declined in inactivity. The action part of the project developed and field tested a survey-guided technical assistance strategy to help community organizations remain vital and maximize their capacity. This grass-roots organizational development approach, which is tailored to the specific strengths and weaknesses of the organization and conditions on each block, was labeled the "Block Booster Process," and refined through scientist-citizen-practitioner collaboration by two of the senior members of the research team.

The results of the present study bear on this applied purpose in a variety of ways. The fact that length of residence, home ownership and income were all positively related to individual-level, but not block-level, participation suggests that (a) poor

and residentially unstable communities can develop a level of citizen involvement equal to other communities, but (b) within a given community, those individuals with more resources and a greater vested interest in property are still more likely to participate. More important, the correlational results suggests that the social and physical environment of the community is more important for block-level participation than are demographic characteristics or crime-related problems, perceptions and fears.

The encouraging implication of this finding is that it gives community organizers and leaders something to work with in the inevitable challenge to increase and maintain participation. There is little one can do to manipulate the demographic characteristics of one's community, aside from moving. Nor is it easy to reduce an entrenched crime or drug problem at the grass-roots level. As suggested by the positive correlation found between perceived problems and fear, simply informing residents about crime and other problems, as single-issue and less instrumental community organizations often do, may only make them afraid and/or pessimistic about solving them. But, with the help of even a fledgling community development organization, the social climate, transient physical environment and even the "micro" built environment are somewhat easier to change. For example, a block clean-up activity can be used to elicit participation directly and indirectly, by enhancing residents' block satisfaction and encouraging neighboring behavior.

The lack of significant cross-sectional correlation, or mean difference, for block-level participation in block associations with crime, victimization, fear of crime, perceptions of crime, and informal social control is noteworthy. It is consistent with

recent reports that peoples' reactions to crime are often more emotionally and behaviorally debilitating than constructive (Taylor & Perkins, 1987). If one's aim is to increase crime prevention activities, these data support block associations as an effective conduit. But if one's aim is to organize and develop communities more generally, the data suggest that crime may not be the most effective issue around which to organize even urban communities, like those in this study, that are understandably concerned about crime.

It is possible that the cross-sectional data masks a process in which residents initially organize in part because of a higher block crime rate, which is then reduced to the level of the rest of the neighborhood. Whether or not crime is much affected by collective participation, however, block associations are clearly related to other environmental and, particularly, individual-level benefits, such as block satisfaction and sense of community, which may buffer the emotional impact of participants' heightened perception of incivilities.

Indeed, the fact that there was no significant zero-order correlation between fear and block association participation actually represents an improvement over the results of traditional victimization prevention programs which have been shown to increase members' fear (Rosenbaum, 1986). Longitudinal, quasi-experimental research is needed, however, to determine whether multi-issue organizations can, over time, reduce urban crime, fear and disorder. Because substantial crime reduction has been such an elusive finding - one that may depend on more centralized, large-scale political and economic intervention - and because of the difficulties inherent in measuring crime, many researchers may wish to focus on

issues other than crime to assess the impact of collective participation. However, the mere fact that high concentrations of community organization were found in high-crime, lower-income areas (where community development is most needed but mobilization has proved most difficult) and the fact that those organizations were associated with greater crime prevention efforts and greater social cohesion and community satisfaction, at least for its active members, are important findings.

Several of the environmental items expected to be positively related to participation in block associations turned out to be negatively related. Defensible space theory recommends the erection of barriers, not only to physically exclude outsiders, but to promote a sense of ownership and use of the enclosed space and thus greater social contact. The exact placement of barriers is critical, however. These data suggest that barriers on private property, as opposed to around the property, may discourage social contact and cohesion and thus collective participation. Other studies (e.g., Podolefsky, 1983) have found a negative relationship between the informal social cohesion of a community and the extent of formal participation in the community, as if the latter is an attempt to lend order to the community "artificially." In this study, participation in block associations was positively associated with social cohesion, as evidenced by block satisfaction and neighboring, for example.

But the idea of a compensatory effect of participation suggests another possible interpretation of the contrary environmental results, including the negative relationship of collective participation to two signs of territoriality (exterior maintenance - i.e., the opposite of dilapidation - and trees, shrubbery and gardens).

Perhaps participation in a community organization can be viewed, in part, as compensation for certain weaknesses in the physical environment. Communities with no environmental problems may not need to organize. But where residents find their block lacking in physical barriers (e.g., fences or walls) or territorial symbols (e.g., well-maintained property) or in subjectively perceived quality of life (as evidenced by perceived incivilities), if they also have sufficient social cohesion they may organize and participate to fulfill these needs in other ways. Whether or not they are successful at alleviating the original problem, once organized and active, participants in block associations often work to improve other aspects of the community. The finding that block satisfaction and fewer perceived problems were related to block association participation in opposite ways suggests that they should not be combined as one variable even if they are related to each other (cf. Florin & Wandersman, 1984).

Implications for Understanding Vigilantism and Moral Enterprise

The fact that participation in block associations appears to be less closely associated with crime and related concerns than expected may be a blessing in disguise. As explained in the introduction, vigilantism and "moral enterprise" are always a danger when the community acts primarily out of concern over crime, "deviance" and disorder. The present results support the historical observation that, within high crime neighborhoods, the most active participants (at the individual, but not the block, level of analysis) are those with the greatest personal resources, such as owning their home, and therefore the most vested interest in the security of property (Brown, 1976; Johnson, 1981; Erikson, 1966). The same is generally true

of block-level participation in both collective and individual victimization prevention. Unlike descriptions of pioneer vigilantism, however, what Rosenbaum and Sederberg (1976) and others have called "modern vigilantism" (i.e., law-abiding, collective crime prevention activities) appears to be a trademark of more organized communities.

The present results also offer a test of Becker's (1963) theory of "moral enterprise" as applied to organized and informal enforcement of community rules by ordinary citizens. Contrary to the social reactions theory of deviance, "informal" moral enterprise (social control) was not significantly related to actual deviance (crime and victimization rates) and was related to less fear of crime, perceived crime problems, and actual (independently observed), but not perceived, physical incivilities (disorder). "Formal" moral enterprise (collective crime prevention) was not significantly related to actual or perceived deviance, but was related to perceived incivilities. The fact that formal and informal moral enterprise were both associated with home ownership is consistent with the political interpretation that reactions to deviance flow from vested interest in protecting one's property (Schur, 1980). The social climate variables were even more consistently related to formal moral enterprise, however.

Future Research

Additional constructs and measures are needed to enhance our understanding of the context of citizen participation. The finding that perceived and actual physical incivilities were generally unrelated is contrary to results by Perkins, Meeks, and Taylor (1989), who found them to be closely related using similar, but not identical,

methods. It underscores the importance of objectively and independently measuring the physical environment and suggests that future research should continue to measure both the subjective and objective community environment and invesitigate the locus of the different results: Are they due to different survey measures? Different environmental measures? Different populations? Different cities?

In-person observation of community research sites was found to be important for another reason. Many researchers are content to have their data collected "in absentia," without ever setting foot inside the study area or talking to any of the population. It is clear from the present study that those who do so risk misinterpretating their data and losing a rich source of additional, "hands-on" data (Perkins & Wandersman, 1990). Future research on participation in community organizations would thus do well to combine quantitative survey, environmental and archival data with more qualitative field observations and interviews with professional organizers and community leaders.

Analysis of the determinants of participation in other kinds of grassroots organizations (e.g., tenants' associations, unions, or self-help groups) is also needed to develop confidence in interpretations. The present results suggest that additional, "real world" cross-validation would be particularly beneficial for the further development of theories of vigilantism and "moral enterprise."

The vast majority of psychological research, even in community psychology, is based on individual-level analyses that often confuse individual and various group-level effects. This study focused on individual and then block-level effects, but did

not do so simultaneosly. It did not provide a direct comparison of effects at the two different levels. This study also found that there may be important neighborhood-level effects that were treated here as individual and block-level demographic effects. Future community-based research should therefore allow for simultaneously teasing out relative effects at all the relevant levels of analysis.

The interactive nature of the relationship between the more transient social and physical environment, on the one hand, and citizen participation, on the other, often makes it difficult to determine which causal direction predominates at any given time or place or with any given variable. Although the nature of some variables as stable and others as more transient helped in the interpretation of the present results, the potential confusion was compounded by the use of a cross-sectional design. Thus, future research should also be conducted longitudinally to help sort out the problem of causal direction between collective participation and ecological context.

Implications for Empowerment Theory and Research. The strong, bidirectional relationship between citizen participation and its psychological correlates has also fueled confusion over the exact meaning of "empowerment." The term empowerment has become so overused and ambiguous as to render it practically meaningless. The present model and block level of analysis suggest one possible clarification which might make this concept a more useful represention of a key element in individual and community well-being. Zimmerman and Rappaport (1988), in an effort to distinguish psychological empowerment from other, aggregated levels of empowerment, define the former as "the connection between a

sense of personal competence, a desire for, and a willingness to take action in the public domain" (p.725). Although their measure of psychological empowerment does include political efficacy and civic duty as well as cognitive and personality dimensions, both their measure and the above definition seem to be dominated by an individualistic psychological orientation, as opposed to a community psychological or ecological orientation. Just as the environment and social climate may act as catalysts for collective participation and just as organizations may set the conditions that allow social support to emerge, empowerment occurs in a context. It is perhaps not so surprising that, controlling for more permanent social and physical environmental characteristics, the community-oriented aggregated psychological variables in the present study, such as neighboring, and satisfaction with community, correlated with the present measure of citizen participation, which was itself explicitly community-oriented. On theoretical grounds alone, however, empowerment, even at the psychological level, should have a clear communitarian, or collectivist, orientation. An alternative definition of empowerment might thus be: the belief in the potential collective, democratic control over an institution among the community of participants (clients and workers) in the institution. This would have the conceptual benefit of distinguishing empowerment from self efficacy and internal locus of control, which focus on individual behavior, and from informal social control, which is rarely democratic and can also operate on a purely individual basis. Furthermore, it might have the practical benefit of steering people toward collective action, which is likely to be more effective than individual action in solving collective problems.

Conclusion. Meanwhile, grassroots leaders are not waiting for the empirical solution to the issues of causal direction; they will continue to engage the social and physical environment in order to elicit greater participation and to use participation to enhance the social and physical context of their communities. Through collaboration with community organizations, researchers can play an important role by helping community leaders and public officials plan effective organizing strategies. Investigators should identify, as precisely as possible, both the environmental and the psychological correlates of citizen participation so that practitioners and community leaders can know which realistic strategies are most likely to induce resident involvement in grassroots organizations. A crucial, but often forgotten, follow up step is to then develop effective means of dissemination for feeding back to leaders and residents both general information (e.g., on organizational methods and structure; or on dealing with police and other agencies) and site-specific data (e.g., local environmental conditions, crime rates, attitudes and perceived needs) that may be useful in organizing. Finally, researchers should help grass-roots organizations to evaluate their organizing, organization development and other participation and leadership enhancement strategies and the effects of participation on community conditions so that (a) the organizations receive data-based feedback that is useful and (b) the public policy debate over the use of community organizations to combat social problems can be empirically well informed. Strong evidence that general-purpose voluntary associations can play a role in stabilizing neighborhoods and promoting community development could arm participation advocates with persuasive arguments for investing social resources in

the encouragement of community organizations which contribute to individual and group empowerment.

In 1962, Greer argued that knowledge of the dynamics between neighborhood conditions and individual characteristics is required to adequately understand social behavior in its myriad ecological and issue contexts. It is time that communty researchers and other social scientists take that dictum as axiomatic. One consequence of this inattention to context is that, despite its promise of relevance and utility, such research has rarely overcome traditional problems of communication among scientists, practitioners and citizens. Clear and meaningful communication among these groups is the lifeblood of healthy and productive collaboration in community research (Chavis, Stucky & Wandersman, 1983; Perkins & Wandersman, 1990). Not only do researchers usually speak an unnecessarily "foreign" theoretical and methodological language, but we also tend to ignore the immediate social and, especially, physical environmental context of social phenomena in an effort to examine the presumed essence of the behavior, as if it could be isolated from its setting or the issues which motivate people. Far from helping us derive universal laws of community behavior, however, a "context-free" focus obscures the very meaning of the behavior we wish to understand and hinders the communication that is necessary for effective community intervention.

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APPENDIX 1: NEW YORK CITY BLOCK SURVEY TELEPHONE INTERVIEW
1985-86 BLOCK BOOSTER (NEW YORK CITY) TELEPHONE SURVEY:
PART 1: SELECTED ITEMS & SCALES

Scales published in appendices of:

Perkins, D.D., Florin, P., Rich, R.C., Wandersman, A. & Chavis, D.M. (1990). Participation and the social and physical environment of residential blocks: Crime and community context. *American Journal of Community Psychology, 18*, 83-115.

Long, D.A., & Perkins, D.D. (2003). Confirmatory Factor Analysis of the Sense of Community Index and Development of a Brief SCI. *Journal of Community Psychology, 31*, 279-296.

See also: Perkins, D.D., Brown, B.B., & Taylor, R.B. (1996). The ecology of empowerment: Predicting participation in community organizations. Journal of Social Issues, 52, 85-110.

Perkins, D.D., Wandersman, A., Rich, R., & Taylor, R. (1993). The physical environment of street crime: Defensible space, territoriality & incivilities. Journal of Environmental Psychology, 13, 29-49.

SENSE OF COMMUNITY INDEX (SCI)[1] (alpha) = .80, n=720) (True/False):
I am going to read some things that people might say about their block. Each time I read one of these statements, please tell me if it is mostly true or mostly false about your block simply by saying "true" (2=MORE SOC) or "false" (1=LESS SOC).

SOC1T1 [V7]. I think my block is a good place for me to live.
SOC2T1 [V8]. People on this block do not share the same values. (reverse)
SOC3T1 [V9]. My neighbors and I want the same things from the block.
SOC4T1 [V10]. I can recognize most of the people who live on my block.
SOC5T1 [V11]. I feel at home on this block.
SOC6T1 [V12]. Very few of my neighbors know me. (reverse)
SOC7T1 [V13]. I care about what my neighbors think of my actions.
SOC8T1 [V14]. I have almost no influence over what this block is like. (reverse)
SOC9T1 [V15]. If there is a problem on this block people who live here can get it solved.
SOC10T1 [V16]. It is very important to me to live on this particular block.
SOC11T1 [V17]. People on this block generally don't get along with each other. (reverse)
SOC12T1 [V18]. I expect to live on this block for a long time.

SEPARATE ITEMS:

NBRWTCT1 [V6]. In general, would you say that people on your block watch after each other and help out when they can (3), or do they pretty much go their own way (1)? ("little of both"=2)

GENSOCT1 [V20]. Some people say they feel like they have a sense of community with the people

[1] ***8-item Brief Sense of Community Index (BSCI):*** *Coefficient α = .65 (Time-1; N = 713), .73 (Time-2; N = 422): Factors/Subscales: MC = Mutual Concerns: SOC3T1 (v9), SOC9T1 (v15), NBRWTCT1 (v6) [coefficient α = .50 (Time-1; N = 820), .64 (Time-2; N = 485)]; SC = Social Connections: SOC4T1 (v10), SOC6T1 (v12), SOC8T1 (v14) [coefficient α = .55 (Time-1; N = 917), .50 (Time-2; N = 544)]; CV = Community Values: GENSOCT1 (v20), IMPSOCT1 (v21) [coefficient α = .51 (Time-1; N = 1040), .61 (Time-2; N = 621)].*

Place Attachment Scale based on SCI items: Std item scale Alpha = .65)
ZSOC1T1 (std version of v7)
ZSOC5T1 (std version of v11)
ZSOC10T1 (std version of v16)
ZSOC12T1 (std version of v18)

on their block; others don't feel that way. Do you feel a strong sense of community with others on your block (3), very little sense of community (1), or something in between (2)?

IMPSOCT1 [V21]. Would you say that it is very important (3), somewhat important (2) or not important (1) to you to feel a sense of community with the people on your block?

V19. Most people who live on this block would be able to tell if someone was a stranger or a block resident. (1=false, 2=true)

Recommendation for future use of BSCI: reword the 3 face-valid items [NBRWTCT1 (v6), GENSOCT1 (v20), IMPSOCT1 (v21)] as follows:
"In general, people on my block watch after each other and help out when they can."
"I feel a strong sense of community with others on my block."
"It is very important to me to feel a sense of community with the people on my block."
Put all 8 BSCI items on a 4 or 5-point scale [from "strongly agree" to "strongly disagree"].

COMMUNITARIANISM (alpha = .68, n=1009):

IMPSOCT1 [V21]. Would you say that it is very important(3), somewhat important (2) or not important (1) to you to feel a sense of community with the people on your block?

V66. Some people care a lot about the block they live on; for others the block is not important. How important is what your block is like to you? (1=not, 2= somewhat, 3=very)

V67. How important is it to you that people on your block work together to improve block conditions? (1=not, 2= somewhat, 3=very)

V68. How important is it to you that you be actively involved in any efforts that residents might make to improve your block? (1=not, 2= somewhat, 3=very)

PERCEIVED BLOCK ASSOCIATION EFFICACY (alpha = .82, n=901):
(If a block association was formed here) how likely is it that the association could accomplish each goal: (1=not likely, 2=somewhat likely, 3=very likely)

Improve physical conditions on the block like cleanliness or housing upkeep?
Persuade the city to provide better services to people on the block?
Get people on the block to help each other more?
Reduce crime on the block?
Get people who live on the block to know each other better?
Get information to residents about where to go for the services they need?
Provide programs for young people on the block?

BLOCK SATISFACTION (alpha = .59, n=818):

All things considered, how satisfied are you with this block as a place to live? (1=dissatisfied, 2=satisfied)

Comparing your block to other blocks in the area, is your block a better place to live (3), a worse place to live (1) or about the same (2)?

In the past two years, have the general conditions on your block gotten worse (1), stayed about the same (2) or improved (3)?

In the next two years, do you feel that general conditions on your block will get worse (1), stay about the same (2) or improve (3)?

PERCEPTION OF BLOCK PROBLEMS:
Please tell me if (each of the following) is a serious problem (3), a minor problem (2) or no problem at all (1) on your block:
Perceived Crime/delinquency Problems (alpha = .78, n=813)
Vandalism (eg: breaking windows, painting on cars or walls)?
Drug dealing?
Groups of young people hanging around?
Robbery or assault of people on the street?
Burglary of homes when people are away?
Perceived Incivilities (alpha = .65, n=1052)
People who don't keep up their property?
Poor sanitation services (eg: trash collection, sewers)?
Litter?

FEAR OF CRIME (1=very safe, 2=fairly safe, 3=unsafe; alpha = .62, n=1056):
How safe would feel being out alone on the block during the day?
How safe would feel being out alone on the block at night?

INFORMAL SOCIAL CONTROL (alpha = .59, n=720):
If someone on the block was letting trash pile up in their yard or on their steps, how likely is it that a neighbor would go to that person and ask that they clean up? (1=unlikely, 2=likely)
If some 10 to 12_year_old kids were spray painting the sidewalk on the block, how likely is it that some of the neighbors would tell them to stop? (1=unlikely, 2=likely)
If a suspicious stranger was hanging around the block, how likely is it that some of the neighbors would notice this and warn others to be on guard? (1=unlikely, 2=likely)

NEIGHBORING BEHAVIOR (total scale (given + received) alpha = .76, n=999)
Neighboring given:
I am going to read a short list of things neighbors might do for each other. Each time I read one, please tell me if, in the past year, you have been asked to do that for any of your neighbors on this block. If yes, how many? (exact #: 0-7, 8=8 or more)
Watch a neighbor's house while they are away?
Loan a neighbor some food or a tool?
Help a neighbor in an emergency?
Offer a neighbor advice on a personal problem?
Discuss a problem on the block with a neighbor?
Neighboring received:
Which, if any, of the things on (the above) list has at least one of your neighbors on this block done for you in the past year? (1=no (not mentioned), 2=yes (mentioned))

PARTICIPATION IN BLOCK ASSOCIATION ACTIVITIES
Would you say that this block association is very active (3), moderately active (2), or largely inactive? (1)

Have you ever taken part in an activity sponsored by the block association? (1=no, 2=yes)
Thinking about work you might do for the block association outside of meetings, how many hours would you say you give to the association each month, if any? (0-7=exact hours, 8=8 or more)

We would like to know what kinds of things people have done in the association. In the past year, have you (1=no, 2=yes):

Attended a meeting?
Spoken up during a meeting?
Done work for the organization outside of meetings?
Served as a member of a committee?
Served as an officer or as a committee chair?

[The block-level participation measure also includes several items from the block association member survey: the last four items above and six others (1=no, 2=yes):]

In the past 12 months, have you...

Helped organize activities (other than meetings) for the association?
Participated in activities other than meetings (block party, clean-up)?
Tried to recruit new members?
Tried to get people out for meetings and activities?
Served as a representative of the association to other community groups?
Worked on other block association activities?

DEMOGRAPHICS

Thinking about your total family income in [LAST CALENDAR YEAR], which of the following categories did it fall into? (1=under $10K, 2=$10-20K, 3=$20-30K, 4=$30-40K, 5=over $40K)
What was the highest level of education you completed? (1=8th grade or less, 2=some high school, 3=high school graduate, 4=vocational school beyond high school, 5=some college, 6=college graduate, 7=post graduate education)
Which of the following categories describes your race? (1=Black, 2=Hispanic, 3=White, 4=Asian/Oriental, 8=other)
How long have you lived at this address? (1= <2 yrs., 2=2 to 5 yrs, 3=5 to 10 yrs, 4=10+ years)
Do you own your home or are you renting? (1=own, 2=rent)

CRIMINAL VICTIMIZATION

Have you or any member of your household been the victim of a crime in the past three years? (1=no, 2=yes)
What was the crime? (1=theft, 2=burglary, 3=robbery, 4=rape, assault or murder, 5="bunko", confidence theft, forgery, 6=vandalism, 8=other)
How long ago did this happen? (1=< 1 yr., 2=1-2 yrs., 3=2-3 yrs., 4=>3 yrs.)
Did this crime happen on this block (1), elsewhere in this neighborhood (3), or at some other place altogether (4)?
Do you know of anyone living on this block who has had their home broken into in the past year? (1=no, 2=yes)
Do you know of anyone who has been assaulted while on the street on this block in the past year? (1=no, 2=yes)

PART 2: Block Booster Telephone Survey (Time 1: complete)

Q1 Let me begin by asking how long have you lived at this address? VI LENGTH OF RESDEflCE_____

1 LESSTHAN 2 YRS
2 2 TO 5 YRS
3 5 to 10 YRS
4 10 OR MORE YRS
7, 9 DK NA

Q2 All things considered, how satisfied are you with this block as a place to live -- would you say that you are satisfied, dissatisfied or neither?

V2 SATISFACTION WITH BLOCK
1 DISSATISFIED
2:6c SATISFIED
7 DK 9 NA

Q3 Comparing your block to other blocks right around it, would you say that your block is a better place to live, a worse place to live or about the same as other blocks in the area?

V3 COMPARING WITH OTHER BLOCKS . . •
1 WORSEPLACE
2 3£ ABOUT THE SAME
3 22 BETTER PLACE
7 DK 9 NA

Q4 In the past two years, have the general conditions on your block gotten worse, stayed about the same or improved? V4 BLOCK CONDITIONS PAST TWO YEARS

1 GOTTEN WORSE
2X3t ABOUT THE SAME
3XS IMPROVED
7, 9 DK NA

Q5 In the next two years, do you feel that general conditions on your block will get worse, stay about the same or improve? V5 BLOCK CONDITIONS NEXT TWO YEARS

1 GET WORSE
22 ABOUT THE SAME
33 IMPROVE
7 DK 9 NA

PAGE 4

Q6 In general, would you say that people on your block watch after each other and help out when they can, or do they pretty much go their own way

V6 NEIGHBORS WATCH AFTER EACH OTHER
1 GO OWN WAY
2 2 A LITTLE OF BOTH
3 £ WATCH AFTER

7 DK 9 NA

I am going to read some things that people might say about their block. Each time I read one of these statements, please tell me if it is mostly true or mostly false about your block simply by saying "true" or "false". MORE SOC LESS SOC

* 2 frJmm 1*=J«WB 7=DK 9=NA -SENSE OF COlJlUNITY

V7 Q7 I think my block is a good place for me to live.

V8 Q8 People on this block do not share the same values.

V9 Q9 My neighbors and I want the same things from the block.

V10 Q10 I can recognize most of the people-who live on my block.

Vll Q11 I,feel at home on this block.

V12 Q12 Very few of my neighbors know me.

V13 Q13 I care about what my neighbors think of my actions.

V14 Q14 I have almost no influence over what this block is like.

V15 Q15 If there is a problem on this block people who live here can get it solved.

V16 Q16 It is very important to me to live on this particular block.

VI7 Q17 People on this block generally don't get along with each other.

V18 Q18 I expect to live on this block for a long time.

VI9 Q19 Most people who live on this btock would be able to tell if someone was a stranger or a block resident.

TOTSOC = V7+V8+V9+V10+Vll+V12+V13+Vl4-fV15+V16+V17+V18 SOCNEED= V7+V8+V9 SOCMEM = V10+V11+V12 SOCINF = V13+V14+V15 SOCEMOT = V16+V17+V18

*Note: Appropriate reversals of V7-V19 were done to result in this coding format being correct for each item (eg. V8, V12, V14, V17 were reversed)

PAGE 5

Q20 Some people say they fee! like they have a sense of community with the people on their block; others don't feel that way. How about you; would you say that you feel a strong sense of community with others on your block, very little sense of community or something in between?

V20 GENERAL SENSE OF COMMUNITY

1 VERY LITTLE SENSE OF COMMUNITY 22 SOMETHING IN BETWEEN 3S STRONG SENSE OF COMMUNITY

7 DK

9 NA

Q21 Would you say that it is very important, somewhat important or not important to you to feel a- sense of community with the people on your block?

V21 IMPORTANCE OF SENSE OF COMMUNITY

1 NOT IMPORTANT 23 SOMEWHAT IMPORTANT 3S VERY IMPORTANT

7 DK

9 NA

I SOCINC = V20 x V21 |

Q22 How many, if any, of the people who live on your block do you get together with socially at least three or four times a year? V22 NUMBER NEIGHBORS

SOCIALIZED WITH
ON ONE
1-7 EXACT NUMBER
8 8 OR MORE ____
9 DK/NA
I am going to read a short list of things neighbors might do for each other. Each time I read one, please tell me if, in the past year, you have been asked to do that for no one, for one or two, or for several of your neighbors on this block. PAUSE
V23-V27 NEIGHBORING GIVEN
7=DK ' 9=NA
V23Q23 Watch a neighbor's home while they were away.
V2AQ24 Loan a neighbor some food or a tool.
V25Q25 Help a neighbor in an emergencey.
V26Q26 Offer a neighbor advise on a personal problem.
V27Q27 Discuss a problem on the block with a neighbor.
0 NONE 1-7 EXACT NUMBER
8 8 OR MORE
9 DK/NA
NEIBGIVE = V23+V24+V25+V26+V27

PAGE 6
Which, if any, of the things on that list has at least one of your neighbors on this block done for you in the past year?
2 JyYES (MENTIONED) 1 S=NO (NOT MENTIONED) 7=DK 9=NA
r28 Q28 WATCH THE HOUSE
r29 Q29 LOAN FOOD OR A TOOL
'30 Q30 HELP IN AN EMERGENCY
31 Q31 OFFER ADVISE ON A PERSONAL PROBLEM
32 Q32 DISCUSS A PROBLEM ON THE BLOCK
Q33 OTHER
NEIBGET = V28+V29+V30+V31+V32 TOTNEIB = NEIBGIVE + NEIBGET
Now lets go to some questions about how people on your block might react to different situations.
Q34 If someone on the block was letting trash pile up in their yard or on their steps, how likely is it that a neighbor would go to that person and ask that they clean up -- likely, unlikely or neither?
V34 INFORMAL SOCIAL CONTROL 1
LIKELY (HIISC)
UNLIKELY (LOISC:
7 DK/DEPENDS 9 NA
Q35 If some 10 to 12 year old kids were spray painting the sidewalk on the block, how likely is it that some of the neighbors would tell them to stop -- likely, unlikely or neither?
V35 INFORMAL SOCIAL CONTROL 2
2 fc LIKELY (HIISC)

UNLIKELY (LOISC)
7 DK/DEPENDS 9 NA
Q36 If a suspicious stranger was hanging around the block, how likely is it that some of the neighbors would notice this and warn others to
be on guard? V36 INFORMAL SOCIAL CONTROL 3
2 fc LIKELY (HIISC)
1 3c WSPPffiK UNLIKELY (LOISC)
7 DK/DEPENDS 9 NA
.-V34+V35+V36

PAGE 7
Q37 Next I would like to know how you fee! about conditions on your block and the need for action on them. Tell me which one of these three statements best describes your view at this time:
V37 READINESS FOR CHANGE _____
1 I don't feel any need to take action to change the block. PRECONTEMPLATION
2 3 I am thinking seriously about doing something to change the block. CONTEM
3 $ I am actively doipg something to r.hange thp. hlnrk ——ACTION_____
7 DK 9 NA
The next part of the survey is about problems you may have on your block First, here is a list of problems that some people tell us they have on their blocks. Each time I name one, please tell me if it is a serious problem, a minor problem or no problem at all on your block at this time
I 3*=SERIOUS PROBLEM ^3=MINOR PRQBI.PM l9c=NO PRnmnTI 7=DK 9=NA
38 Q38 People who don't keep up their property.
39 Q39 Poor sanitation services. (EG: TRASH COLLECTION, SEWERS)
40 Q40 Vandalism. (EG: BREAKING WINDOWS, PAINTING ON CARS OR WALLS)
41 Q41 Drug dealing.
42 Q42 Litter.
43 Q43 Problems with parking and traffic control.
i4 Q44 Groups of young people hanging around.
t5 Q45 Robbery or assault of people on the street.
t6 Q46 Burglary of homes when people are away.
(7 Q47 Poor street maintenance. (EG: POTHOLES)
BPROB= V38+V39+V40+V41+V42+V43+V44+V45+V46+V47 PROBCRIM = V40+V41+V44+V45+V46 PROBOTHR = V38+V39+V42
ENCOD= W2+V3+V4+V5+LOPROB

PAGE 8
Q48 Now let me ask some questions about security on your block. First, in the past year, would you say that the amount of street crime on your block has increased, de^Trea^ed orx stayed about the same?,
V48 PERCEPTION OF BLOCK SE?
3 Ic INCREASED
2 ft STAYED THE SAME
1S DECREASED
T 9
DK NA
- f 0T>
Q49 How safe would you feel being out alone on your block during the day -- would you feel very safe, fairly safe or unsafe?
V49 FEELINGS OF SAFETY DURING DAY
1 VERY SAFE 23: FAIRLY SAFE 3 5 UNSAFE
7
9
DK NA
Q50 How safe would you feel being out alone on your block at night --would you feel very safe, fairly safe or unsafe?
V50 FEELING OF SAFETY DURING NIGHT
' \ VERY SAFE
2 3: FAIRLY SAFE
3 5c UNSAFE
7
9
DK
NA
FEARCRIM = V49+V50
I am going to name s5me things that people might do to protect themselves from crime. Each time I name one, please tell me if you have taken that action to protect yourself or your property from crime by saying "yes" or "no".
|2 3t=YES 138FNO 7=DK 9=NA
11 Q51 Started going out less at night.
12 Q52 Put extra locks on doors or windows.
3 Q53 Started leaving lights on when not at home.
4 Q54 Installed outside lighting for security.
5 Q55 Put identification numbers on your property or had the police do it for you.
6 Q56 Had neighbors watch your house while you were out.
7 Q57 Joined a neighborhood or block watch program.
8 Q58 Taken part in a civilian patrol on your block or neighborhood.
GRPACT = V57+V58
INDACT = V52+V53+V54+V56

PAGE 9
Q59 Have you or any member of your household been the victim of a crime in the past three years? 'V59 CRIME TICTIM
[(SKIP TO Q64) 7=DK 9=NA
Q60 What was the crime?
BKbAKING AND LNFbRING (EG: STOLEN CAR)————
2 BUGLARY OR HOUSEBREAKING
3 ROBBERY (INCLUDING PURSE SNATCHING, POCKET PICKING, ETC.)
4 RAPE OR ASSAULT (INCLUDING MURDER)
5 "BUNKO" (INCLUDING CONFIDENCE GAMES, FORGERY, ETC.)
6 VANDALISM
8 OTHER _____
7 DK 9 NA
Q61 Were you the victim or was it some other member of your household?
V61 WHO VICTIM
2 k RESPONDENT
1 S OTHER HOUSEHOLD MEMBER fAT THE TIME OF THE CRIME!
5 SOMEONE OTHER THAN A HOUSEHOLD MEMBER 7 DK 9 NA
Q62 How long ago did this happen?
V62 WHEN CRIME HAPPENED
(SKIP TO Q64)
1 2 3 4 LESS THAN ONE YEAR ONE TO TWO YEARS TWO TO THREE YEARS MORE THAN THREE YEARS
7 9 DK NA
Q63 Did this crime happen on this block, elsewhere in this neighborhood, or at some other place altogether?
V63 WHERE CRIME HAPPENED
1 ON BLOCK
3 IN NEIGHBORHOOD
4 SOMEWHERE ELSE
7 DK————————————
8 NA
Q64 Do you know of anyone living on this block who has had their home broken into in the past year?
V64 KNOW OF HOUSE BEAK 12 iiFYES 13=NO |7=DK 9=NA
Q65 Do you know of anyone who has been assaulted while on the street on this block in the past year? V65 KNOW OF ASSAULT ON BLOCK 1'2 IfYES l3fNO 7=DK 9=NA

SSV = V66+V67+V68+V21

PAGE 10

Q66 Now some questions about other subjects. Some people care a lot about the block they live on; for others the block is not important. How important is what your block is like to you -- would you say that it is not important, somewhat important or very important?

V66 IMPORTANCE OF BLOCK_____

—1 NOT IMPORTANT————————

2 2 SOMEWHAT IMPORTANT

3 5 VERY IMPORTANT_____

7 DK 9 NA

Q67 How important is it to you that people on your block work together rather than alone to improve block conditions -- not important, somewhat important, or very important?

V67 IMPORTANCE OF WORKING TOGETHER

1 NOTIMPORTANT

2 3 SOMEWHAT IMPORTANT

3 £ VERY IMPORTANT

7 DK 9 NA

Q68 How important is it to you that you be actively involved in any

efforts that residents might make to to improve your block? V68 IMPORTANCE OF ACTIVE INVOLVEMENT

1 NOT IMPORTANT

2 2 SOMEWHAT IMPORTANT

3 -£> VERY IMPORTANT

7 DK 9 NA

Q69 Now I have some questions about community organizations.

Is there currently a block association on your block? V69 CURRENT BLOCK ASSOCIAT iDN

2 33 YES 1 2 NO (SKIP TO YELLOW SHEETS)

7 DK 9 NA

Q70 Do you think the work of the block association has made the block a

better place to live, made things worse or had no effect? V70 BLOCK ASSOCIATION IMPROVED'BLOCK?

3 BETTER 25 NO EFFECT 1 WORSE

TDK 9 NA

PAGE 11

Q71 Would you say that this block association is very active, moderately active or largely inactive?

V71 ACTIVITY LEVEL OF BLOCK ASSOCIATION

1 LARGELY INACTIVE

2 « MODERATELY ACTIVE

3 3<VERY ACTIVE

7 DK 9 NA

Q72 Do you feel that this is an open organization where anyone can

take part or is it run by a small group of people? V72 OPENNESS OF BLOCK ASSOCIATION

3 OPEN

23 DEPENDS/EQUIVOCAL
.1 SMALL GROUP_____
7 DK 9 NA
I am going to read a short list of things a block association might try to do. Each time I read one, please tell me if you think it is very likely, somewhat likely or not likely that the association on your block can accomplish that goal. PAUSE
3*eVERY LIKELY2 S=SOMEWHAT LIKELY 1S=NOT LIKELY 7=DK 9=NA
73 Q73 Improve physical conditions on the block like cleanliness or housing upkeep.
74 Q74 Persuade the City to provide better services to people on the block
75 Q75 Get people on the block to help each other more.
76 Q76 Reduce crime on the block.
11 Q77 Get people who live on the block to know each other better.
1Q Q78 Get information to residents about where to go for the services they need
y9 Q79 Provide programs for young people on the block.
I EXPEC = V73+V74+V75+V76+V77+V78+V79 |*
Q80 Have you ever taken part in an activity sponsored by the block association? (EXPLANATION: Like a clean-up effort, a block party or a meeting to talk about block problems.)
10 PARTICIPATION IN BLOCK ASSOCIATION ACTIVITY
2* YES
18 NO
7 DK
9 NA
*Note: V115-V121, were transferred to V73-V79 respectively so that we could compare residents on blocks with BA's against residents on blocks without B^'s. Separation for other purposes easily accomplished with select if, statement

PAGE 12
Q81 Are you currently a member of the block association? V81 BLOCK ASSOCIAtlDN MEMBER- CURRENTLY
2 1 * 3 YES NO (SKIP TO Q101 ON NEXT PAGE)
7 9 DK NA
Q82 Have you ever been a member of the block association? V82 BLOCK ASSOCIATION MEMBER - PAST
I 2 teYES 1»NO I 7=DK 9=NA
Q83 What is the main reason that you stopped being a member of the block association? V8i3 REASON NO LONGER MEMBER __
1 NOT ENOUGH TIME
2 PERSONAL SITUATION (JOB, HANDICAP, CHILDREN, ETC.)
3 ASSOCIATION NOT EFFECTIVE
4 CONFLICT WITH OTHER MEMBERS/LEADERS
5 SAW NO NEED FOR ACTION
6 DIDN'T FEEL PART OF GROUP/NOT WELCOME

7 DISAGREED WITH POLICIES
8 OTHER ____ _____
9 DK/NA
Q84 Is any other member of your household a member of the block association? V84 OTHER HOUSEHOLD BA MEMBER
2 teYES 1£=NO | 7=DK 9=NA
I am going to read a list of things that might keep people from being members of a block organization. Each time I read one, please tell me if it is one of the things that has kept you from being a member of the association on your block or not. PAUSE
2 fc=YES
7=DK 9=NA
5 Q85 Having children or others to care for so that it is difficult to attend meeting:
5 Q86 Not having the free time it takes to be a member.
7 Q87 Not wanting to go to meetings and activities at night.
} Q88 Having to give up activities with friends or family to be a member.
) Q89 Disliking other members of the organization.
) Q90 Not feeling welcome or like part of the group in the organization.
Q91 Disagreeing with the goals or activities of the association. ; Q92 Feeling that the organization never gets anything accomplished.
Q93 Seeing no rfeed for an organization on this block.
TOTOBST = V85+V86+V87+V88+V89+V90+V91+V92+V93 COSFAC1 = V89+V90+V91+V92+V93 COSFAC2 = V85+V86+V87+V88

PAGE 13
People join organizations for different reasons. Please tell me if each of the following rewards would be a good enough reason for you to join a block association and volunteer at least two hours a month to its work.
7=DK 9=NA
/94 Q94 Saving money on the cost of such things as food or home improvement supplies. '
J95 Q95 Getting information about community events or services.
^96 Q96 Making new friends or meeting new people.
'S7 Q97 Gaining personal recognition and respect from others.
'98 Q98 Helping others who are in need.
'99 Q99 Making the block a better place to live.
100Q100 Increased contact with people who may be helpful to you personally._____
Note: V129-V135 were tram to V94-V100 respectively ! we could compare incentivi
(SKIP TO Q136 ON PAGE 17)
TOTINCTA = V94+V95+V96+V97+V98+V99
non-members cm blocks wii __ versus incentives for re;
Q101 How long have you been a member of the association? on blocks w/or BA's. VIOL HOW LONG MEMBER
1 LESS THAN SIX MONTHS
2 SIX MONTHS TO ONE YEAR

3 BETWEEN ONE AND TWO YEARS
4 BETWEEN TWO AND THREE YR
5 OVER THREE YR
7 DK
9 NA
We would like to know what kinds of things people have done in the association. In the past year have you:
2 d-FYES 1 £f=
4=DK 5=NA
32 Q102 attended a meeting,
)3 Q103 spoken up during a meeting,
)4 Q104 done work for the organization outside of meetings,
)5 Q105 served as a member of a committee,
)6 Q106 served as an officer or as a committee chair?
MEMBER - YES TO V81 AND YES TO V102 (MINIMUM ATTENDED MEETING) NONMEMBER = EITHER NO TO V8J gg yg§ TO y§jL ^D JTO TO V102_____

PAGE 14
Q107 Thinking about work you might do for the block association outside of meetings, how many hours would you say you give to the association each month, if any?
Vl*07 TIME WORKING FOR BA MONTHLY
U NONE
1-7 EXACT HOURS GIVEN
8 8 OR MORE_____
9 DK/NA
Now let me ask you to tell me if each of a set of statements describe you or not. Each time I read one of the statements, please tell me if
it describes vou verv well, fairlv well, or nnt at all
_VQ_ ILL
LOW SKILL MOD SKILL WTr-w CVTTT
1='
PAUSE
7=DK 9=NA
108 Q108 I do not feel any responsibility to take part in efforts to improve the block.
109 Q109 I would find it hard to talk in front of a meeting of the block association.
.10 QUO I could get other people in the block association to follow my ideas.
11 Q111 I would have difficulty organizing other people to get things done in the block association.
12 Q112 I could be an officer or a committee chair in the block association.
13 Q113 I know of other organizations that I could get to help the block . association get things done.
14 Q114 I would need to see quick results from my .work in the block association to stay involved.
(SKIP TO Q136)

*Note: Appropriate reversals of V108-V114 were done to result in this coding form; being correct for each item (e.g. V110, V112 and V113 were reversed)

SKILL =V109+V11CH-V111+V112+V113 SELFREG =V108+V114 _____

Note: V122=V128 were transferred to V108-V114 respectively so that we could compare skills for residents on blocks with BA's against those on blocks without BA's._____

PAGE 15

Let me ask you to think about what a block association could and could not do for your block if one was formed here. I am going to read a short list of things a block association might try to do. Each time I read one, please tell me if you think it is very likely, somewhat likely or not likely that a block association could accomplish that goal for your block. PAUSE

LI-KELY 23=SQMEWHAT LIKELYl Sc=NOT LIKELY

7=DK 9=NA

Q115 Improve physical conditions on the block like cleanliness or housing upkeep.

Qll6 Persuade the City to provide better services to people on the block

Q117 Get people on the block to help each other more.

Q118 Reduce crime on the block.

Q119 Get people who live on the block to know each other better.

Q120 Get information to residents about where to go for the services they need.

Q121 Provide programs for young people on the block.

Note; V115-V121 transferred to V73-V79 respectively.

Now let me ask you to think about what it would be like if there was a block association on this block and tell me if each of a set of statements jescribes you very well, fairly well, or not at all. PAUSE

7=DK 9=NA

Q122 I do not feel any responsibility to take part in efforts to improve the block.

Q123 I would find it hard to talk in front of a block association meeting. Q124 I could get other people in a block association to follow my ideas.

Q125 I would have difficulty organizing other people to get things done in a block association.

Q126 I could be an officer or committee chair in a block association.

Q127 I know of other organizations that I could get to help a block association get things done.

Q128 I would need to see quick results from my work in a block association to stay involved.

Note: Appropriate reversals of V122-V128 were done to result in this coding forma being correct for each item (eg., V124, V126, V127 were reversed).

[~Note: V121-V128 were transferred to V108-V114)

PAGE 16
People join organizations for different reasons. Please tell me if each
of the following rewards would be a good enough reason for you to join a
block association and volunteer at least two hours a month to its work.
2 3=
7=DK 9=NA
L29 Q129 Saving money on the cost of such things as food or home improvement supplies.
L30 Q130 Getting information about community events or services.
L31 Q131 Making new friends or meeting new people.
L32 Q132 Gaining personal recognition and respect from others.
.33 Q133 Helping others who are in need.
.34 Q134 Making the block a better place to live.
.35 Q135 Increased contact with people who may be helpful to you personally.
Note; V129-V135 were transferred to V94-V100 respectively.
TOTINCTB = V129+V130+V131+V132+V133+V134 PERINCTB = V129+V130 SOCINCTB =
V131+V132 BLKINCTB = V133+V134

PAGE 17
Q136 Are you a member of any organizations other than a block association that are concerned with solving community problems, like a neighborhood association, civic club or tenants group?
V136 MEMBER OTHER COMMUNITY ORGANIZATIONS
2 ;3=
1 8=NO (SKIP TO Q139)
9=NA
Q137 To'how many of these organizations do you belong? V137 NUMBER OF COMM ORGS MEMBER
1-7 EXACT NUMBER GIVEN 8 8 OR MORE
9 DK/NA
Q138 Overall, would you say that you were very active, only occasionally active or seldom active in these organizations? V138 ACTIVITY LEVEL IN OTHER COMM ORGS
1 SELDOM ACTIVE
2 S OCCCASIONALLY ACTIVE
3 £ VERY ACTIVE
TDK 9 NA
| OTHORPAR - V137xV138 |
Q139 For the last part of the survey I need to ask a few background questions. Do you own your home or are you renting? V139 HOME OWNERSHIP
1 OWN RENT
7 DK
9 NA
>-Q140 Is your home in a private house or an appartment building? V140 TYPE OF RENTAL UNIT
I 23=PRIVATE HOME 1:2=APPARTMENT BUILDING
7=DK 9=NA
•Q141 Is your home a private house, a coop or a condominium?
V141 TYPE OF OWNED UNIT _____
| 1 = PRIVATE HOME 3=COOP 5=CONDO 8=OTHER l7=DK 9=NA
Q142 How many children between the ages of 5 and 18 currently live in your V142 °NUMBER OF CHILDREN
1-7 EXACT NUMBER GIVEN
8 8 OR MORE_____
9 DK/NA

PAGE 18
Q143 Which of the following categories includes your age? V143 AGE CATEGORY
1 under thirty years old
2 thirty to thirty nine years old
3 forty to forty nine years old
4 fifty to sixty five years old
5 over sixty fivp ysars nIH_____
9 NA
Q144 What was the highest level of education you completed? V144 EDUCATIONAL LEVEL
1 EIGHTH GRADE OR LESS
2 SOME HIGH SCHOOL
3 HIGH SCHOOL GRADUATE
4 VOCATIONAL SCHO6L BEYOND HIGH SCHOOL
5 SOME COLLEGE
6 COLLEGE GRADUATE
7 POST GRADUATE EDUCATION_____ 9 NA
Q145 Which of the following categories describes your race? V145 RACE
1 Black
2 Hispanic
3 White
4 Oriental 8 Other
9 NA
Q146 Thinking about your total family income in 1984, which of the following categories did it fall into? V146 FAMILY INCOME
1 under $10,000
2 from $10,000 to $20,000
3 from $20,000 to $30,000
4 $30,000 or more. 5 . B£ OVER $40,000___
DK
9 NA
This concludes the interview. Do you have any questions?
Thank you very much for your cooperation.
Q147 RECORD RESPONDENT'S SEX
V147 SEX
TMALE
2 S FEMALE 9 NA

APPENDIX 1A:
FACTOR ANALYSES OF INDIVIDUAL-LEVEL SOCIAL CLIMATE SURVEY ITEMS [a]

Table 1A1: Sense of Community, Informal Social Control, and Neighboring

Varimax Rotated Factors:	1	2	3	4	5	6	7
NEIGHBORING (alpha = .76) Did you...							
Q25. Help a neighbor in emergency	.72						
Q27. Discuss problem w/ a neighbor	.69						
Q24. Loan a neighbor food or tool	.69						
Q23. Watch a neighbor's house	.67						
Q26. Offer a neighbor advice	.64						
Did a neighbor...							
Q30. Help you in an emergency		.70					
Q29. Loan you food or a tool		.69					
Q31. Offer you advice		.68					
Q32. Discuss a block problem		.59					
Q28. Watch your house		.49		.33			
SENSE OF COMMUNITY (alpha = .80)							
Q12. few of my neighbors know me			.67				
Q10. I can recognize most people			.59	.31			
Q14. I have almost no influence			.52				
Q15. people can get problems solved			.46		.39		
Q16. important to live on this block				.74			
Q18. I expect to live here a long time				.71			
Q9. neighbors want the same things				.38			
Q7. block is a good place to live				.31		.69	
Q8. people do not share values						.69	
Q11. I feel at home on this block						.59	
Q13. I care what my neighbors think							.64
Q17. people don't get along							.64
INFORMAL SOCIAL CONTROL (alpha = .59)							
Q34. would a neighbor ask for clean up					.66		
Q35. would a neighbor ask kids to stop					.69		
Q36. would a neighbor warn others			.32		.63		
ADDITIONAL ITEM:							
Q19. People recognize block residents			.57		.32		

[a] Loadings less than .30 left blank by convention.

Table 1A2: Sense of Community, Block Satisfaction and Communitarianism[a]

Varimax Rotated Factors:	1	2	3
SENSE OF COMMUNITY (alpha = .80)			
Q12. few of my neighbors know me	.62		
Q10. I can recognize most people	.54		
Q15. people can get problems solved	.45	.33	
Q14. I have almost no influence	.43		
Q11. I feel at home on this block	.40	.38	
Q16. important to live on this block	.36	.31	
Q8. residents do not share values	.36		
Q17. residents don't get along			
Q7. block is a good place to live		.63	
Q18. I expect to live here a long time	.34	.37	
Q9. neighbors want the same things			
Q13. I care what my neighbors think	.30	.32	
BLOCK SATISFACTION (alpha = .59)			
Q2. satisfied with block as place to live		.67	
Q4. block conditions have improved		.64	
Q5. block conditions will improve		.61	
Q3. block better place to live than others		.43	
COMMUNITARIANISM (alpha = .68)			
Q68. How important to be involved			.80
Q67. How important people work together			.78
Q66. How important what block is like			.65
Q21. How important sense of community			.54
ADDITIONAL ITEMS:			
Q6. Neighbors watch after each other	.59		
Q19. People recognize block residents	.43		
Q20. Sense of community w/ block residents	.52		.31

[a] 3 factors were forced for confirmatory purposes.

Table 1A3: Block-focused Cognitive Social Learning Variables

Varimax Rotated Factors:	1	2	3	4	5
PERCEIVED BLOCK ASSOC. EFFICACY (alpha=.82)					
(If block association formed) how likely is it that it could:					
Q75. Get people to help each other more	.74				
Q77. Get people to know each other better	.72				
Q78. Get services information to residents	.68				
Q76. Reduce crime on the block	.67				
Q74. Get city to provide better services	.67				
Q73. Improve physical conditions	.66				
Q79. Provide programs for young people	.57				
COMMUNITARIANISM (alpha = .68)					
Q67. How important people work together		.80			
Q68. How important to be involved		.79			
Q66. How important what block is like		.68			
Q21. How important sense of community		.60			
SKILLS (alpha = .65)					
Q113. Know other orgs. to help B.A.			.74		
Q112. Could be an officer/committee chair			.73		
Q110. Could get others to follow my ideas			.66		
BLOCK SATISFACTION (alpha = .59)					
Q4. block conditions have improved				.73	
Q5. block conditions will improve				.63	
Q2. satisfied with block as place to live				.59	
Q3. block better place to live than others				.50	
ADDED AS PART OF ENCODING SCALE:					
Block Problems Scale (see Table 2D)				-.44	
SELF-REGULATING SYSTEMS (alpha = .54)					
Q114. Need to see quick results					.69
Q108. Feel responsibility to take part					.68
Q111. Can organize others					.60
Q109. Can talk in front of a meeting			.33		.59
ADDITIONAL ITEM:					
Q20. Sense of community w/ block residents		.34		.30	

Table 1A4: Fear and Perception of Block Problems

Varimax Rotated Factors :	1	2	3
PERCEIVED INCIVILITIES (alpha = .65)			
Q42. Litter	.74		
Q39. Poor sanitation services	.68		
Q38. People who don't keep up property	.65		
CRIME/DELINQUENCY PROBLEMS (alpha =.78)			
Q45. Robbery or assault on the street		.74	
Q46. Burglary of homes		.73	
Q40. Vandalism	.44	.56	
Q44. Young people hanging around	.39	.52	
Q41. Drug dealing	.49	.43	
OTHER PROBLEMS			
Q43. Parking and traffic control	.38		
Q47. Poor street maintenance	.52		
FEAR OF CRIME (alpha = .62)			
Q49. How safe alone on block during day			.81
Q50. How safe alone on block at night			.77
ADDITIONAL ITEM:			
Q48. Perceived increased risk	.53		

Table 1A5: Perception of Block Problems Only

Varimax Rotated Factors:	1	2
CRIME/DELINQUENCY PROBLEMS (alpha =.78)		
Q45. Robbery or assault on the street	.81	
Q46. Burglary of homes	.75	
Q44. Young people hanging around	.63	
Q40. Vandalism	.63	.37
Q41. Drug dealing	.59	.37
PERCEIVED INCIVILITIES (alpha = .65)		
Q39. Poor sanitation services		.73
Q38. People who don't keep up property		.72
Q42. Litter		.70
OTHER PROBLEMS		
Q43. Parking and traffic control		.48
Q47. Poor street maintenance		.43

APPENDIX 2: BLOCK BOOSTER ENVIRONMENTAL INVENTORY

by Douglas D. Perkins, New York University and Citizens Committee for N.Y.C.

INSTRUCTIONS

Before going to a block to do an environmental assessment, be sure that someone from the research team (who is not to be kept blind to experimental-control block assignments) has notified the local police precinct and, where appropriate, the block leader. Check the designated boundaries of the block (some "blocks" will be a string of two or more adjacent physical blocks). The block includes both sides of the street and the properties on all adjacent corners. First, start at the corner with the lowest address and walk one side of the block at a time keeping a tally of the items in section I that are visible from the sidewalk. Use the dotted area for the tally and the right-hand lines for the exact total. At the bottom of this section, make a note of every nonresidential land use on the block and classify them-- e.g., industrial, commercial, educational, religious, etc. It is especially important to note "eyesores," such as vacant lots with abandoned cars. Use the back of the page for any comments or questions you might have and note the category number, letter and, where appropriate, address it refers to.

I.A.1. An unpaved shoulder or a side lane with parked cars is not considered "drivable" and thus is not counted in terms of street width.

2. A "divider" is any raised median separating traffic.

3.. Check for "no parking" signs.

I.B.1. "Attached" buildings are any that are so close that it is impossible to walk between them. The end buildings in an attached row should be counted as attached.

2. "Detached" buildings may be architecturally adjoined (e.g., by an arch) as long there is at least a pedestrian alley between them. Count any duplexes (i.e., attached on only one side) as "detached."

3-5. For every different style of building on every block, the number of units (1, 2-3, or 4+) should be verified by counting door bells or mail boxes. This need not be done for identical buildings on the same block.

I.C.1. Count a car as abandoned if it has broken windows, dismantled parts, has been in a wreck, or has one or more flat tires.

2. Damaged or graffiti painted public property would include signs, lights, trees, etc. Count each separate piece of affected public property only once (i.e., do not count a sign separately from its post). Count graffiti only if it is clearly a name, design, or a mark at least 1 foot across.

3. An "unboarded abandoned building" is not only vacant, but is dilapidated, has overgrown grass, weeds or shrubbery, or several broken windows.

4. "Boarded abandoned buildings" need not look dilapidated.

5. Count all vacant lots as "unused" that do not contain a (6) garden, (7) playground, or parking lot, etc.

8. Do not count corner street signs as block or block watch "identifiers" (rather, they will typically read "Welcome to.....block" or "This block protected by.....").

BBEI Instructions (continued):

I.D.1. If you see that 4 or more properties have the same style sidewalk lamps, benches, address signs, or planters, etc., circle the appropriate word and (2) count them.

II.Start over at the beginning of the block, walk down one side of the street at a time and check yes or no for whether each item in this section is visible at every third property (e.g., address #00, #06, #12...). Stop when you have completed part II on 12 properties. If you finish the block and have not assessed at least 12 properties (and have made sure that the "block" has not been designated as a multiple block), start over and do the second (#02), fifth (#08), and eighth (#14) properties, etc., until you have completed 12. On "multiple blocks," divide the 12 properties to be assessed proportionately among the component physical blocks according to the relative size of those blocks (e.g., if the multiple block consists of one long block and one that is approximately half as long, do 8 properties on the long block and 4 on the short one.

II.1.Imagine if all street, sidewalk, and yard litter (including overflow from trash cans) were swept up; would the pile be substantially more than 1 foot?
2. "Vandalism" includes broken windows, exterior lights, etc.
4. Check "no" if most of sidewalk is obstructed from view from 1st floor.
5-6. A "barrier" is a wall, fence, or hedge of any sort.
8. Include lights on either side of the street or on property line.
10. A badly overgrown lawn, untrimmed hedge, peeling paint, etc. should be considered "lack of exterior maintenance."
14. A "stoop" should be included if the steps or low wall are at a comfortable height for sitting (2-3 feet).
15. "Personalization signs" include family or commercial names, initials, emblems, fancy address signs, etc. Look for these on doors, lampposts, windows, and gates.
16."Inividualized" decorations include any statuettes, planters, window boxes, awnings, etc., that were not counted in part I-D. Do not include plants inside windows.
19-20. Look at doors and windows for security or alarm and "Operation I.D.," patrol, or "block watch" signs or stickers. If "yes," circle the appropriate word.

Note: for the sake of inter-rater reliability, it would be best always to Use a pair of raters on study blocks. A scarcity of available personnel prevented such a procedure in the present study. This is not a great concern, however, because the level of interrater agreement appears to be one of the strongest features of this and the subsequent iterations of the instrument (c.f., Perkins, Meeks & Taylor, 1989). The Block Booster Environmental Inventory, used in the present study, has undergone further conceptual and psychometric development. A copy of the latest version of the revised "Block Environmental Inventory" is available from the author.)

BLOCK BOOSTER ENVIRONMENTAL INVENTORY Rater:_____ Block #_____

I. A. Street width: 1. How many lanes are drivable?....._____
2. Is there a divider?....._____
3. On how many sides of the street is parking allowed?....._____

I. B. Housing style (write exact #): 1. How many buildings are attached? _____
2. How many are detached?....._____
3. How many one-family houses?....._____
4. How many two or three unit buildings?....._____
5. How many multi-unit (4+) buildings?....._____

I. C. How many of the following can you identify on the whole block?
1. Abandoned cars on street....._____
2. Damage or graffiti on public property....._____
3. Unboarded abandoned buildings....._____
4. Boarded abandoned buildings....._____
5. Unused vacant lots....._____
6. Public gardens....._____
7. Public playgrounds....._____
8. Signs identifying the block or "block watch"....._____

I. D. 1. Any identical lamps, signs, planters, benches, other (circle)?
2. How many (at least 4)?_____

I. E. List and describe (on reverse) all nonresidential land uses:___ _____

II. Property checklist: Evaluate every 3rd building or vacant lot (stopping at a total of 12 properties assessed).

Address:_____	Yes	No
1. More than 1 sq. ft. of litter on or in front of property?	____	____
2. Vandalism on property?.....	____	____
3. Graffiti on property (do not include posted materials)?..	____	____
4. Are street and sidewalk clearly visible from inside the building (or, if vacant lot, is whole lot visible from street)?...	____	____
5. Does the property have a barrier on it?.....	____	____
6. Does the property have a barrier around it?.....	____	____
7. Is there a gate?.....	____	____
8. Is there a street light in front of the property?.....	____	____
9. Do any windows have security bars or gates on them?.....	____	____
10. Any visible lack of exterior maintenance?.....	____	____
11. Does the building appear to be occupied?.....	____	____
12. Any sign of a dog (include dog house, "beware" sign,...)?	____	____
13. Does the property have its own outdoor lighting?.....	____	____
14. Anyplace to sit outside (bench, porch swing, stoop)?.....	____	____
15. Any personalization signs?.....	____	____
16. Individualized house, yard or window decorations?.....	____	____
17. Trees, shrubs, or garden on private lot?.....	____	____
18. Trees, shrubs, or garden on the "right of way?".....	____	____
19. Any security or alarm identifiers on the property?.....	____	____
20. Any "operation I.D., block watch," or patrol identifiers?	____	____

[Repeat Part II for up to 12 properties on each block]

APPENDIX 3: CRIME DATA CODE SHEET AND NYPD COMPLAINT INDEX FORM

APPENDIX 3
CRIME DATA CODES FOR COMPUTER

CRIME CODES

01 Burglary
02 Robbery
03 Assault
04 Harassment
05 Grand Larceny
06 Grand Larceny Auto
07 Petit Larceny
08 Criminal Mischief
09 Personal Injury
10 Leaving Scene of Accident
11 Criminal Possession of Stolen Prop.
12 Criminal Possession of Weapon
13 Unlawful Imprisonment
14 Aggravated Harassment
15 Reckless Endangerment
16 Investigate Auto (abandoned car)
17 Resisting Arrest
18 Petit Larceny from Auto
19 Grand Larceny from Auto
20 Missing Person
21 Menacing
22 Suicide
23 Breaking and Entering
24 Child Abuse
25 Custodial Interference
26 Armed Robbery
27 Rape/Sexual Abuse
28 Suspicious Fire
29 Criminal Possession of Controlled Substance
30 Kidnapping
31 Unauthorized Use of Motor Vehicle
32 Criminal Trespassing

DEGREE CODES

1 First Degree
2 Second Degree
3 Third Degree
4 Attempted/Investigated
5 Non-Crime
6 Recovered/Arrest
9 Empty (missing data)

COMPLAINANT CODES

1 Block Resident
2 Non-Resident
3 PSNY
4 Other

LOCATION CODES

1 public outdoor (eg. street, corner, alley, etc.)
2 private outdoor (eg. driveway, yard, parking lot, etc.)
3 private residence (eg. indoor: apartment, house, garage, residence, basement, etc.)
4 public/business indoor (eg. gas station, store, bar, public garage, etc.)
9 empty (missing data)

CODER

1 Doug
2 Ira
3 Anne

ENTRY

1 Corinne
2 Marisa

"60" Form (from NYPD Crime Analysts Unit) 1202, 1 Police Plaza, NYC 10038

COMPLAINT INDEX
PD 313-141 (Rev. 1-85)

List chronologically all complaints received for this date. Forward to units indicated at bottom of each copy.

LAST COMPLAINT NUMBER FROM PREVIOUS SHEET	PREC.NCT	DATE OF REPORT

TIME	COMPLAINT NO	AGE OF VICTIM	COMPLAINANT'S NAME/ADDRESS	PLACE OF OCCURRENCE/TYPE PREMISES* (INCLUDE BETWEEN STREETS OR AVENUES)	OFFENSE REPORTED/AND AIDED/ACC NO. IF ANY†	HOME TELEPHONE	☐ ACTIVE ☐ CLOSED
REFERRED TO UNIT	OFFICER					BUSINESS TELEPHONE	ALARM NO
							☐ ACTIVE ☐ CLOSED
							☐ ACTIVE ☐ CLOSED
							☐ ACTIVE ☐ CLOSED
							☐ ACTIVE ☐ CLOSED
							☐ ACTIVE ☐ CLOSED
							☐ ACTIVE ☐ CLOSED
							☐ ACTIVE ☐ CLOSED

*Include specific type premises or person, i.e., taxi, grocery, apartment, pedestrian, etc
†Include: Robbery—Purse, Grand Larceny—Purse, etc

SHEET _____ of _____ SHEETS forwarded this date

RANK/SIGNATURE OF FORWARDING SUPERVISOR

1-CRIMINAL RECORDS SECTION