

THE CHANGING SPATIAL DIMENSION OF BLACK HOMICIDE IN SELECTED AMERICAN CITIES

HAROLD M. ROSE

*Departments of Urban Affairs and Geography
University of Wisconsin—Milwaukee*

ABSTRACT

Black homicide is a topic that has received only limited attention, in general, but even less in terms of its spatial implications. This investigation, however, basically attempts to identify high homicide risk environments in a set of cities where the aggregate risk is known to be high. Both methods of evaluating risk and the spatial patterns of risk stability are the central focus of the study.

INTRODUCTION

Homicide as a cause of death has been growing in importance in the United States since the mid-sixties. Attempts to explain the sudden rise in the annual toll of homicide deaths vary from those who attribute them to cyclical behavior [1], handgun availability [2], demographic structure of the population [3], and a lower attachment to traditional values [4]. Most homicide studies, however, devote only limited attention to the spatial context of homicide victimization patterns, and even when attention is given this aspect of homicidal behavior, the analysis is conducted at the macro-scale. Such are the studies which highlight regional differences in the propensity to engage in homicidal behavior [5], as well as studies which attribute the differential propensity to differences in size of place. But seldom are spatial differences within places examined. Both Pyle [6] and Harries [7] have, however, conducted assessments of intra-urban variations in spatial patterns of criminal behavior, but homicide was not the

central focus of their investigation. This paper will attempt to begin to partially fill the void associated with the general absence of urban microscale analysis of homicide behavior.

The absence of microspatial analysis of homicide behavior is basically related to the disciplinary orientation of most homicide studies and to the lack of ease in acquiring appropriate data at the neighborhood scale. Since most social science assessments of homicide behavior are likely to be undertaken by researchers representing sociology and psychology, the lack of attention to microscale patterns of homicide behavior is understandable. The slowness of geographers to develop an interest in this previously off-limits subject matter area has further retarded interest in microspatial patterns of homicide behavior. Even though disciplinary orientations have hampered this aspect of problem assessment, the lack of a universal data base upon which comparative studies might be conducted has further aggravated efforts designed to overcome our lack of understanding of this phenomenon.

This paper will only address itself to a single aspect of the problem and will employ a small number of places as comparative references. The emphasis here will be devoted to the microspatial pattern of black victimization in a three city sample. Patterns of black victimization were chosen because they represent the modal victims in large central cities, and it is in these environments that much of the increase in the current homicide epidemic has occurred. Likewise, homicide constitutes a primary cause of death in the black population and had attained the role of the ranking killer of young black males early in the decade [8]. Although a spatial assessment of this phenomenon is unlikely to provide an explanation of increased causation, it should provide some clues to the changing role of both external and internal factors on the magnitude of homicide death, as well as assist in identifying the location of high homicide risk environments within urban space.

ENVIRONMENTS OF DIFFERENTIAL RISK

The question of environmental risk is not well understood, but both white and black persons are known to be sensitive regarding the perceived safety of specific zones within cities. This point was recently illustrated by Kasl and Harburg [9, pp. 320-323]. They indicated that both black and white residents in a sample of Detroit high stress neighborhoods were inclined to wish to move, but that black residents in high stress neighborhoods expressed a more intense dislike of the neighborhood than was true of their white counterparts. Microscale variations in the strength of push factors on neighborhood mobility are seldom available, but the aggregate responses of a sample of persons, based on the Annual Housing Survey, show that fear of crime at the neighborhood scale is

an important contributor to neighborhood dissatisfaction. Spatial aspects of homicide risk, however, are not easily derived on a continuous basis. It is possible to specify the homicide rate at the neighborhood scale during census years, but in the interval between censuses one is only able to rely on microscale population projections if risk is to be formally deduced demographically. It is apparent that some surrogate measure of risk, other than that which is traditionally employed, is necessary if one is interested in specifying risk during an intercensal period.

During the period 1965 to 1973, the increase in the number of black homicide victims increased sharply, and in the latter year black victims constituted more than one-half of all homicide victims nationally. During that same interval there was a 46 per cent increase in the risk of black victimization as the homicide rate climbed from 30 per 100,000 to 44 per 100,000. Homicide as cause of death grew in importance in the general population, and the rate of increase among the white population exceeded that among blacks. But the gap in the absolute risk between the races remained high. Blacks are eight times as likely as whites to be victims of violent acts leading to death. The problem becomes even more severe when size of place is taken into consideration.

Large central cities constitute the most violence-prone places in the United States, and it is in those environments that most blacks reside. Klebba indicates males other than white were victimized at a rate of 85.4 per 100,000 in these environments in 1970 [10, p. 203], while females of the same race were characterized by a rate of 15.4 per 100,000. It becomes readily apparent that homicide is basically a male phenomenon as black males tend to be five times as likely as black females to succumb to this cause of death [11, p. 402]. For a variety of reasons, many not fully understood, young black males in large urban environments have increasingly been found to engage in behavior that has accelerated the increase in violent victimizations. Some writers contend that once the peak age of that cohort whose propensity for violence has passed, a decline in homicide rates should be observed.

A Proposal for Evaluating Spatial Patterns of Risk

The territorial black community is the site of most homicide victimizations in large urban environments. Yet within those communities there is much variation in risk of victimization. But before one proceeds to discuss the differential risk within the black community, one must come to grips with the thorny issue of how risk is to be evaluated. It is possible to approach risk of victimization from the perspective of place of occurrence of the homicidal act; place of offender residence; or place of victim residence. Each has its advantages and disadvantages, and optimally one might wish to integrate all three in attempting to derive high risk homicide environments. But if forced to choose between the

three, given an interest in defining risk at the neighborhood level, the decision would be to choose place of victim residence.

Place of victim residence was chosen in favor of the other two choices on the grounds of data completeness and the possibility of linking place of residence to a greater variety of possible causal factors. Yet this measure is clearly beset by a number of weaknesses. Place of occurrence, however, is even a more precarious measure on which to base risk. Regarding the final measure, offender place of residence, data incompleteness is a major drawback, as well as the lack of uniformity in reporting this information by official reporting agencies. Needless to say, in order to fully comprehend risk, at least from a subjective perspective, all three variables are central. But when confronted with the need to choose between them, one leans in the direction of place of victim residence. It is the latter measure that is employed to record all death rates, by cause of death, within urban areas. Thus, one readily acknowledges the shortcomings associated with this measure, but at the same time it is believed that it is superior to the other two in aiding in understanding the unfolding spatial pattern of homicide in large urban environments.

The choice of an appropriate measure of risk, however, is just one aspect of the problem. As indicated earlier, if one is interested in a temporal-spatial sequence, the lack of intercensal data makes the derivation of homicide rates at the microscale all but impossible. The problem associated with the absence of critical information makes it necessary at the neighborhood scale to substitute frequency data for the probability of dying. An attempt has been made to establish a frequency threshold that is congruent with a critical level of risk. In 1970, the risk of homicide victimization in the nation's larger black communities hovered around 50 per 100,000. If it is assumed that census tract populations average around 5,000 persons, then three homicide victims per tract would exceed the mean level of risk. Three homicides per tract, based on victim residence, has been chosen as threshold level separating high and low risk homicide neighborhoods within the black community. One must, however, be careful when employing this surrogate to be able to identify neighborhoods whose population size varies significantly from the mean.

A frequency scale provides us with an opportunity to measure the changing intensity of victimization as well as the spread of the critical threshold. A five item victimization of frequency scale was derived to illustrate level of risk. The scale employed specifies the number of homicides at the neighborhood level during a given time period as indicator of the risk of resident victimization. Neighborhoods with fewer than three homicides during the year were identified as low risk neighborhoods. The scale developed for this purpose is illustrated in Table 1.

A simple scale of this type allows for the establishment of a bookkeeping system that might be employed to monitor changes in the environmental pattern

Table 1.

<i>Risk Level</i>	<i>Homicide Frequency</i>	<i>Expected Rate</i>
Low Risk	Less than 3	Less than 50 per 100,000
Moderate Risk	3-4	50-90 per 100,000
High Risk	5-6	100-139 per 100,000
Extremely High Risk	7-8	140-179 per 100,000
Epidemic Risk	Greater than 9	Greater than 180 per 100,000

of risk. It is possible, however, to compare risk based on crude rates and frequency counts during the census year. Some discrepancy should be expected on the basis of deviations of census tract populations from the mean (see Figure 1). A general understanding of population shifts taking place within the black community during the intercensal period should allow us to provide a meaningful explanation of changes in the spatial pattern of victimization based on the bookkeeping system established for this purpose. Thus, changes in the internal distribution of population coupled with those forces responsible for annual changes in total homicide frequency will influence shifts in the spatial pattern of homicide risk.

The Three City Sample

In order to illustrate the changing patterns of spatial risk, data from three cities will be employed. The cities chosen to highlight this pattern were Atlanta, Detroit, and St. Louis. Each of these places had large black communities in 1970 and each represented places where the risk of homicide victimization was known to be high. (See Boudouris [12], Herjanic and Meyer [13], and Munford and others [14].) These were also, according to Cook [15], high gun density cities. Although these places possessed numerous similarities, they also possessed a number of notable differences that might well have an impact upon the annual frequency of homicides and the prevailing spatial pattern of victimization. Chief among these differences are rates of black population growth, character of the economy, and regional location.

Only a brief comment will be provided as a means of addressing these differences. Both Atlanta and Detroit represented poles of black population growth during the sixties. Migration was a significant element in the growth of both, but was more important in Detroit than in Atlanta. The black population

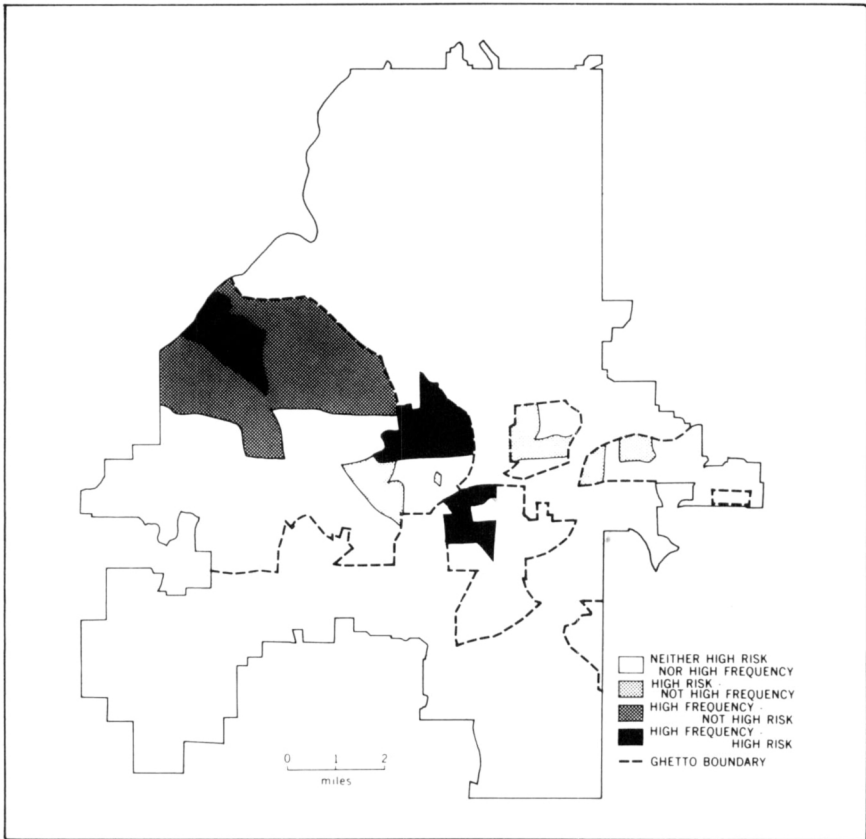


Figure 1. Atlanta – high frequency and high homicide rate neighborhoods – 1970.

of St. Louis city grew very slowly during the previous decade as the city was no longer a prime target of black migration. Likewise, the St. Louis economy was the most stagnant of the group, and this had a serious impact on the black community. The Detroit economy was also beginning to show signs of strain as it began to suffer the effects of the post-industrial transition. Only the growing Atlanta service economy seemed able to easily absorb elements of the black population.

A regional effect has received support from a number of scholars [5, 16, 17] directly influencing homicide propensities. Southerners, it is said, are more likely to resort to violence in efforts to resolve interpersonal grievances than are their northern counterparts. If this is correct, differences should be manifested

in the behavior of segments of this population based on region of origin and strength of commitment to a purported southern regional culture of violence. Based on the age structure of greatest propensity for violent behavior, young adulthood, significant differences are found among cities in terms of region of origin. Most young adults in St. Louis are of non-southern origin, while those in Detroit represent a combination of recent southern migrants and persons native to the city. Only in Atlanta do we find persons who are almost universally of southern origin.

The territorial configuration making up the black community varies among cities in terms of physical expansiveness, residential character, and general quality of life. Nevertheless, it is within these highly spatially segmented communities that its residents act out the daily drama of life. It is uncertain how the character of place influences the daily drama; but the character of place is status identifying, and one's status is known to have an impact on the daily drama. Within the physically expansive Detroit black community, there is greater diversity in environmental quality than elsewhere, although evidence of diversity is clearly apparent in Atlanta as well. The St. Louis community is the least diverse both in terms of status identification and residential character. The size of these communities and their residential character are responsible for quite different residential densities. Atlanta and Detroit tend to represent low density configurations, while St. Louis is a higher density community. There are those who contend that residence in higher density multi-unit structures is associated with lower neighborhood cohesion and subsequently a greater propensity for deviant behavior.

If risk of homicide victimization were uniformly distributed throughout the black community, then risk at the neighborhood level would be highest in St. Louis and lowest in Detroit. In actuality the aggregate risk in 1970 was lowest in Detroit (66 per 100,000) and roughly equal in Atlanta and St. Louis (84 per 100,000). In Detroit one-third of the black community's neighborhoods could be considered high risk. Detroit and Atlanta show greater similarity in terms of residential character and density, but differ on the aggregation of neighborhood risk. On the spatial pattern of risk, in the initial time period, St. Louis and Atlanta are more nearly alike. Homicide density is clearly related to the residential character of the black community, but risk of victimization is apparently associated with a battery of variables that transcends residential character.

The Risk of Victimization and the Internal Character of the Black Community

Where risk is dispersed rather than concentrated, based on neighborhood of victim residence, explanation becomes more difficult. A twelve variable regression model, using census tracts as units of analysis, was employed to test

the explanatory power of selected demographic and status variables, but the results were mixed. In St. Louis, where the black community is compact, the regression model provided a high level of explanation ($R^2 = .701$). In both Detroit and Atlanta, whose black communities are expansive, model results were poor. The variables which proved to be significant in St. Louis were male unemployment and vacancy (level of significance .002 and .014, respectively). In Detroit, only males fifteen to twenty-four years of age were found to be significant; in Atlanta, only median family income and poverty were significantly at levels below .05. Thus, in Atlanta and St. Louis, status variables provided the best explanation; in Detroit they seemed to be of much less importance. The twelve variable models shed only limited light on risk of victimization in the latter two cities. Poverty, however, tends to be implicated in both St. Louis and Atlanta. The Detroit risk pattern appears to be much more complex and defies the standard variable set to provide an explanation. When the data is transformed in a double log format, a slightly better explanation emerges in the Detroit case.

It is possible that the compactness of the black community leads to a high concentration of victims in a small number of neighborhoods, whereas places with a greater number of neighborhoods simply result in a reduction in intensity at the neighborhood scale, even though the level of aggregate risk is quite similar (see Figure 2). This raises the question of the relative importance of external and internal variables in terms of their contribution to victimization, as well as characteristics which reflect the spatial dimensions of one's social support network and lifestyle diversity within segments of the black community. Unless one is able to establish a more refined relationship between risk of victimization and environment of residence, it will be difficult to ascertain the relationship between the aggregate level of homicide victimization and the subsequent spatial response.

THE SPATIAL DYNAMICS OF HOMICIDE FREQUENCY

Any attempt to evaluate the spatial pattern of victimization should include the pattern for more than a single year. A longer time period will allow one to examine the spatial dynamics of homicide victimization. The spatial dynamics will be influenced by patterns of spatial mobility and changes in the level of internal differentiation within the black community. In those locations where the physical dimensions of the black community are being altered as a result of growth, greater differentiation within the community is likely to be visible. But even in non-growing communities, a redistribution of population is in evidence. In most large central cities there has been a thinning out of residential units in those locations serving as the site of the oldest units in the standing stock. This has often permitted low income populations to upgrade their housing supply by occupying vacant units in contiguous tiers of neighborhoods.

In St. Louis, this pattern of racial residential shifts has led to an increasing movement of middle income blacks outside of the city. The process is conditioned by the physical dimensions of the city and the intensity of racial residential turnover. Thus, one should expect some change in the spatial pattern of homicide victimization simply as a function of changes in the scale of the black community.

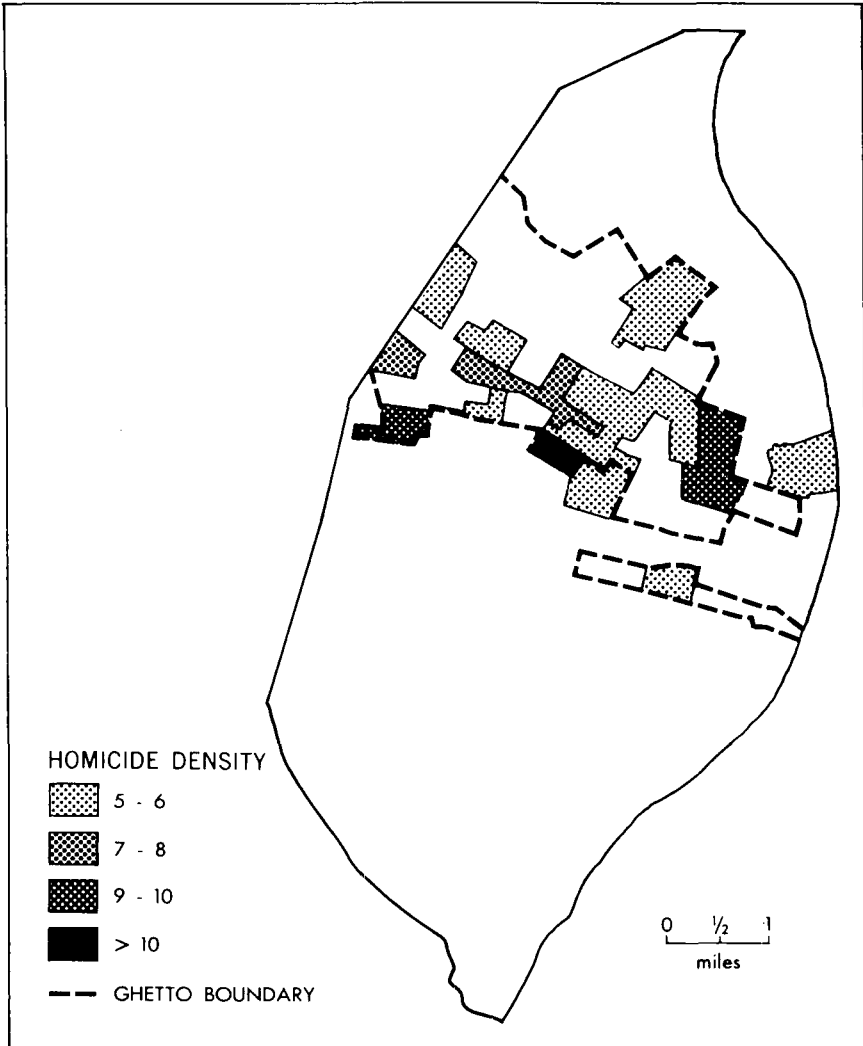


Figure 2. St. Louis — high risk homicide neighborhoods — 1970.

Table 2. The Mean Distance Between Victim's Residence and the Site of Victimization by Victim-Offender Relationship

<i>Place</i>	<i>Family</i>	<i>Acquaintance</i>	<i>Stranger</i>	<i>Unknown</i>
Atlanta	0.30 miles	1.69 miles	1.30 miles	2.04 miles
St. Louis	1.04 miles	2.31 miles	1.80 miles	1.69 miles
Detroit	1.06 miles	1.12 miles	1.03 miles	1.07 miles

SOURCE: Computed from Death Certificate Data Secured from Health Departments of Individual Cities.

The spatial dimensions of the Detroit black community changed most during the previous decade, and that of St. Louis changed least. If forces that contribute to victimizations are at least partially lodged within the black community, i.e., the cultural origins of homicide behavior, then any change in the spatial dimension of the black community should be expected to increase the risk of victimization. Risk might be increased as a function of maintaining social linkages with persons possessing more central locations in the community; by the expansion of the action space of potential offenders; and by personal problems that manifest themselves without regard for location in space.

It is possible that the location of neighborhoods might provide some clues to the circumstances that lead to death. Inner locations appear most often to represent environments in which acquaintance victimizations are more common-place; stranger and family victimizations tend to be more dispersed. The mean distance between place of victim residence and location of victimization site varies according to the relationship between victim and offender (see Table 2). Logically, the shortest distance is associated with family homicides, and the longest distance occurs between acquaintances. Thus, changes in the pattern of victim-offender relationship should influence the spatial pattern of risk.

The longer distance characterizing acquaintance victimizations implies that social networks are possibly more expansive spatially than one had assumed. Specific gathering places possibly draw persons from beyond the local neighborhood. A review of the prevailing spatial pattern of victimization in selected high risk St. Louis neighborhoods reveals that most victimizations occur within the neighborhood in which the victim resides. But one-fifth of the acquaintance victimizations took place in neighborhoods in which the victim was visiting. The pattern of stranger victimization, however, is more complex. Stranger victimizations account for a growing percentage of homicides nationally; but among our sample cities, they have only reached critical levels in Detroit. A more meaningful appraisal of stranger victimizations would be to measure the distance between the place of victim and offender residence. This would indirectly illustrate the extent to which felons are willing to travel specific distances to locate suitable criminal targets. As is, one can only conclude that

individuals killed by persons unknown to them are also likely to be killed less than two miles from their place of residence.

The Role of Victim-Offender Relationships on Neighborhood Risk

It has been observed that neighborhoods which qualify as high risk are often those in which a specific category of the victim-offender relationship serves as the catalyst for risk. In both Atlanta and St. Louis, high risk neighborhoods are most often those in which the minimum qualifying number is satisfied by victims who were acquaintances of their offenders. Thus the larger percentage of acquaintance homicides among the total, the higher the likelihood of the emergence of high risk neighborhoods. One-third of Atlanta's high risk neighborhoods in 1970 were anchored by acquaintance victimizations. Family homicides accounted for almost one-sixth of these high risk environments. The latter, though, were found outside of the low income areas that generally served as the site of the primary acquaintance zone of victimization. In St. Louis where acquaintance victimizations account for an even greater percentage of the total, this relationship is responsible for one-half of the neighborhoods that qualify as high risk. As was true in Atlanta, high risk acquaintance neighborhoods were characterized by a pattern of risk concentration. But unlike Atlanta, a few high risk neighborhoods were anchored either by stranger or unknown victimizations. The latter neighborhoods were more often found toward the periphery of the community. It is difficult to account for the heightened risk of victimization among persons whom we have described as acquaintances beyond what Waldron and Eyer describe as an increase in impulsive rage, which is thought to be related to a corresponding increase in tension [4, p. 375]. Angry young men characterized by low impulse control, when concentrated in poverty environments, are most likely to contribute to the emergence of high risk environments.

The previously described patterns were based on data for a single year. In order to assess the temporal pattern of spatial shifts in victimization, it was decided to group contiguous high risk neighborhoods into a series of clusters and thus observe the spatial change in an assemblage of neighborhoods. This procedure results in losing information at the neighborhood scale, but provides greater insight into the nature of the victim-offender relationship within specific clusters such that it is possible to generalize about differences in these relationships within segments of the black community.

Temporal Changes in the Spatial Pattern of Risk

Clusters were identified in each city in both 1970 and 1975. The distribution and spatial magnitude of these clusters showed evidence of change in each place during this interval. The greatest change occurred in Atlanta and Detroit; the

least change occurred in St. Louis (see Figures 3 and 4). In both 1970 and 1975, St. Louis embraced three primary clusters and one secondary cluster. Because of the size of the St. Louis black community, its primary clusters were contiguous in both time periods. The most notable change in these clusters was the declining role of the eastern cluster as a major homicide environment and the increasing contribution of the western cluster as the place of residence of the greatest number of victims. In 1970 there was a slight majority of instrumental deaths in all clusters, but by 1975 the slight majority favored expressive victimizations. The latter pattern can be partially explained by the conduct of young adult males. For it was this group that made up the largest number of victims in each of the primary clusters by 1975; yet this did not represent the modal age structure of homicide victimization in 1970.

The growing extent to which young black males are being caught up in activities that lead to death is possibly indirectly linked to economic characteristics of the city. St. Louis suffered the most extensive depopulation of any American city during the sixties. Accompanying the movement of people to the suburbs was the movement of jobs. In the city, entry level jobs necessary to absorb new entrants to the job market are seldom adequate, both in terms of numbers and perceived desirability. Declining opportunity provides young adult males with more discretionary time that is likely to be spent in a variety of public and private settings which persons frequent to fill their days. In such settings trivial incidents often serve as the triggering mechanism in the homicide transaction. The incident may revolve around gambling debts, previous arguments, insults, sexual conflicts, or drug transactions. Whatever the triggering mechanism, an increasing number of persons have available to them a greater amount of time to be spent in leisure settings. Lowry, in a recent essay that focused on "The Dismal Future of Central Cities," employed St. Louis as an example on which to build his case [18, pp. 163-172]. It is indeed a dismal future for persons unable to gain a foothold in a depressed economy, as the homicide statistics appear to attest.

Atlanta and St. Louis possess a number of similarities. Among them are the comparable sized black populations and the similar number of homicides at the beginning of the period. During the seventies, Atlanta's economy has been characterized by growth, and homicides had begun to decline prior to mid-decade. In 1970, three high risk homicide clusters were located in the Atlanta black community. Eighty-one per cent of all victims were residents of these three clusters. They included a cluster to the east and a cluster to the south of the central business district and a third west side cluster, within which more than two-fifths of all victims resided. Victim-offender relationships in each cluster were overwhelmingly expressive. But family homicides were of much greater importance in Atlanta than they had been in St. Louis. Even so, acquaintance victimizations predominated in each cluster in the initial time period.

In 1975, there were four identifiable high risk clusters in Atlanta, but they

included many fewer neighborhoods than had been the case in 1970. The greatest change was observed in western Atlanta where a series of three contiguous neighborhoods on the city's edge made up that cluster. Each of the clusters had also experienced a dropping out of high risk neighborhoods between intervals. Only 22 per cent of black victimizations in 1975 were associated with high risk clusters. Homicide density has declined during the period in response to both changes in the aggregate number of homicides and changes in the

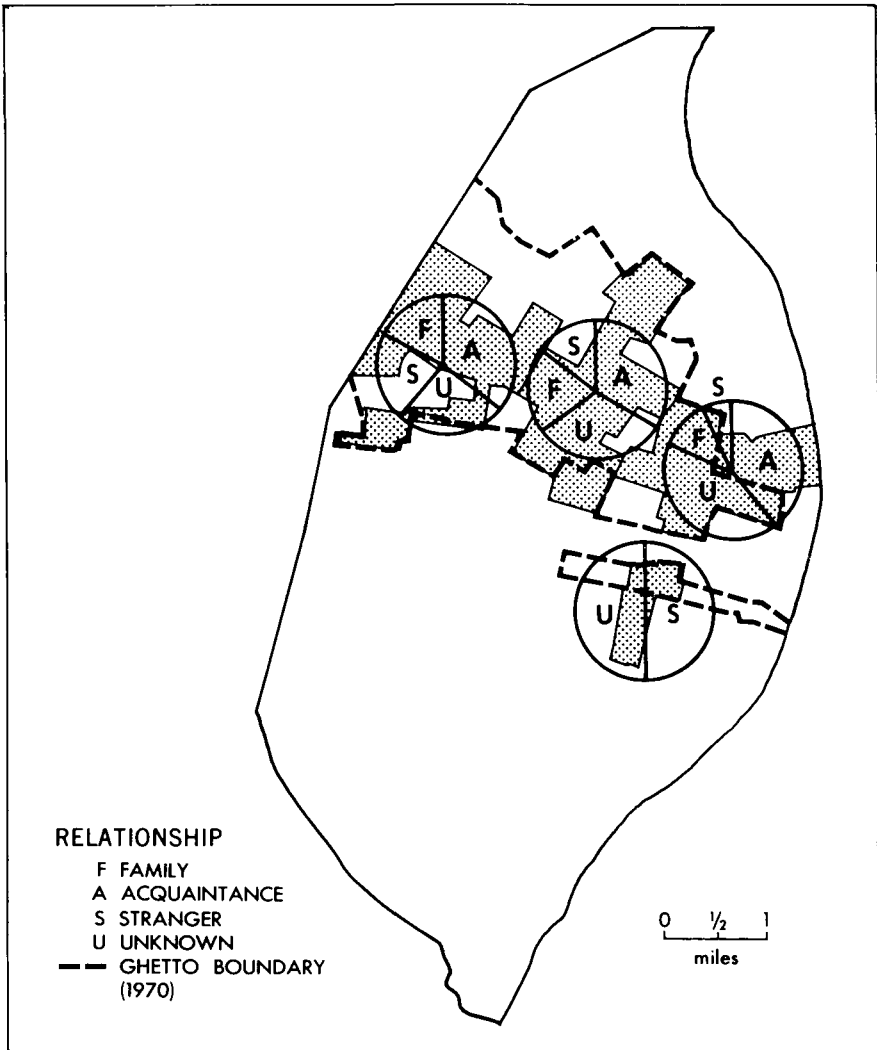


Figure 3. St. Louis – victim/offender relationships (high homicide incidence areas) – 1970.

pattern of victim-offender relationships. In the smaller 1975 clusters, the relative importance of acquaintance homicides had decreased, while that of family homicide had increased. Only in that cluster south of the CBD did acquaintance victimizations retain their 1970 strength. It is unclear if the population present in the 1975 clusters is different in significant ways from those present in 1970, or if external forces associated with circumstances surrounding the occurrence of homicides had been altered. One is inclined to

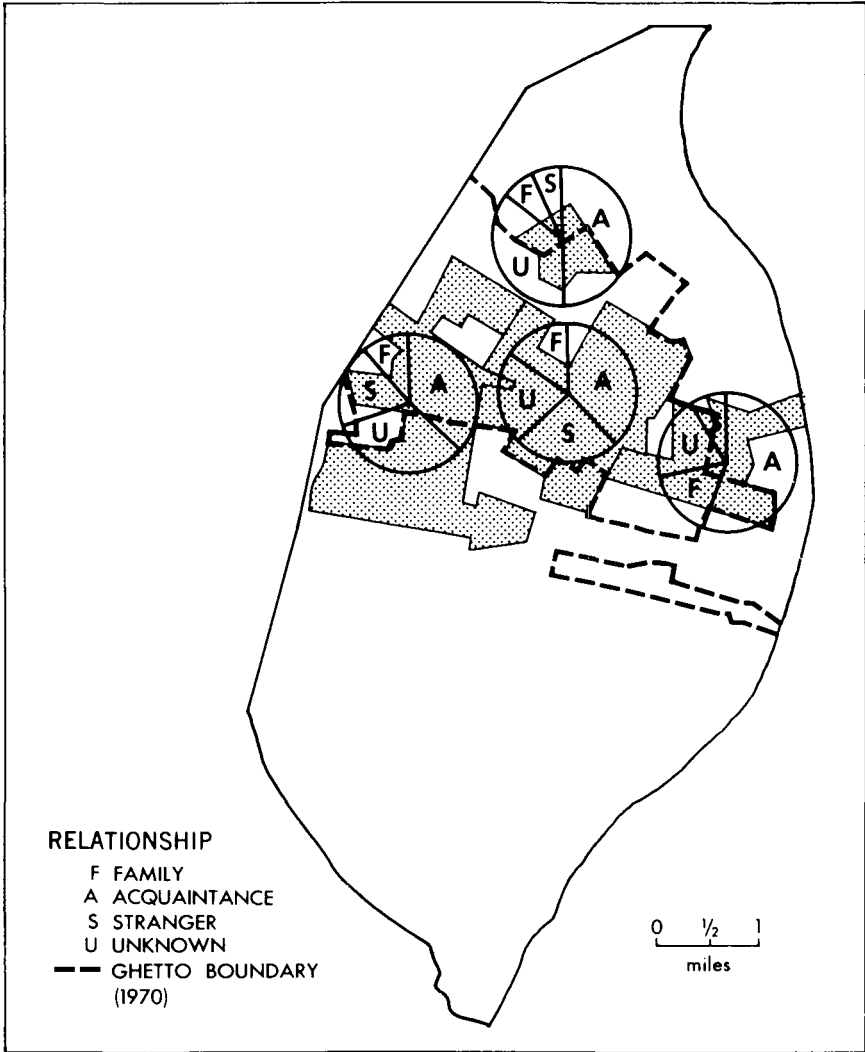


Figure 4. St. Louis – victim/offender relationships (high homicide incidence areas) – 1975.

assume that an increase in economic opportunity for young males resulted both in a reduction in the aggregate number of homicides as well as homicide density. The age structure of victimization in Atlanta is weighted toward the mature end of the age spectrum (>thirty years). This is unlike the pattern that prevails in St. Louis.

Detroit, the third city in this high risk triumvirate, has been characterized by a more rapid increase in the number of homicides, over a short time interval, than either of the other cities. Not only has the magnitude of the problem changed quickly, but so has the pattern of victim-offender relations. By 1970 instrumentally motivated deaths had already begun to represent a major share of this city's victims. Zimring, in attempting to assess the contribution of handguns on Detroit's rapidly increasing robbery-homicide rate, described the emerging pattern as the "new American homicide." [2, p. 31] Others who have investigated the Detroit homicide scene have largely focused on what Wilt and Bannon describe as conflict-motivated homicides [19]. Boudouris, in a historical assessment of homicide in Detroit, selected family homicide as a primary point for departure [12, pp. 667-676]. But by 1975 the family accounted for only 18 per cent of all homicide deaths in the city.

None of the above studies focus specifically on the homicide environment, although Wilt and Bannon do indicate in which police districts conflict-motivated homicides occur most often. The spatial distribution of felony related homicides, however, was recently detailed by Rose and Deskins [20]. The latter writers attempted to link the regional origins of segments of Detroit's black population to the spatial propensity for felony versus non-felony homicides. The manner in which they went about this task leaves much to be desired, but nevertheless they have opened the door to further investigation along these lines. Thus, homicide in Detroit has attracted the attention of a number of investigators, but most have chosen to focus on traditional homicide patterns and few have devoted attention to the spatial aspects of the changing homicide drama, in what is now projected to be the nation's third largest black community.

The spatial pattern of homicide victimization in Detroit differs from that in the other cities by showing a broader pattern of dispersion throughout the period under investigation; the development of numerous high risk clusters beyond the boundaries of the 1970 black community; and a greater diversity in the victim-offender relationship from cluster to cluster. There was a 20 per cent increase in the number of black homicide victims between 1970 and 1975, and this resulted in an altered spatial pattern of residence of victims, both in terms of the spread of risk and the modal-offender relationship in specific high risk clusters. This change in scale of victimization also resulted in an alteration in the age structure of victimization. The changing age structure of victimization has contributed greatly to both the structure of victim-offender relationships and victim residence. Approximately 57 per cent of the deaths of young adult males were associated with instrumental behavior during the period 1970-1975. This behavior was more commonplace during the early years of the period, with

expressive behavior assuming greater importance during the latter part of the period.

In 1970 there were seven high risk clusters in the city, but by 1975 fourteen such clusters could be identified (see Figures 5 and 6). Since little change had occurred in the total number of homicides in the two periods, one can conclude that there was a decrease in homicide density at the neighborhood level and an increase in the risk along the periphery of the 1970 black community. Of the neighborhoods of victim residence outside of the 1970 black community, two-fifths were high risk neighborhoods. Thus, the expansion of the black community into areas remote from the core of the community did not sharply lower the risk of victimization. This dispersion did have the effect of breaking up some of the previous clusters into smaller ones, thereby creating an illusion of cluster growth. Four additional clusters did come into existence, however, which appear to be unrelated to the declining intensity of victimization in more central locations. The largest of the new clusters came into being along the western and northwestern edges of the 1970 black community.

The greatest number of victims were residents of the same basic clusters in both time periods. The west central cluster was the place of residence of approximately 25 and 30 per cent, respectively, of all victims residing in the high risk clusters. This cluster in the initial time period included more residents who were victims of instrumental behavior than who were victims of expressive behavior. But by 1975 expressive violence was more commonplace, especially violence among acquaintances. The northwesternmost cluster remained the site of instrumental dominance in both time periods. It should be pointed out, though, that individual clusters do differ somewhat in their spatial dimensions during the two intervals under investigation. The recently emerged western clusters on the edge of the expanded black community are zones where expressive violence tends to predominate. In the northwestern cluster, lethal violence perpetrated by acquaintances represents the most frequent act of violence, although to the south, family violence represents the primary contributor to death. East side clusters were characterized by a dominance of expressive violence in both time periods; the one exception to this was that of a near east side cluster in which instrumental violence showed a slight predominance in 1970.

It is evident from the previous discussion that the spatial patterns of homicide victim residence change over time, subject to the dynamics of housing market behavior and fluctuating aggregate levels of victimization. In black communities whose dimensions are undergoing rapid change, homicide density tends to decline, while those characterized by limited change are associated with density shifts but not necessarily density declines. The depiction of the spatial shifts in high risk clusters during two time periods is instructive, but suffers by being unable to address the question of risk on a continuous basis. In order to overcome this weakness, the pattern of cumulative homicides for the period

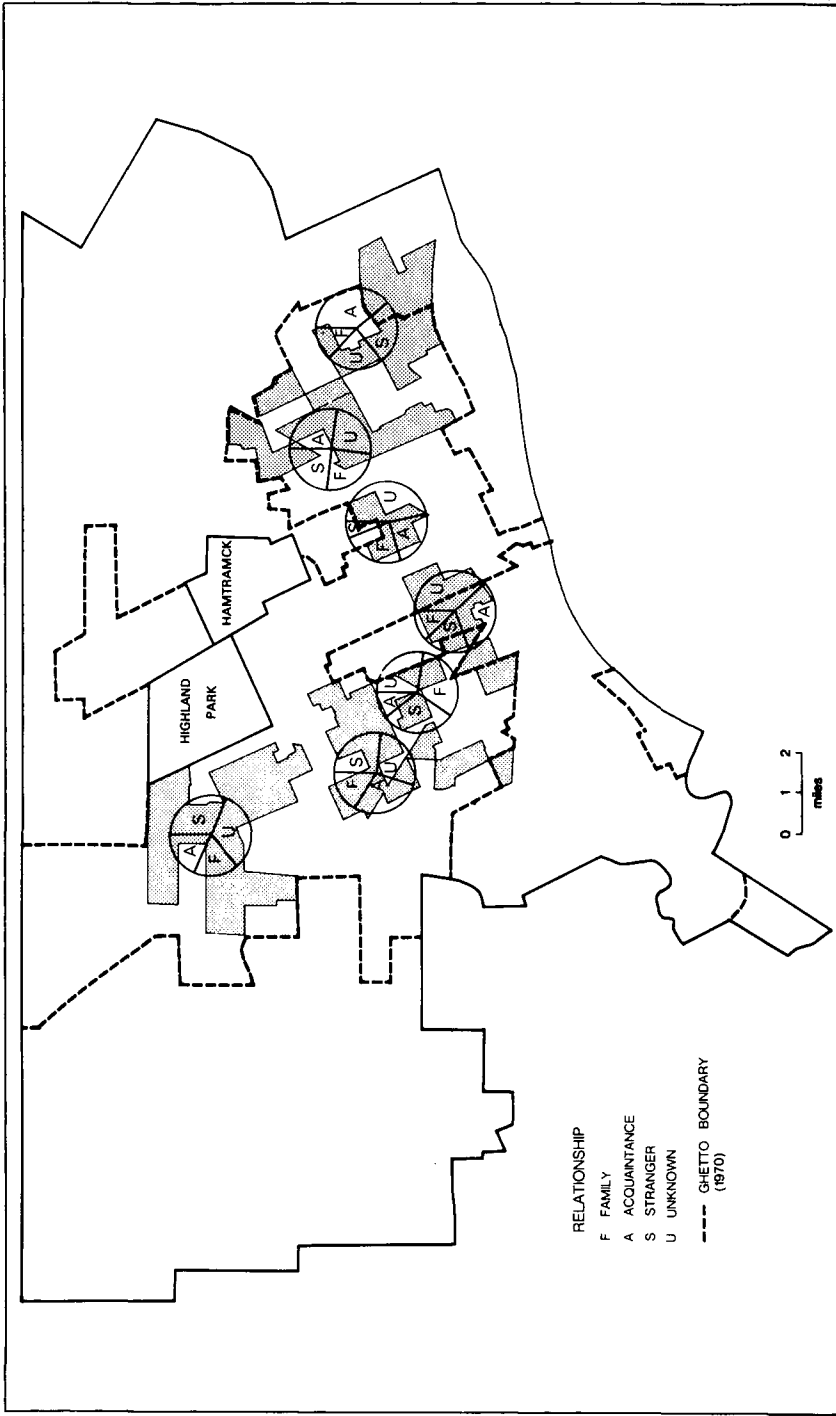


Figure 5. Detroit — victim/offender relationships (high homicide incidence areas) — 1970.

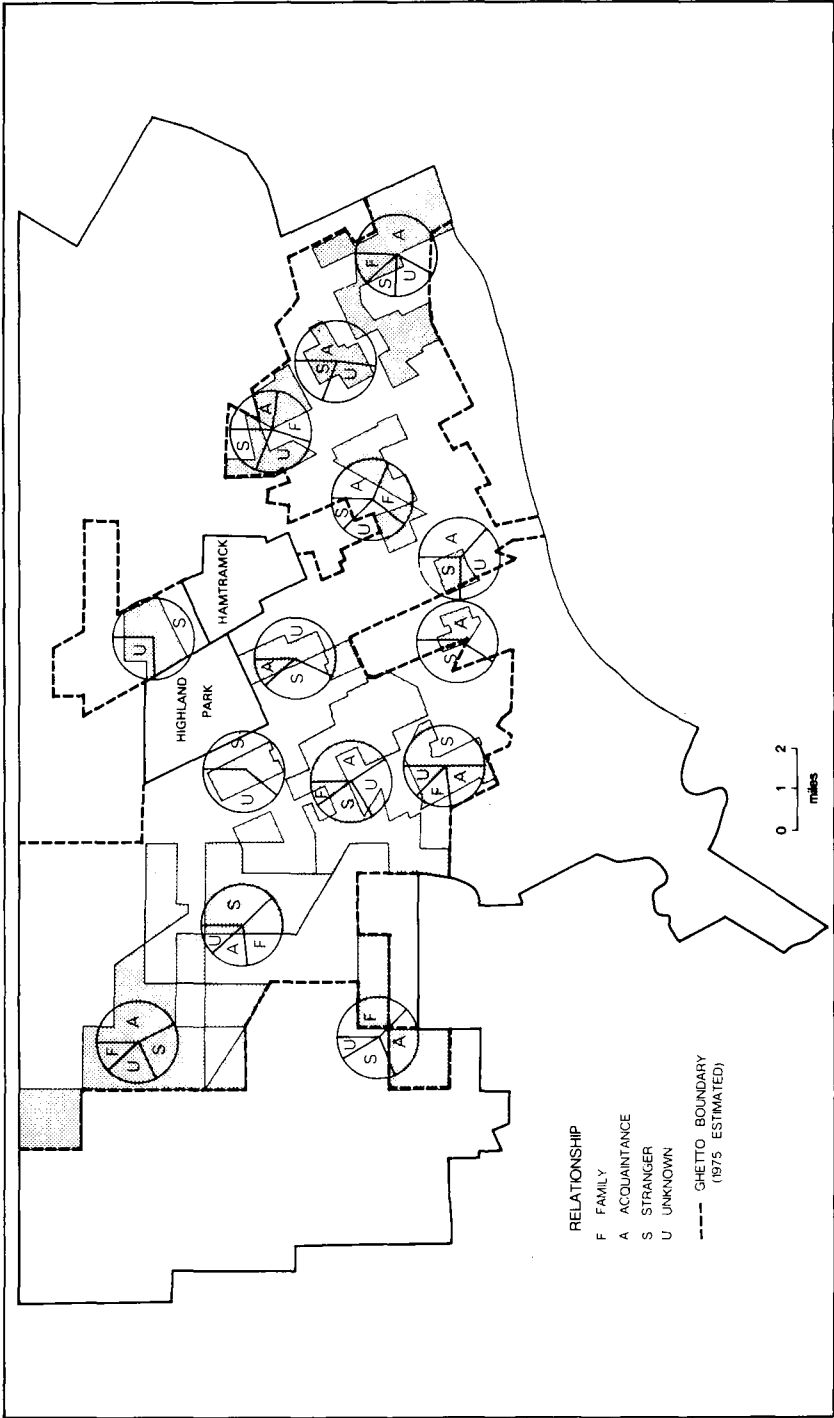


Figure 6. Detroit — victim/offender relationships (high homicide incidence areas) — 1975.

1970-75 was determined for the cities of Detroit and Atlanta. In doing this, the level of victimization at the neighborhood scale can be registered for a continuous series of years. The end result is to illustrate the presence of persistent high risk neighborhoods rather than the distribution of high risk in discrete time periods.

THE PERSISTENCE OF HIGH RISK HOMICIDE ENVIRONMENTS

Persistent high risk is defined as neighborhoods where a minimum of twenty victims resided during the previously stated interval. Persistent high risk was confined to a total of only one-fifth of the neighborhoods in the 1970 Detroit black community, but more than half of the neighborhoods in the Atlanta black community (see Figures 7 and 8). In both cities, persistent high risk neighborhoods are essentially confined to the 1970 community, with only minimal evidence of spillover. The spatial pattern of risk differs in the two cities largely in response to regional differences in the way blacks are allocated housing. Neighborhoods in which expressive based conflict is quick to ignite dominate Atlanta; a mixed conflict pattern is in evidence in Detroit.

In Detroit, persistent high risk is concentrated in a cluster of high risk neighborhoods ranging from two to six miles from the center of the city. An outlier just beyond the six mile band can be observed, just as can isolated neighborhoods within two miles of downtown. The four to six mile zone was one in which neighborhood stress was described as intermediate in intensity in 1970, an indication of the juxtaposition of the poor and non-poor. It is in such zones that instrumental violence tends to be more commonplace. Block also detected this pattern in selected Chicago community areas [21, pp. 50-53]. Instrumental motivations most often showed themselves in the single largest cluster of persistent high risk neighborhoods in both 1970 and 1975. The west central group of neighborhoods that make up this cluster was previously employed to distinguish the southern pattern of violence from the non-southern [20]. Thus, persistent high risk is most in evidence in Detroit neighborhoods extending less than six miles from the city center, but even then pockets of high risk represent the modal pattern.

In Atlanta, persistent high risk is most often associated with poverty or near poverty neighborhoods, although some exceptions are apparent. Since conflict between friends and relatives represents the circumstances under which acts of violence are most often perpetrated, the prevailing spatial pattern represents a logical one. The zone of high and high middle status black occupancy in southwest Atlanta, as described by Hartshorn and others [22], is devoid of persistent high risk neighborhoods. The disappearance of the persistence of high risk in Atlanta is most likely to be associated with reducing the intensity of expressive violence particularly that occurring among acquaintances.

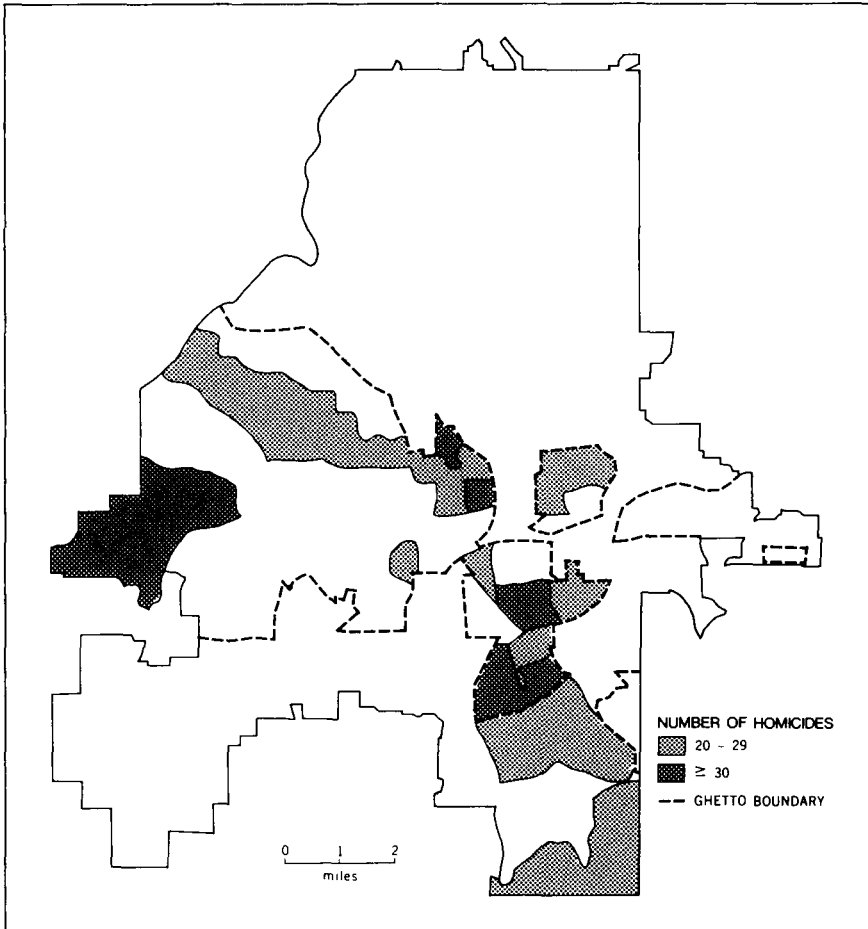


Figure 7. Atlanta — cumulative high incidence black homicide environments — 1970-1975.

Since 1975 both the aggregate level of homicide victimization and its corresponding pattern have shown signs of fluctuation. A downward trend has been most apparent in Atlanta, but Detroit appears to have reached a peak and is experiencing a continuing decline in annual victimizations. Only St. Louis among the three has shown evidence of a continuous upturn since mid-decade. The spatial impact of the Detroit downturn is illustrated in Figure 9. That figure indicates that most of the persistent high risk neighborhoods were those showing the largest per cent decline during the interval. Some increase in risk of victimization, however, was observed in an almost equal number of neighborhoods in zones of black expansion. By 1977 there had been a further

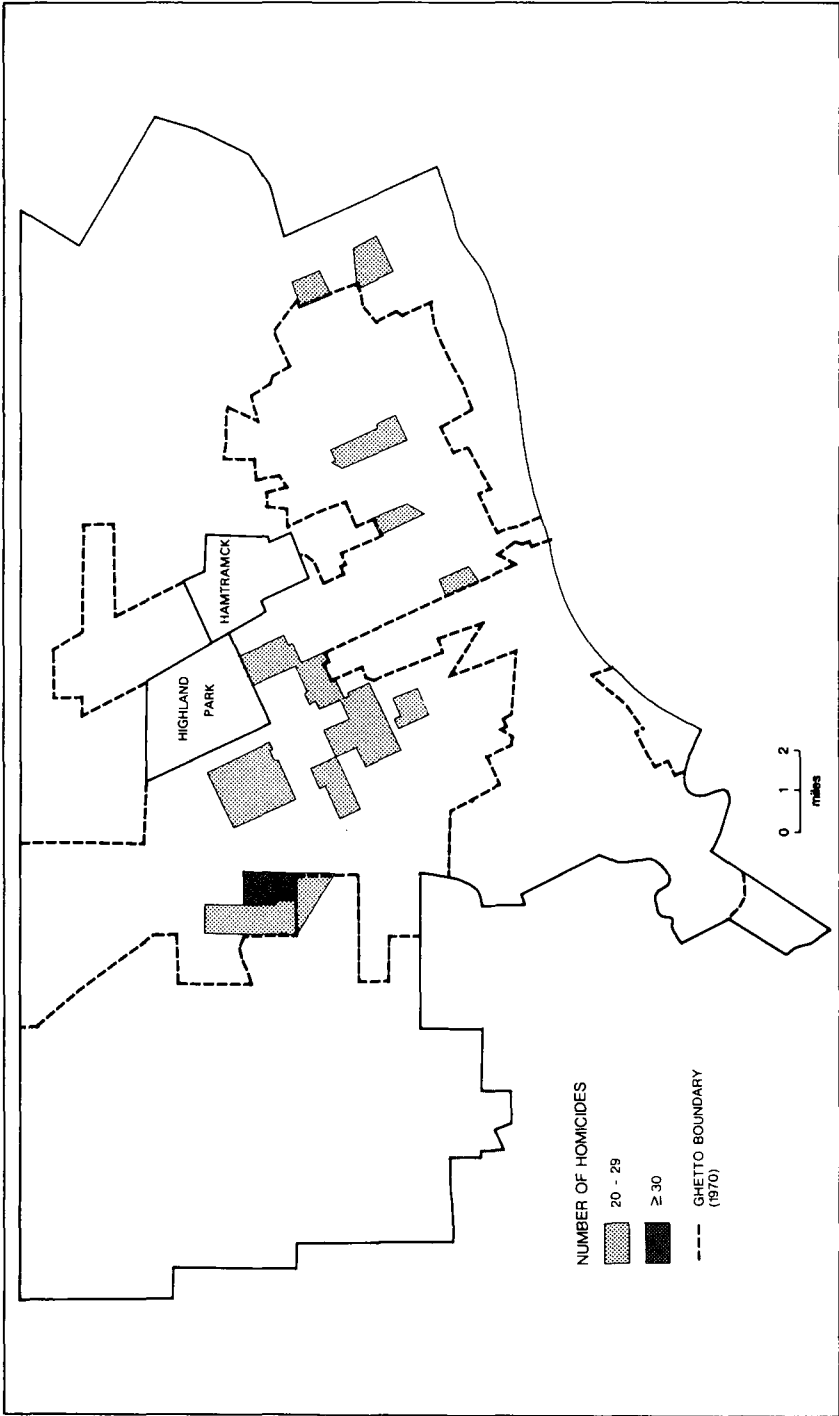


Figure 8. Detroit — cumulative high incidence black homicide environments — 1970-1975.

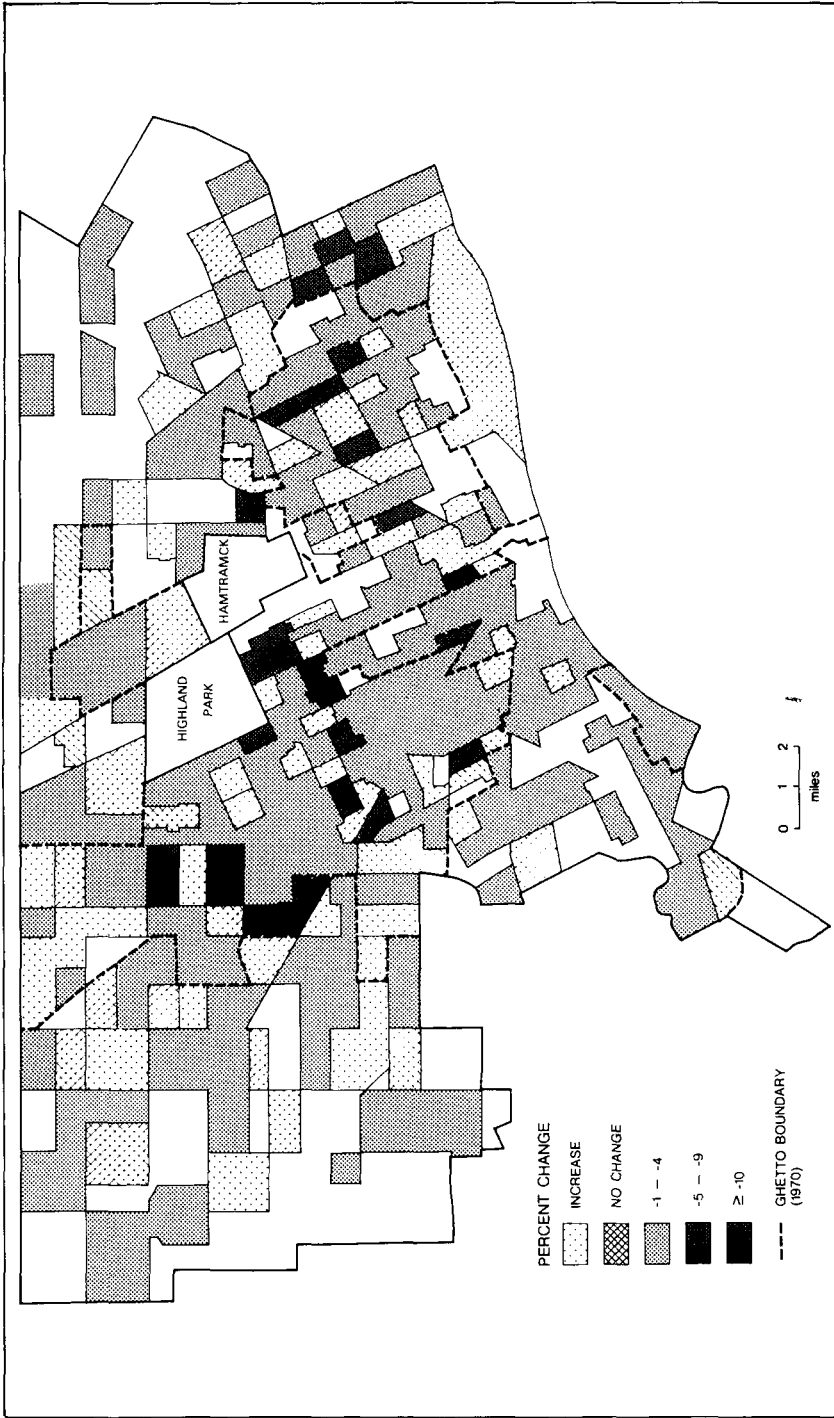


Figure 9. Change in spatial pattern of homicides in the Detroit black community — 1973-1977.

lowering of the incidence of both stranger and family homicides. It is believed that this alteration in the structure of victimization has had a positive impact on the persistent high risk neighborhoods.

CONCLUSION

Spatial risk of homicide victimization has seldom been investigated. But the growing importance of homicide as a cause of death in the nation's larger black communities makes it imperative that we begin to understand the environmental link on causation, as well as macroscale and microscale variables, i.e., personality, lifestyles, etc. This paper has simply attempted to document changes in the spatial pattern of victimization in three cities where aggregate risk in the black community was known to be high.

The implications of these patterns are complex, but even so some generalizations can be made. The intensity of dispersion or concentration of homicide victims is basically associated with the extent of change in the physical dimensions of the black community. But the nature of the patterns of victim-offender relationships is likely to influence homicide density, holding growth constant. Conditions of limited growth and a primary increase in homicide among acquaintances appear to increase density, while instrumental victimizations appear to be more dispersed. In Detroit, however, persistent high risk neighborhoods were observed in which instrumental as well as expressive homicides represented the modal type. The question is likely to be asked, "Do persistent high risk neighborhoods represent pockets which might identify a subculture of violence?" No attempt has been made to treat that possibility in this paper, but for the proponents of the existence of a subculture of violence the notion might be tantalizing. A major weakness of an assessment of this type is its total reliance on victimization data. Without similar offender data, one would be on shaky ground in attempting to substantiate the presence of clusters that might be associated with the prevalence of a subculture of violence.

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Direct reprint requests to:

Professor Harold M. Rose
 Departments of Urban Affairs and Geography
 University of Wisconsin
 Milwaukee, Wisconsin 53201