Explaining Regional and Urban Variation in Crime: A Review of Research

by Graham C. Ousey

ABSTRACT

Beginning with the moral statisticians Guerry and Quetelet and continuing to the present, criminologists have repeatedly shown that serious crime rates vary across geographic units. The most prominent framework for explaining this variation is the macrosocial perspective, which asserts that the crime rate is a reflection of social organization. In this paper, I review research from the past few decades that examines the distribution of crime across regions, metropolitan areas, cities, and neighborhoods. Research on the regional variability in crime primarily has focused on explaining Southern/non-Southern differences in homicide through two theoretical models: the Southern culture of violence and economic deprivation. Despite some inconsistency in this literature, there is considerable evidence that supports each view. Studies examining variation in crime across cities and metropolitan areas have mostly focused on two explanatory perspectives: social stratification and social control. Within the social stratification literature, there is a lively debate between proponents of absolute and relative deprivation models. Although the evidence is somewhat mixed, research suggests that as both absolute and relative deprivation increase, there is a corresponding increase in aggregate crime rates. Research on the social control perspective generally supports the view that cities and metropolitan areas with higher levels of informal social control (e.g., family structure, residential stability) have lower crime

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rates. Finally, neighborhood-level research shows that recent extensions of the macrolevel social control model have improved explanations of community-level variation in crime rates. Indeed, the evidence suggests that neighborhoods with higher levels of informal social control (e.g., peer supervision, social ties, collective efficacy) have lower crime rates. However, these social control effects vary by the race and class composition of neighborhoods. Important directions for future research on regional and urban variation in crime are discussed.

ABSTRACT

Aggregate-level research on crime can be dated to the work of the moral statisticians Guerry and Quetelet, who were among the first to formally note that rates of crime were distributed unevenly across geographic space. In the United States, H.V. Redfield (1880) was one of the first to study spatial variation in crime, observing that crime rates were highest in the Southern United States. Since Redfield's pioneering work, interest in the differential distribution of crime across geographic areas has grown tremendously. As interest has grown, scholars have come to realize that understanding the correlates of variation in crime rates across metropolitan areas, cities, and neighborhoods is as important as understanding the etiology of regional crime differences.

The most prominent explanations of the observed aggregate-level variation in crime are derived from a macrosocial perspective. In contrast to individual-oriented perspectives that assume that crime rates are the sum of the behavior of individuals, the macrosocial perspective asserts that crime rates are an aggregate-level property that reflects the social organization of the community or society. Given this view, macrosocial explanations of crime are rooted in the two major components of social organization: social structure and culture. Social structure refers to the positions, networks, and institutions that provide the basic framework for society. Social structural theories of crime emphasize the ways in which the distribution of these positions, networks, and institutions affects the crime rate in a community. Culture refers to values, beliefs, norms, symbols, and other products of human social communities (Gelles and Levine 1999). Cultural theories of crime focus on how areal differences in values, norms, and beliefs lead to aggregate-level variation in crime rates.

In this chapter, I review research from the past few decades that examines variation in crime rates across regions, metropolitan areas, cities, and neighborhoods. The paper has four sections. The first describes regional differences in several forms of serious crime since 1960, and then reviews research examining cultural and structural explanations of these regional crime differences. The second section discusses variation in crime rates across cities of varying population size and reviews macrolevel research on serious crime rates in metropolitan areas and cities. The third section is a summary of recent theoretical and empirical work on social disorganization theory, the most prominent explanation of neighborhood-level variation in crime. Finally, from the data presented and research reviewed, I discuss promising directions for future inquiry on regional and urban variation in crime rates.

Regional Variation in Serious Crime

Trends in serious crime by region

In the United States, Redfield (1880) began the regional crime research tradition when he showed that homicide was concentrated in the South. Following his work, scholars frequently have documented regional variation in serious crime rates in the United States. In the paragraphs that follow, I use the Federal Bureau of Investigation's (FBI's) Uniform Crime Report data to examine continuity and change in regional differences in homicide, robbery, and burglary rates over the past four decades.

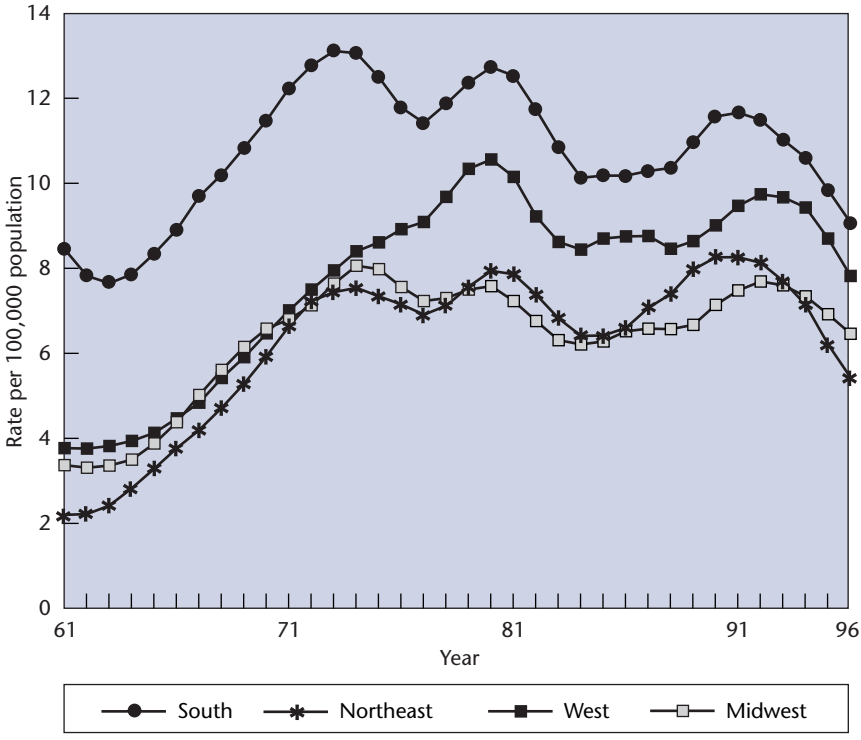
Exhibit 1 is a graph of the 3-year moving average homicide rate for each region for the 1961–96 period.[1] One noteworthy feature is the remarkable similarity in homicide trends by region. In each region, there is a substantial and rather monotonic increase in homicide rates that begins in the early 1960s and ends in the mid-1970s. Following this upswing, rates fluctuate until around 1993, when a fairly substantial trend of decreasing homicide rates occurs in each region.

In addition to the notable similarity in the overall patterns of homicide for each region, there is tremendous continuity in the South's position as the most homicidal region of the United States. Consistent with the findings reported by many previous scholars, the South has the highest homicide rate every year between 1960 and 1997. However, the gap in homicide rates between the South and the other regions has narrowed considerably in the past 40 years. Indeed, while the ratio of the South's homicide rate to each of the other regions ranged between 2.5 (South/West) and 4.3 (South/Northeast) to 1 in 1960, by 1997, these ratios dropped to between 1.2 (South/West) and 1.8 (South/Northeast) to 1. Thus, in terms of homicide rates, the South and non-South have become less distinct over time.

Overall, robbery rates (exhibit 2) follow a temporal pattern similar to that observed for homicide. That is, relatively low rates in the early 1960s begin to ascend sharply in the mid-1960s, peak in the early 1980s and early 1990s, and fall substantially through the late 1990s.

More interesting is the fact that the South has relatively low robbery rates when compared with the other regions of the country. Indeed, the South has the lowest robbery rate through the early 1980s and the second lowest rate for the remaining years studied. However, as with homicide, the gap between the South and the other regions declined over time. In fact, by the late 1990s, the robbery rate in the South is nearly identical to the rates observed in the Northeast and West. Finally, the change in the position of the Midwest in the

Exhibit 1. Homicide rates by region, 1961–96 (3-year moving average)

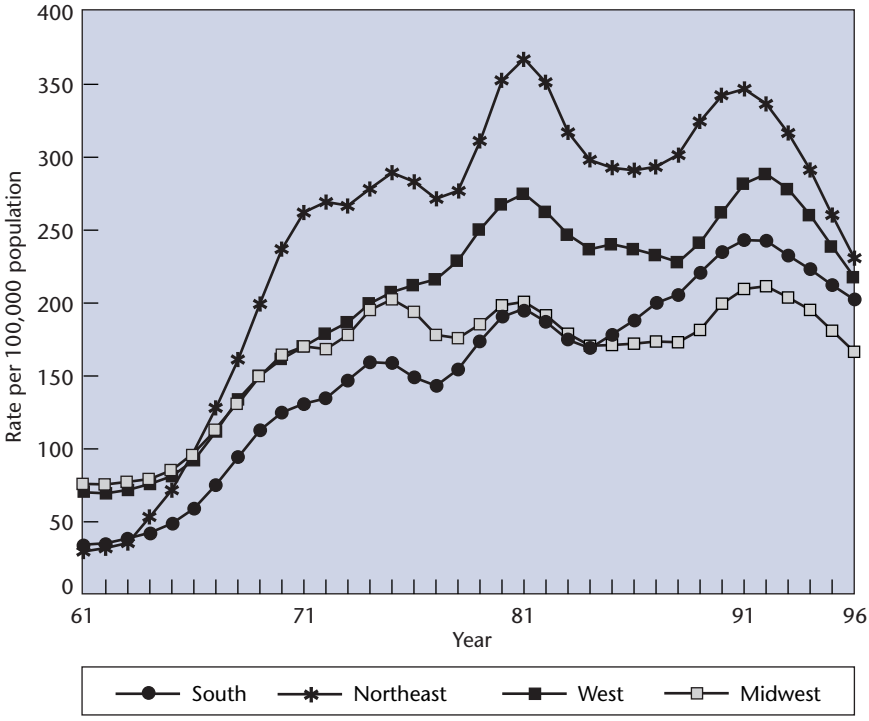


Source: U.S. Department of Justice, Federal Bureau of Investigation 1960–97.

regional robbery rate rankings also is conspicuous. In 1960, the Midwest showed the highest rate of robbery. However, since then, the increase in robbery rates in the Northeast, West, and South outpaced those experienced in the Midwest. Consequently, by 1985, robbery rates in the Midwest dropped below those of the other regions and have remained there through the late 1990s.

Consistent with the patterns for homicide and robbery, burglary rates (exhibit 3) were relatively low in 1960 and began a sharp increase in the early to middle 1960s, reaching a high point in the early 1980s. However, unlike the trends for homicide and robbery rates, burglary rates exhibit a rather consistent decline after the peak of the early 1980s. The only noticeable exception to this pattern occurred in the South between 1984 and 1988, when burglary rates increased.

Exhibit 2. Robbery rates by region, 1961–96 (3-year moving average)

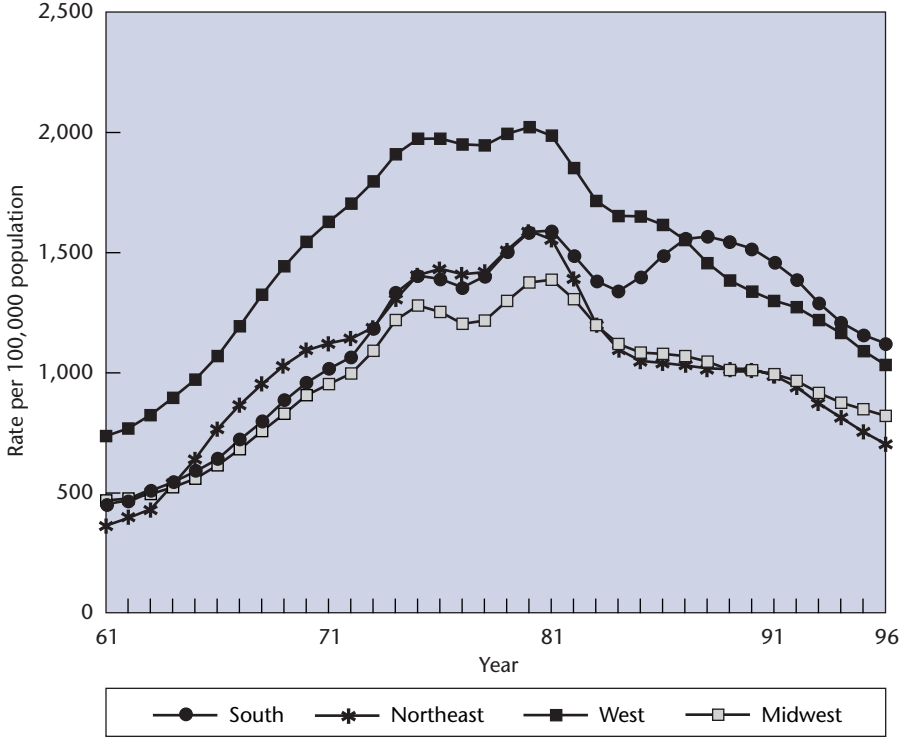


Source: U.S. Department of Justice, Federal Bureau of Investigation 1960–97.

Through 1986, burglary rates were markedly higher in the West than in the other three regions of the United States. On the other hand, rates in the Northeast, South, and West were quite similar. In 1984, however, this pattern changed. Burglary rates in the South began to ascend, while those in the Northeast, Midwest, and West remained flat or declined. Thus, by 1987, burglary rates in the South surpassed those in the West. Since that time, burglary rates in the South have remained slightly higher than those in the West, although both regions have shown a general decline throughout the 1990s.

To summarize, the data show that all four regions of the Nation experienced roughly similar trends in homicide, robbery, and burglary between the early 1960s and the late 1990s. Nonetheless, there were substantial differences between

Exhibit 3. Burglary rates by region, 1961–96 (3-year moving average)



Source: U.S. Department of Justice, Federal Bureau of Investigation 1960–97.

regions in homicide, robbery, and burglary rates throughout this period. Most prominent among these regional differences is the gap in homicide rates between the South and non-South. Throughout the four decades discussed, the South had a higher rate of homicide than any of the other regions. However, evidence suggests that regional homicide rates have converged to some degree over the past four decades. Less prominent but still interesting are regional differences in robbery and burglary offending rates. Robbery rates in the Northeast exceed those of the other regions throughout the final three-fourths of the period examined. Meanwhile, during the first three-fourths of the period, rates of burglary in the West are noticeably higher than outside the West.

The Southern culture of violence model attributes the South's high homicide rates to cultural values that evolved from that region's unique history. Two prominent aspects of this culture are an exaggerated sensitivity to derision and the expectation that indignities will be handled personally, promptly, and violently.

Explaining South/non-South differences in criminal violence

There is a long tradition of research documenting the high homicide rates in the Southern United States (Hoffman 1925; Brearley 1932; Lottier 1938; Porterfield 1949). As the preceding analysis suggests, regional differences in homicide remain evident throughout the past four decades. Due in part to the remarkable persistence of these differences, researchers have become increasingly interested in explaining the South's proclivity for lethal violence. To date, two general explanatory models have framed research in this area: the Southern culture of violence and economic deprivation.

Culture of violence versus economic deprivation

The Southern culture of violence model attributes the South's high homicide rates to cultural values that evolved from that region's unique history. Two prominent aspects of this culture are an exaggerated sensitivity to derision and the expectation that indignities will be handled personally, promptly, and violently. Some have described this Southern perspective as a "siege mentality" and consider it a reaction to non-southerners' frequent assaults on the historical peculiarities associated with life in the South (e.g., the institution of slavery, the persistence of agriculture and rural lifestyles) (Hackney 1969). Still others blame proviolence values on the lawlessness of the Southern frontier, which required people to resolve their disputes through informal means (e.g., duels, brawls, etc.) (Brearley 1932; Bruce 1979; Reed 1982). Regardless of the origin of this Southern culture, its most important implication is that violence is condoned in a broader range of situations than is acceptable in non-Southern cultures. As a consequence, interpersonal disputes are more likely to be resolved through violent means, resulting in a high violent crime rate.

Most contemporary researchers view the empirical studies of Hackney (1969) and Gastil (1971) as starting points for the recent debate on the source of the South's high violence rates. Consistent with the Southern culture of violence perspective, Hackney and Gastil report that after accounting for the influence

of economic and structural characteristics, rates of lethal violence remain higher in the South than in the non-South. They interpret these findings as evidence that differences in cultural values, rather than structural conditions, are responsible for high rates of homicide in the South.

In contrast to the Southern culture of violence model, the economic deprivation perspective suggests that high rates of poverty and economic distress explain the comparatively high violence rates in the South. Although this perspective does not necessarily deny that regional value differences exist, it suggests that these differences have little impact on crime rates, once socioeconomic differences are controlled. Support for the economic deprivation over the Southern culture of violence model was first reported by Loftin and Hill (1974), who found that South/non-South differences in homicide rates are explained entirely by regional differences in economic disadvantage.

Subsequent studies testing the merits of these two competing perspectives have produced inconsistent results. Although a number of studies report important South/non-South differences in homicide after controlling for socioeconomic conditions (Blau and Blau 1982; Messner 1982, 1983a; Simpson 1985; Rosenfeld 1986; Fowles and Merva 1996; Land, McCall, and Cohen 1990; Peterson and Krivo 1993; Parker and McCall 1997; Ousey 1999), several others do not (DeFronzo 1983; Williams 1984; Corzine and Huff-Corzine 1992; Harer and Steffensmeier 1992; Phillips 1997; Bailey 1984; Jackson 1984; Loftin and Parker 1985; Messner and Golden 1992; Smith 1992; Chamlin and Cochran 1997; Kovandzic, Vieraitis, and Yeisley 1998). And a few studies report that the degree of support for the cultural model depends on racial characteristics (Huff-Corzine, Corzine, and Moore 1986; Parker and McCall 1997; Ousey 1999) and circumstances (see Parker 1989; Peterson and Krivo 1993; Parker and McCall 1997) of homicide offenders and/or victims.

Reconciling inconsistent findings

The preceding review reveals inconsistent findings on the Southern culture of violence thesis. In an assessment of this inconsistency, Williams and Flewelling (1988) point to two major methodological problems: (1) the failure to separate total homicide rates into conceptually meaningful subtypes; and (2) the inadequate measurement of violent cultural orientations. With regard to the first problem, they contend that the theoretical models featured in previous research (e.g., subculture of violence, economic deprivation) are more applicable to some subcategories of homicide than others. For instance, they note that "a violent cultural orientation is more likely to produce deaths that spring from heated arguments

among intimates than to produce serial killings, contract killings, or random sniper attacks" (Williams and Flewelling, p.422). On the other hand, because economic deprivation may intensify interpersonal conflict *and* reduce the availability of nonviolent methods of conflict resolution, they expect it to affect a wider range of homicide subtypes (e.g., conflict and nonconflict homicides).

In reference to the second problem (i.e., the inadequate measurement of violent cultural orientations), Williams and Flewelling propose that the "justifiable homicide ratio" (measured as the ratio of the number of justifiable homicides per 100 criminal homicides) is a better measure of violent cultural orientations than the region-based measures frequently used in previous research. They suggest that in cities with a stronger violence orientation, officials are more likely to interpret intentional killings as justified, giving such cities higher justifiable homicide ratios.

Consistent with their expectations, Williams and Flewelling (1988) find that economic deprivation (measured by the percentage poor) affects conflict and nonconflict homicides occurring between family members, acquaintances, and strangers. In addition, violent cultural orientations (measured by the justifiable homicide ratio) have greater effects on conflict than nonconflict homicide rates. However, in contrast to the predictions of the Southern culture of violence model, there is little evidence of regional differences in homicide rates. In total, these findings suggest that some of the contradictory findings from earlier research may be a product of inadequate conceptualization and measurement of homicide and its cultural antecedents. By disaggregating homicide into conceptually meaningful subcategories and using a more refined measure of violent cultural orientations, Williams and Flewelling find support for both culture of violence and economic deprivation explanations of homicide rates.

In another attempt at reconciling the findings from previous homicide research, Land, McCall, and Cohen (1990) posit that many contradictory findings are the result of high correlations among independent variables. To alleviate this problem, the authors create a series of scales that combine several highly correlated independent variables. They find that these scales have remarkably similar effects on city-, metropolitan area-, and State-level homicide rates at three different points in time (i.e., 1960, 1970, and 1980). More importantly, they report that net of economic deprivation variables, the South region variable has a significant association with city and metropolitan area homicide rates in 1960, 1970, and 1980 and with State-level homicide rates in 1960. Taken together, these results are strong evidence in support of the Southern culture of violence perspective.

Research on the generality and continuity of the Southern culture of violence

As the preceding review demonstrates, most previous studies on South/non-South differences in violence have examined only *homicide* rates. But McCall, Land, and Cohen (1992) extend this literature by exploring whether the southern culture of violence model can be generalized to explain robbery, assault, and rape. In addition, they test Brearley's (1932) prediction that South/non-South differences in violence will diminish over time. With regard to the former issue, they find that the effect of the South is not generalizable across all types of criminal violence, but is confined to homicide and assault. They interpret this as evidence that the cultural code of the South supports violence in defensive (e.g., defending one's honor when insulted), rather than offensive (e.g., stealing another person's jewelry), situations. On the latter issue, their results indicate that the South's influence on assault rates in cities and metropolitan areas has declined over time (see also Land, McCall, and Cohen 1990).

O'Carroll and Mercy (1989) also report evidence supporting the idea that the South effect on homicide rates is abating. Although they report that total homicide victimization rates are higher in the South, they also show that black and white homicide rates are higher in the West region. They attribute these paradoxical results to two factors. First, blacks have a much higher homicide rate than whites, regardless of region. Second, compared with the other regions, blacks comprise a much larger proportion of the South's total population. Thus, the combination of the high proportion of black residents in the South and their high homicide rates results in a *total* homicide rate in the South that exceeds the rate in the Northeast, Midwest, and West.

In a reexamination of O'Carroll and Mercy's (1989) findings, Nelsen, Corzine, and Huff-Corzine (1994) confirm that both black and white homicide death rates are higher in the West than the South. However, they find that when the influence of the percentage of Hispanics is taken into account, white homicide rates are highest in the South. Thus, although some studies suggest a diminishing impact of region on violence rates (McCall, Land, and Cohen 1992; O'Carroll and Mercy 1989), others (Nelsen, Corzine, and Huff-Corzine 1994) indicate that a culture of violence may still exist among *non-Hispanic whites* in the South.

Summary of findings from the regional crime literature

- Although not entirely consistent, there is evidence of a South region effect on some violent crimes. In particular, research suggests that compared with other regions, southern areas of the United States have higher primary and

conflict homicide rates and higher assault rates. On the other hand, rates of instrumental violence (e.g., robbery and felony homicides) are lower in the South than in other regions.

- The preponderance of the regional homicide studies suggests that economic deprivation is an important predictor of variation in homicide rates. Moreover, some studies indicate that the South's influence on homicide rates is entirely explained by regional variation in economic disadvantage. However, the evidence is inconsistent and many studies are plagued by conceptual and methodological shortcomings that make it difficult to estimate the independent effects of region and poverty on homicide rates.

- Regional homicide research that corrects for common methodological problems has generally found support for variables derived from *both* the economic deprivation and culture of violence explanations.

- The South's effect on homicide and assault rates appears to be diminishing over time, although the evidence is not completely consistent. Given the proliferation of interstate highways, inexpensive air travel, mass media, the Internet, satellite communications, and Rust Belt to Sun Belt migration, it seems reasonable to predict that South/non-South differences will continue to abate in the future.

- Although the aggregate-level research on regional differences is often presented as a test of the Southern *culture* of violence theory, no measures of culture actually appear in this literature. Thus, findings regarding the effects of culture on violent crime are inconclusive.

- Finally, given the contradictory findings and methodological limitations of previous research, the impact of culture on Southern homicide rates remains an open question for future researchers working in the macrosocial tradition. However, to avoid simply reiterating the inconsistent findings of past research, it is imperative that criminologists spend time developing reasonable proxies of violent cultural values.

Urban Variation in Serious Crime I: Cities and Metropolitan Areas

Trends in serious crime by size of place

Although the origin of the macrosocial view of crime is linked to interest in regional crime differences, the development of this perspective has expanded to encompass a concern with variation in crime rates across other geographic

units. In fact, in recent years, researchers have shown greater interest in explaining variation in crime rates across metropolitan areas and cities, rather than regions. Later in this section, I review the major studies that make up the core of this literature. However, to provide context, I first review trends in crime across urban places of varying size. As before, I use data from the Uniform Crime Reports and specifically focus my attention on trends in three forms of serious crime: homicide, robbery, and burglary.

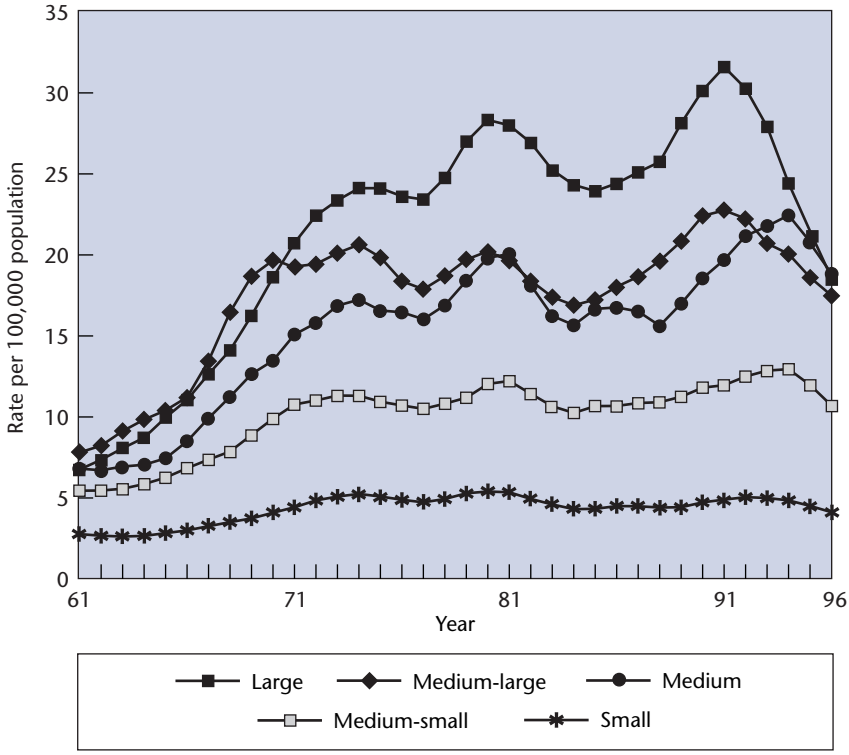
Exhibit 4 is a graph of the 3-year moving average homicide rates by five categories of city size for the 1961 to 1996 period.[2] For easier description of trends by city size, I label the city-size categories as follows: "large" is defined as cities of 1 million-plus population; "medium-large" is defined as cities with 500,000 to 999,999 persons; "medium" is defined as cities with 250,000 to 499,999 persons; "medium-small" is defined as cities with 100,000 to 249,999 persons; and "small" is defined as cities with fewer than 100,000 persons.

Overall, the trend lines are quite similar in shape. Across all categories, homicide was at its lowest point during the early 1960s. However, between 1962 and 1964, the beginning of an upward trend in lethal violence is observed across all groups of cities. This upward trend is quite substantial and lasts to the middle of the 1970s, when an initial peak in homicide rates is reached. Rates fluctuate slightly over the next couple of years, then reach a second peak around 1980. After this peak, homicide rates slide downward across all city-size categories until the mid- to late 1980s, when a final upsurge in homicide occurs. This final rise in homicide rates has been linked to the proliferation of crack cocaine markets in U.S. cities (Baumer 1994; Baumer et al. 1998; Blumstein 1995). For most of the city-size categories, this last upswing produces the highest homicide rate in the period studied. The one exception is found in small cities, where homicide rates peaked around 1980. After the peak of the early 1990s, homicide rates in all city-size categories begin a pronounced decline into the late 1990s.

Finally, while homicide rates have declined across cities of all sizes in the 1990s, the sharpest decreases in lethal violence are evident in large cities (–41 percent).

For most of the period examined, there appears to be a positive linear relationship between city size and homicide rates. That is, homicide rates are higher in larger cities. However, there are a few exceptions to this pattern. First, for most of the 1960s, the medium-large cities show homicide rates that are slightly above those in the largest cities. Moreover, at the very end of the period examined, homicide rates in medium and large cities are virtually identical, while the rates for medium-large cities are slightly lower.

Exhibit 4. Homicide rates by city size, 1961–96 (3-year moving average)



Source: U.S. Department of Justice, Federal Bureau of Investigation 1960–97.

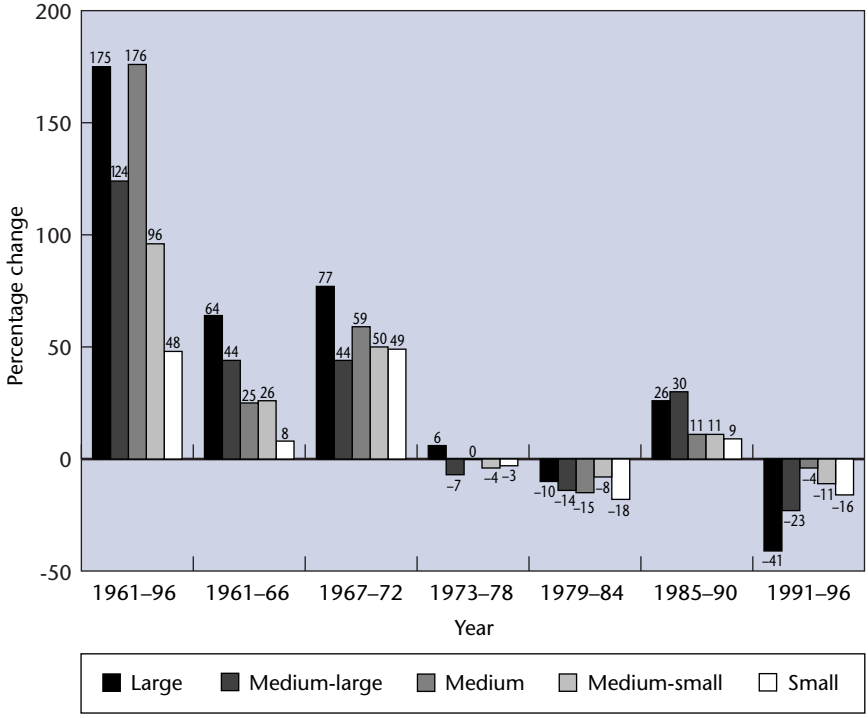
Through the early to mid-1970s, an upward trajectory in homicide rates is observed for all five city-size categories. However, the overall rate of increase during this period is greatest for the largest cities (see exhibit 5). For example, between 1967 and 1972, large U.S. cities experienced a 77-percent increase in homicide rates, while small cities experienced a substantial, but comparatively smaller, 49-percent increase. As a result of these differing rates of increase, there is a widening gap in homicide rates between large cities and those of all other size categories through the mid-1970s.

During the late 1970s, homicide rate trends were relatively flat across all city-size categories. Between 1979 and 1984, however, a general decline in homicide rates occurred. The largest rate of decline was observed in small (–18 percent)

and medium (–15 percent) cities. Following this brief period of decline, homicide rates for all categories rose between 1985 and 1990. Consistent with the view that the criminogenic effects of crack were most heavily concentrated in larger cities, the greatest rates of increase in homicide were observed in the two largest city-size categories. Nonetheless, the two smallest categories of urban places also exhibit a modest increase in homicide rates. Finally, while homicide rates have declined across cities of all sizes in the 1990s, the sharpest decreases in lethal violence are evident in large cities (–41 percent).

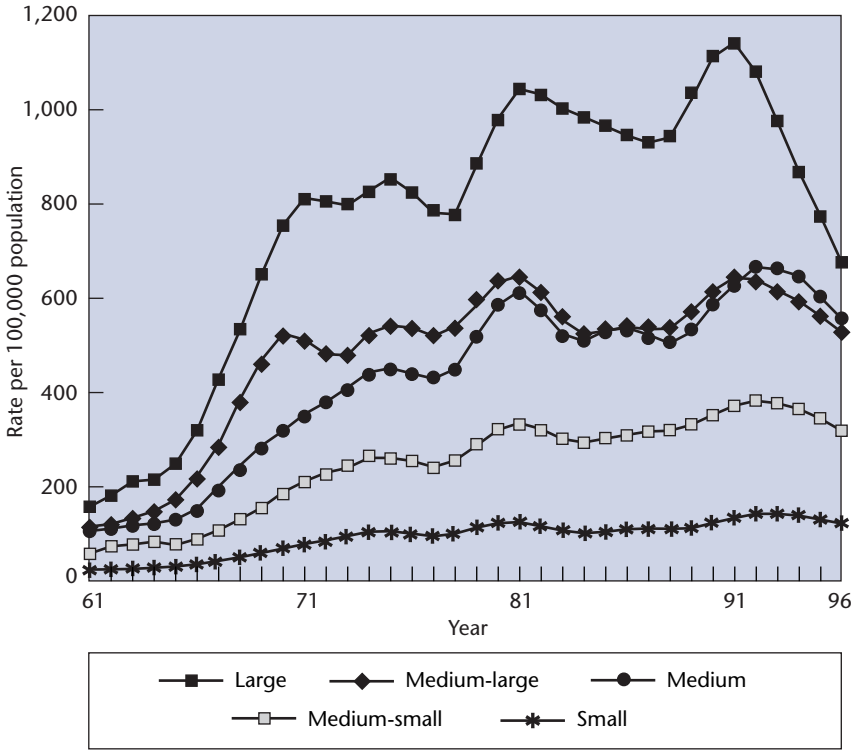
Trends in robbery rates by city size are presented in exhibit 6. For the most part, the patterns observed mirror the trends in homicide discussed previously. On the whole, robbery rates rose most rapidly during the late 1960s and early 1970s. After 1975, rates oscillated around a relatively high mean level. Also consistent with the trends for homicide, robbery rates appear to be positively associated with

Exhibit 5. Percentage change in 3-year average homicide rates, by city size, 1961–96



Source: U.S. Department of Justice, Federal Bureau of Investigation 1960–97.

Exhibit 6. Robbery rates by city size, 1961–96 (3-year moving average)

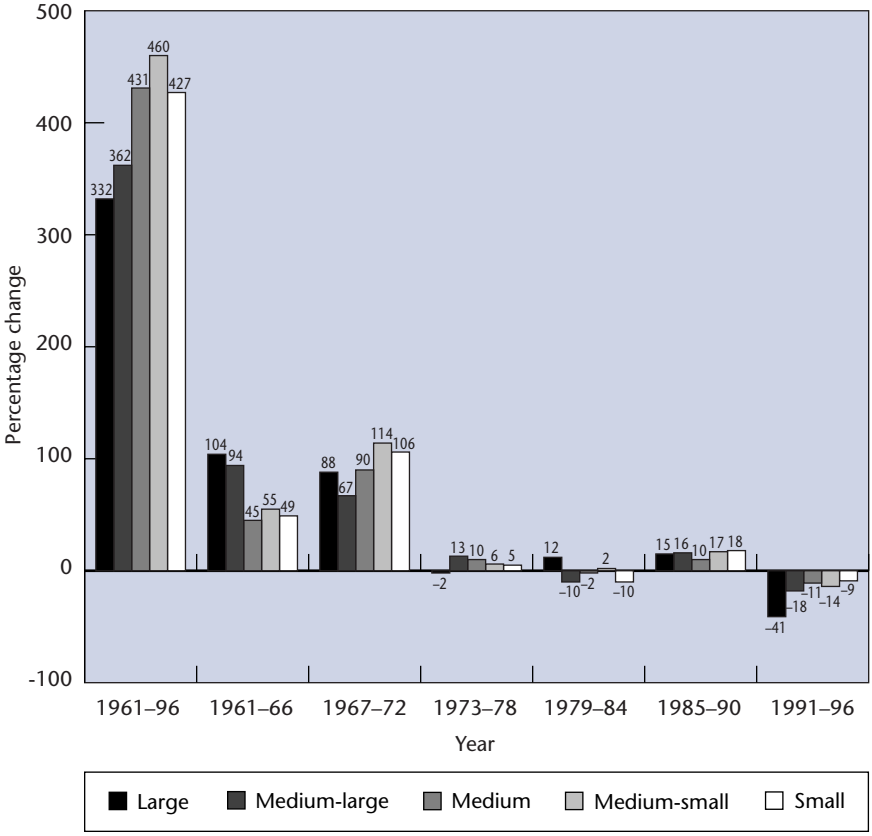


Source: U.S. Department of Justice, Federal Bureau of Investigation 1960–97.

city size. Throughout the period studied, robbery rates are highest in cities with at least 1 million persons and are lowest in cities with fewer than 100,000 persons.

The increase in robbery rates during the 1961–96 period is striking for all city-size categories. For instance, large cities, which show the least change, experienced a 332-percent increase in robbery rates. Moreover, robbery rates in medium-small cities increased nearly fivefold during this period. As with homicide rates, the majority of the increase in robbery rates occurred in the 1960s. Robbery rates then showed little fluctuation between 1973 and 1984, before showing a modest increase in the late 1980s when crack cocaine was introduced into U.S. cities. Finally, there is a trend of declining robbery rates in the 1990s across all city-size categories. Consistent with the data on homicide, the

Exhibit 7. Percentage change in 3-year average robbery rates, by city size, 1961–96

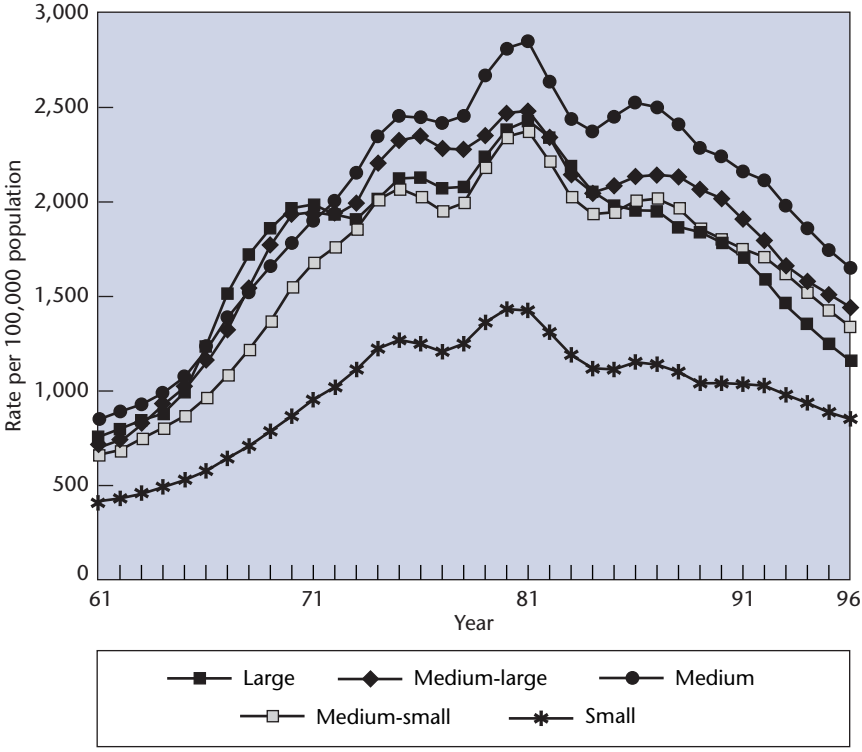


Source: U.S. Department of Justice, Federal Bureau of Investigation 1960–97.

sharpest rate of decrease in robbery rates is observed in the large city category (–41 percent).

Exhibit 8 shows trends in burglary rates by city size between 1961 and 1996. Compared with homicide and robbery, trends in burglary show a number of similarities. First, burglary rates follow a steep upward trend from the early 1960s to the middle 1970s. Second, following a brief decrease, burglary rates rise substantially at the end of the 1970s. In all five size categories, burglary rates peak in either 1980 or 1981. This peak corresponds to a peak in homicide and robbery rates around 1980.

Exhibit 8. Burglary rates by city size, 1961–96 (3-year moving average)

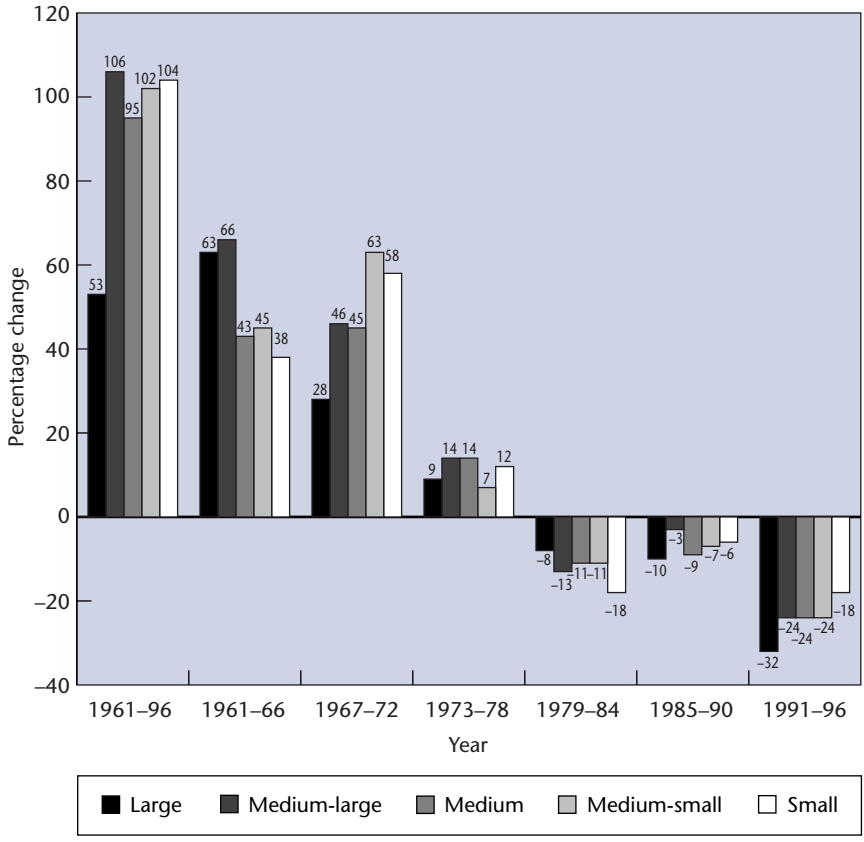


Source: U.S. Department of Justice, Federal Bureau of Investigation 1960–97.

Despite these similarities, burglary trends also exhibit a number of noteworthy differences from homicide and robbery trends. One difference is the relatively steady decline in burglary rates that occurs after a peak around 1980. A second feature that distinguishes the burglary rate trends from those for homicide and robbery is the ordering of the city-size category trend lines. While homicide and robbery rates are highest in the large cities, burglary rates are highest in medium-sized cities across most of the period studied. Moreover, in the 1990s, burglary rates in the large-city category are exceeded by those in the medium-small, medium, and medium-large categories. Thus, the apparent association between crime and city size that was observed in the homicide and robbery trend data does not appear to hold for burglary.

Exhibit 9 shows the percentage change in the 3-year average burglary rates for the 1961–96 period. Two divergent trends are clearly evident in this graph. The first trend is one of increasing burglary rates that culminates around 1980. The second is a consistent decrease in burglary rates in the post-1980 period. Although the percentage increases in burglary rates between 1961 and 1996 are generally smaller than those observed for robbery rates, they are still quite impressive. Indeed, in three of five city-size categories, burglary rates double during this period. Consistent with the homicide and robbery trends, most of this increase occurs in the 1960s. However, in contrast to homicide and robbery, burglary rates show a modest, but consistent, increase across all city-size

Exhibit 9. Percentage change in 3-year average burglary rates by city size, 1961–96



Source: U.S. Department of Justice, Federal Bureau of Investigation 1960–97.

The basic idea is that people evaluate their own economic position relative to others around them. And to the extent that individuals perceive that others have more desired resources than they do, a sense of deprivation, resentment, and anger develops. These feelings of deprivation are particularly severe if individuals feel the unequal distribution of resources is unjustified or if they feel powerless to improve their relative socioeconomic standing.

categories through the late 1980s. Finally, like the patterns observed for homicide and robbery rates, in the final period examined, the sharpest decline in burglary rates occurs for the large-city category.

To summarize, an analysis of trends in homicide, robbery, and burglary during the 1961 to 1996 period reveals several things. First, rates for all offenses have increased remarkably. Indeed, across most of the city-size categories examined, homicide, robbery, and burglary rates have more than doubled since the early 1960s. Second, the rate of increase is greatest for robbery (332 percent to 460 percent), followed by homicide (48 percent to 176 percent) and burglary (53 percent to 106 percent). Third, although the magnitude of the increase varies by offense type, timing is similar. In all three offense categories, most of the increase occurs prior to 1975. Since 1975, fluctuations in homicide, robbery, and burglary rates have been relatively modest. Finally, the greatest decrease in crime rates is observed in the 1990s, particularly in the large cities.

Explaining city and metropolitan area variation in serious crime

Serious crime is disproportionately concentrated in urban areas.[3] In fact, while roughly 75 percent of the U.S. population is classified as urban (U.S. Bureau of the Census 1991), more than 95 percent of all Index crimes reported to the police occur in cities and metropolitan areas (U.S. Department of Justice 1997). Thus, during the rapid increase in crime rates of the 1960s and 1970s, there was increasing pressure to study metropolitan area and city crime rates in an attempt to understand this major crime wave. Consequently, criminologists initiated a line of city and metropolitan research that quickly grew larger than the regional crime literature that had preceded it. And while cultural arguments have appeared in this literature, two classic structural frameworks have guided much of this research: *social stratification* and *social control*.

The social stratification perspective

The social stratification perspective asserts that crime is related to economic conditions. This view dates to antiquity and is evident in various sociological theories of crime. However, two variants of the social stratification perspective have dominated research on city and metropolitan area crime rates. The first, called the absolute deprivation model, emphasizes the crime-producing effects of earning an income that falls below a level necessary to maintain basic subsistence. This view suggests that crime is one of the primary sources of subsistence available to residents of poverty-stricken areas. In addition, the absolute deprivation model posits that the stressful and dehumanizing effects of a life of severe economic disadvantage produce frustration and anger that become expressed through physical aggression.

The second variant of the social stratification perspective, called the relative deprivation model, emphasizes the criminogenic aspects of socioeconomic inequality rather than absolute levels of poverty. The basic idea is that people evaluate their own economic position relative to others around them. And to the extent that individuals perceive that others have more desired resources than they do, a sense of deprivation, resentment, and anger develops. These feelings of deprivation are particularly severe if individuals feel the unequal distribution of resources is unjustified or if they feel powerless to improve their relative socioeconomic standing.

Research on the absolute deprivation model

The belief that poverty is related to crime is as old as the scientific study of crime itself. Yet this view remains as viable today as ever. In recent decades, a great deal of the interest in the impact of poverty on urban crime rates is attributable to controversial findings reported by Blau and Blau (1982) and Messner (1982). In separate analyses of the impact of poverty on criminal violence, they report evidence contradicting the expectations of the absolute deprivation model. In particular, the Blaus report that poverty has no association with several measures of violent crime, while Messner reports that homicide rates are actually lower in high-poverty areas. Because these findings oppose both a “common sense” understanding of crime and an extensive tradition in criminology, they generated considerable controversy and provided the motivation for a number of subsequent studies.

Most notable among subsequent studies are three (Williams 1984; Bailey 1984; Loftin and Parker 1985) that report that once methodological flaws in the Blaus' and in Messner's research are corrected, findings unequivocally support the predicted association between poverty and violent crime rates.[4] Despite the consistent findings of these three studies, however, other research estimating the impact of poverty on violent crime is inconclusive. A number of studies support the prediction that high poverty rates are associated with high violent crime rates (Messner 1983b; Sampson 1985; Balkwell 1990; Harer and Steffensmeier 1992; Fowles and Merva 1996; Ousey 1999), others report that the association depends on region (Messner 1983b; Blau and Golden 1986), race (Harer and Steffensmeier 1992; Messner and Golden 1992; Smith 1992; Ousey 1999), and type of violence (Blau and Golden 1986; Fowles and Merva 1996). Meanwhile, others report no significant association between poverty and several forms of criminal violence (Peterson and Bailey 1988; Corzine and Huff-Corzine 1992).

Research on the relative deprivation model

Total and racial inequality. Drawing on several works in the relative deprivation tradition (e.g., Bonger 1916; Merton 1938; Braithwaite 1979), Judith and Peter Blau (1982) posit that socioeconomic inequality, rather than poverty, is the primary economic correlate of criminal violence. Furthermore, they contend that inequality based on ascribed characteristics (e.g., race) holds the greatest violence potential because it violates the spirit of democracy and therefore creates resentment, anger, and aggression. Consistent with their hypotheses regarding the criminogenic effects of inequality, the Blaus report that two measures of income inequality (total and racial inequality) are better predictors of violent crime than poverty. Moreover, as expected, racial socioeconomic inequality has a stronger and more consistent association with measures of criminal violence than total income inequality. On the basis of these findings, the Blaus conclude that both general and ascriptive inequality (i.e., relative deprivation) promote criminal violence, but poverty (i.e., absolute deprivation) does not.

Following the Blaus, a number of researchers have examined the impact of inequality on criminal violence, with inconsistent results. While several studies generally support the expected association between total inequality and violent crime (e.g., see Peterson and Bailey 1988; Harer and Steffensmeier 1992; Fowles and Merva 1996; Kovandzic, Vieraitis, and Yeisley 1998), others do not (Messner 1982; Williams 1984; Balkwell 1990).

Research on the ascriptive inequality thesis shows similarly mixed results. Although several researchers report general (Blau and Golden 1986; Peterson and Bailey 1988; Balkwell 1990; Corzine and Huff-Corzine 1992; Messner and Golden 1992) or partial (Smith 1992) support for the notion that racial inequality engenders violent criminal activity, others report little or no support for this hypothesis (Sampson 1985; Messner and South 1986; Harer and Steffensmeier 1992; Phillips 1997; Parker and McCall 1997).

Balkwell (1990) suggests that inconsistent findings on the ascriptive inequality thesis may be due to two major shortcomings with the way racial (or ascriptive) inequality has been measured in previous research. First, he notes that previous researchers have calculated the degree of economic disparity between racial groups without accounting for the share of the total population that faces the disparity (i.e., the percentage of the population in the racial groups). Consequently, two communities that vary widely in the proportion of their population that is economically disadvantaged could receive the same racial inequality score. Second, previous measures of racial inequality only consider the disparity between whites and blacks. However, in a substantial number of large urban communities, whites and blacks are not the two largest racial groups. Moreover, in some parts of the country (e.g., the Southwest), the most prominent ethnic conflicts occur between Hispanics and whites of European ancestry. Thus, Balkwell suggests that to be consistent with the social-psychological theory underlying the ascriptive inequality-violence thesis, measures of racial inequality need to account for the relative size and economic standing of *all* racial groups in the community being studied. After developing a measure of "ethnic inequality" that addresses these shortcomings, Balkwell finds that this measure has a stronger association with the homicide rate than the frequently used white/black income ratio.

Finally, research by Messner and Golden (1992) suggests that previous contradictory evidence is partially attributable to overlap between traditional measures of racial inequality and other indicators of structural disadvantage (e.g., poverty). Consistent with their argument, Messner and Golden find that after deriving a racial inequality measure that is empirically distinct from other structural variables, analyses generally support the ascriptive inequality thesis.

Within-race inequality. Despite strong support from the studies by Balkwell (1990) and Messner and Golden (1992), the underlying logic of the Blaus' ascriptive inequality thesis is questioned by Harer and Steffensmeier (1992). Drawing on reference-group theory, which suggests that people are most likely to compare themselves with others with whom they share a particular characteristic (e.g., race), Harer and Steffensmeier posit that within-race income

inequality is more likely to produce feelings of resentment than between-race inequality. However, results from their analysis are only partially supportive of this hypothesis. While higher levels of white intraracial income inequality are associated with higher white violent crime rates, black intraracial income inequality is not associated with black violent crime rates. They report similar results in an analysis of the impact of total inequality on race-specific violence rates. Based on these findings, they conclude that the association between income inequality and violence is greater for whites than blacks.

Subsequent research examining the association between intraracial income inequality and race-specific homicide rates is inconsistent. Consistent with Harer and Steffensmeier, Ousey (1999) finds no significant association between intraracial income inequality and homicide among blacks. In contrast, Phillips (1997) reports that metropolitan areas with higher levels of black-to-black income inequality have higher black homicide rates.

Finally, recent research (Shihadeh and Steffensmeier 1994) suggests that *within-race inequality* may affect *black* homicide rates indirectly. In other words, an increase in black-to-black income inequality is associated with an increase in the percentage of single-parent families, which, in turn, is associated with a rise in black violent crime rates.

New avenues in social stratification-crime research

While the absolute versus relative deprivation debate continues, criminologists have also become interested in the impact on crime of other forces of social stratification. Following in the tradition of research on the urban underclass (e.g., see Wilson 1987; Massey and Denton 1993), some recent studies have examined the criminogenic consequences associated with suburbanization (Shihadeh and Ousey 1996), industrial restructuring (Shihadeh and Ousey 1998), and residential segregation (Peterson and Krivo 1993; Shihadeh and Flynn 1996; Shihadeh and Maume 1997).

Drawing on classic human ecological theory, Shihadeh and Ousey (1996, 1998) argue that economic disadvantage and rates of serious crime (especially among blacks) are due to two processes associated with metropolitan expansion and the shift to a post-industrial economy: suburbanization and industrial restructuring. Their city-level research suggests that the exodus of people and low-skill employment from inner-city communities has deleteriously affected the economic and social well-being of remaining residents. And as rates of poverty, joblessness, welfare dependence, and family breakdown have increased, there has been a corresponding increase in rates of serious crime.

Following Massey's (1990) work on the economic and social implications of residential segregation, several scholars (Peterson and Krivo 1993; Shihadeh and Flynn 1996; Shihadeh and Maume 1997) have extended the social stratification-crime literature by investigating the impact on crime of a noneconomic dimension of social stratification: residential segregation. Using city-level data, each of these studies provides evidence indicating that, net of economic variables, higher levels of residential segregation are associated with higher black homicide rates.

The social control tradition

Although the stratification approach has generally dominated research on metropolitan area and city differences in serious crime rates, a growing number of studies have applied a macrolevel social control perspective to the explanation of crime rates in large aggregate units (i.e., metropolitan areas and cities). In general, this perspective suggests that a breakdown of social integration within communities decreases informal social control and, therefore, increases the likelihood of crime. Although this perspective shares with the social stratification perspective the view that poverty is an important determinant of crime rates, it differs by emphasizing the primacy of noneconomic variables (e.g., family structure, population mobility, social heterogeneity) in the explanation of crime.

Macrolevel social control research in the 1970s largely consisted of research on deterrence theory (e.g., see Tittle and Rowe 1974; Geerken and Gove 1977; Greenberg, Kessler, and Logan 1979), which focuses on how the certainty, severity, and celerity of formal sanctions (i.e., prison sentences) affect crime rates. However, in the 1980s, researchers began to apply social control models in the social disorganization tradition to the explanation of city and metropolitan area crime rates. Rather than emphasizing official sanctions, these models emphasize variables that reflect informal social control within an area.

One of the early studies in this tradition is Crutchfield, Geerken, and Gove (1982). Following the logic of the social disorganization theory, these researchers argue that metropolitan areas with larger and more mobile populations will feature lower levels of social integration and, therefore, will have higher violent and property crime rates. Their results suggest that geographic mobility has a significant association with all violent crimes except robbery and all property crimes except auto theft. Moreover, consistent with the macrosocial control model, cities with larger populations tend to have higher assault, robbery, burglary, and auto theft rates. Finally, it is worth noting that

poverty has a significant association with two of the seven Index crimes (assault and burglary) only when the influence of social control variables are taken into account. On the basis of these findings, Crutchfield, Geerken, and Gove (1982) conclude that social integration has a powerful effect on crime rates, while the impact of blocked opportunity (e.g., poverty) is less powerful than previous studies suggested.

In an extension of the macrosocial control model, Sampson (1986) asserts that family disintegration is a major factor affecting informal social control and the rate of illicit behavior within communities. In communities where there is a low concentration of married-couple families, there is reduced participation in voluntary organizations (Sampson 1986; Bloom 1966), less informal guardianship of neighbors' property, and reduced supervision of local youths (Sampson 1986, 1987a). As a consequence, social cohesion and informal social control are weakened and crime becomes more probable. Sampson's analyses reveal that intact families reduce criminal offending. Indeed, both the divorce rate and the percentage of two-parent households generally have the expected effects on homicide and robbery rates. However, there are some exceptions. For example, cities with a greater proportion of two-parent households tend to have higher white adult homicide and robbery rates. Moreover, the divorce rate has no association with rates of black adult homicide and white juvenile robbery. Nonetheless, the weight of the evidence is consistent with the view that, net of economic variables, informal social control measures make substantial contributions to the explanation of variation in rates of violence in U.S. cities.

Phillips (1997) also presents evidence supporting a macrolevel social control model. Using data from large metropolitan areas, she examines whether variables drawn from stratification, social control, or rational choice perspectives are better predictors of variation in black homicide rates. Although support for each of the three perspectives is reported, she concludes that the variables measuring informal social control (population size, percent divorced or separated) have the strongest association with black homicide rates.

The previously cited studies suggest that macrolevel informal social control is an important predictor of crime, net of stratification variables. However, research by Sampson (1987a; see also Sampson and Wilson 1995) indicates that the nexus between social stratification, social control, and serious crime is more complex than these studies suggest. Drawing on Shaw and McKay (1942) and Wilson (1987), Sampson argues that concentrated economic disadvantage increases crime by decreasing the capacity for informal social control within communities. In support of this conceptualization, his analyses show

that an increase in black male joblessness corresponds with an increase in black female-headed households, which, in turn, is associated with higher rates of black homicide and robbery. Moreover, Sampson reports that family disruption has a greater effect on juvenile violence rates than adult rates. He interprets this as an indication that cities with few two-parent families exert less supervision and social control over juvenile peer groups. Finally, although Sampson's analysis is heavily focused on explaining urban violence among blacks, he presents evidence suggesting that the integrated stratification-social control model applies equally well to the explanation of urban violence among whites.

The majority of the evidence seems consistent with the view that poverty and racial inequality have significant effects on serious crime, particularly homicide. Findings for total and intraracial inequality are less conclusive.

In a similar study, Shihadeh and Steffensmeier (1994) extend Sampson's link between the social stratification and social control models by examining the association between within-race inequality, family disruption, and criminal violence rates among blacks. As expected, they find that black within-race income inequality contributes to black family instability, which is associated with rates of black homicide and robbery.

In addition to the cross-sectional studies previously cited, several longitudinal studies of the macrolevel social control model have been conducted at the city or metropolitan area levels. For example, Chamlin (1989) examines the association between the 1970 to 1980 change in social control variables (i.e., residential mobility, racial heterogeneity, family structure, etc.) on the 1970 to 1980 change in homicide and robbery rates in 109 U.S. cities. Consistent with the macrolevel social control model, he reports that change in residential mobility and poverty affect change in robbery rates, while change in city population size and economic inequality affect change in homicide rates. In contrast, change in family structure has no significant association with change in homicide or robbery rates. Overall, his findings offer general support for the social control model, but the degree of support varies by type of violent offense and measure of social control.

In another longitudinal study, Miethe, Hughes, and McDowall (1991) examine cross-sectional and longitudinal effects of variables reflecting social disorganization theory on homicide, robbery, and burglary rates. Using data from 584 cities in 1960, 1970, and 1980, they report inconsistent support for the social

disorganization model. In their cross-sectional analyses, ethnic heterogeneity, residential mobility, and institutional control have expected significant effects on measures of crime. However, results from the change analysis are less supportive. While ethnic heterogeneity has the expected effect on the change in homicide, robbery, and burglary rates, residential mobility and institutional control do not.

Finally, Miethe and Meier (1994) examine the effects of change in social control variables on the change in Index crime rates and report mixed support for the social control model. While the effects of median income, ethnic heterogeneity, and residential mobility vary by the type of offense, rates of all seven Index crimes are higher in cities and metropolitan areas with a lower percentage of two-parent families.

Summary of findings from the metropolitan area/city crime literature

- The debate between absolute and relative deprivation models has no clear winner. Measures of poverty, total inequality, racial inequality, and within-race inequality all have garnered some support in the literature. The majority of the evidence seems consistent with the view that poverty and racial inequality have significant effects on serious crime, particularly homicide. Findings for total and intraracial inequality are less conclusive.

- Evidence suggests that much of the inconsistency in findings may be due to particularly high correlations between poverty and total inequality (measured by the Gini coefficient), which complicates attempts to estimate their unique effects.

- Consistent with Wilson's (1987) notion of *concentration effects*, evidence suggests that the absolute and relative dimensions of deprivation have become less distinct over time.

- Due to difficulty separating the effects of absolute and relative deprivation, some researchers have chosen to combine them in general deprivation indexes. Although this strategy precludes determining the relative importance of two prominent criminological perspectives, it is pragmatic. Indeed, research that employs a deprivation index generally reveals consistent support for the social stratification model (Land, McCall, and Cohen 1990; Messner and Golden 1992).

- The social control model has received fairly strong support in cross-sectional studies of cities and metropolitan areas. In general, the most consistent support has been found for family structure variables (e.g., percentage divorced, female-headed households), but ethnic heterogeneity and residential mobility also have garnered support in various studies.
- Longitudinal studies are relatively uncommon, and compared with cross-sectional studies, provide less consistent support for social control variables.
- Social stratification and social control models are more appropriately conceptualized as complementary, rather than competing, explanations of crime. Several studies indicate that social stratification affects crime by reducing informal social control. That is, greater economic disadvantage (e.g., joblessness, inequality) decreases informal social control (e.g., two-parent households), which, in turn, increases crime.
- Recent work in the stratification tradition suggests that high crime rates may also be associated with noneconomic dimensions of social stratification (e.g., residential segregation).
- Fundamental changes in the demographic and industrial structure of urban areas (e.g., suburbanization and industrial restructuring) have contributed to high crime rates by increasing rates of economic disadvantage.
- Variables reflecting both social stratification and social control models appear to be better predictors of white than black crime rates (especially homicide). Given this relatively persistent finding, race-specific structural theories of crime may be warranted.

Urban Variation in Serious Crime II: Neighborhoods

Explaining neighborhood crime rates: Extensions of the social control model

Although the previous review reveals that the macrolevel social control perspective has been a useful explanation of variation in city and metropolitan area crime rates, the most important work in the macrolevel social control tradition has occurred in neighborhood-level studies and is linked with recent advances in social disorganization theory. The focus on social control variables in explaining neighborhood crime rates follows from the work of Shaw and McKay and their colleagues (e.g., Shaw, Zorbaugh, McKay, and Cottrell 1929;

Shaw and McKay 1942), who were interested in explaining crime rate differentiation between distinct geographic communities within the city of Chicago.

Building on the work of early Chicago School researchers (e.g., Thomas and Znaniecki 1920; Park, Burgess, and McKenzie 1925) who were concerned with the consequences of rapid immigration and industrialization occurring in Chicago in the early 20th century, Shaw and McKay (1942) observed that delinquency rates were highest in ghetto communities closest to the expanding industrial and business district and lowest in the communities farthest away from the industrial center. These areas, they noted, were the least attractive residential zones, were inhabited by recent immigrants, and featured high rates of poverty and population turnover. Based on their observations, Shaw and McKay surmised that natural growth processes associated with industrialization, urbanization, and immigration were responsible for the high crime rates observed in neighborhoods bordering the central business district. Although Shaw and McKay did not explicitly spell out the causal connection between social disorganization and crime, the most common interpretation of their model suggests that a decline in economic status increases both racial heterogeneity and population instability, which, in turn, increases rates of crime and delinquency.

A number of subsequent studies have tested aspects of the traditional Shaw and McKay model (e.g., see Lander 1954; Chilton 1964; Bursik and Webb 1982; Smith and Jarjoura 1988; Bursik and Grasmick 1993a; Warner and Pierce 1993), with generally supportive findings reported. Unfortunately, much of this literature has encountered difficulty when trying to specify the mechanisms that link structural conditions to crime. However, several recent pieces of scholarship (e.g., Sampson 1987b; Bursik 1988; Warner and Rountree 1997) have made significant advances in the social disorganization theory by integrating the disorganization model with the systemic model of community attachment (Kasarda and Janowitz 1974). By defining social disorganization as "the capacity of a neighborhood to regulate itself through formal and informal processes of social control" (Bursik 1988, 526), researchers have been better able to distinguish social disorganization from its causes (low economic status, ethnic heterogeneity, population mobility) and consequences (crime and delinquency) (Bursik 1988).

This systemic social disorganization model posits that the traditional ecological correlates noted by Shaw and McKay (economic disadvantage, racial heterogeneity, and residential instability) affect crime by weakening the informal (e.g., friendship ties) and formal (e.g., participation in local organizations) social networks that facilitate community self-regulation and are the foundation of community social capital (Coleman 1988).

Infrequent interaction may be indicative of "weak ties," which are important bridges between insular kin and friendship networks within the community.

Drawing on Hunter (1985), Bursik and Grasmick (1993b) contend that associational networks provide social control at three distinct levels: private, parochial, and public. At the *private level*, extensive friendship and kinship ties are necessary so that a threatened withdrawal of sentiment has a deterrent effect on the illicit behavior of neighborhood residents. Broad networks that connect nonintimate residents to each other and to local community institutions (e.g., schools, churches, private businesses) contribute to social control at the *parochial level*. Without the existence of such networks, community members are less likely to supervise community activities and intervene when community social order is threatened. Ties between community residents/institutions and extracommunity agencies are necessary for effective social control at the *public level.* Without connection to public-level agencies, a neighborhood is less likely to secure public goods and services that may aid in crime control (e.g., funds for neighborhood watch programs; extra police patrols).

Empirical research on the mediating role of networks or social ties has been rare until very recently. Primarily this is attributable to a lack of available data. Traditionally, census and other official data sources have been used in research examining social disorganization theory. And although these sources contain ample information on structural conditions, no information on social networks is available. Due to these data limitations, most research has essentially replicated the work of Shaw and McKay (1942). Nonetheless, some new insights, such as the discovery of interaction effects between ecological covariates (Warner and Pierce 1993; Taylor and Covington 1988), have been gleaned from this literature.

Fortunately, survey data that contain measures of social ties are increasingly becoming available. As a result, the body of research on the systemic social disorganization model is growing. Findings from early studies estimating the relationship between social networks/informal social control and delinquency are generally supportive, but not entirely so. Maccoby, Johnson, and Church (1958) find that delinquency rates are higher in neighborhoods where few residents know their neighbor's names and share common interests with them. Moreover, Kapsis (1976, 1978) reports that, compared with residents in medium- or high-delinquency areas, residents in low-delinquency communities are more likely to have friendship ties and contact with local institutions. In contrast, Greenberg, Rohe, and Williams (1982) report no significant differences in neighboring and informal control between three low-crime and three high-crime

Contrary to expectations derived from the systemic social disorganization perspective, Warner and Rountree find that social ties have dissimilar effects on assault rates across these neighborhood contexts. In fact, although higher scores on the social ties variable corresponds with lower assault rates in predominantly white neighborhoods, there is no association between social ties and assault rates in predominantly minority and mixed-race neighborhoods.

neighborhoods. However, Taylor, Gottfredson, and Brower (1984) and Simcha-Fagan and Schwartz (1986) report that crime/delinquency rates are lower in neighborhoods with higher levels of organizational participation.

Although not completely consistent, the previously mentioned studies generally support the expected link between informal social control and crime. However, these findings are based on very small samples, which limits generalizability. To remedy this shortcoming, Sampson and Groves (1989) use survey data from 238 communities in Great Britain to investigate whether indicators of systemic social organization (e.g., friendship ties, organizational participation, supervision of peer groups) mediate between community structure (i.e., socioeconomic composition, residential stability, racial/ethnic heterogeneity, and family structure) and crime. Consistent with the systemic social disorganization framework, they find that local friendship networks are higher in communities that are less urbanized and have greater residential stability. Moreover, supervision is higher in wealthier, less urban communities with a high proportion of two-parent families. Organizational participation is highest in high socioeconomic status (SES) communities.

With regard to expected relationships between systemic community organization and crime, Sampson and Groves report generally supportive findings. Strongest support is found for peer group supervision, which has a significant association with all of the crime measures used by Sampson and Groves. Moreover, although the impact of organizational participation and friendship ties vary by type of crime, each has a significant effect on at least one measure of property and personal crime.

Building on the social ties and crime literature, Bellair (1997) challenges the assumption that frequent forms of social interaction are the most important for social control for two reasons. First, infrequent interaction may signify the presence of an expansive network connecting neighborhood residents. Studies that focus solely on frequent interaction may therefore underestimate the extensiveness of community networks. Second, infrequent interaction may be indicative

of "weak ties," which are important bridges between insular kin and friendship networks within the community (e.g., see Granovetter 1974). Thus, social networks in communities with few, infrequent social interactions may lack closure, an important aspect of neighborhood organization and social control (see Coleman 1988 for a discussion of closure).

Using data from 60 urban neighborhoods, Bellair (1997) explores whether infrequent social interaction affects crime and whether social interaction mediates part of the oft-reported association between community structure and crime rates. He finds that measures that include *both* frequent and infrequent interactions are the best predictors of burglary, motor vehicle theft, and robbery. Moreover, social interaction mediates part of the impact of socioeconomic status, heterogeneity, and residential stability on crime. Bellair concludes that weak ties (i.e., infrequent social interaction) are a major form of neighborhood organization and make important contributions to the social control of crime.

Although the previously cited evidence suggests that social ties have a crime-reducing effect, Warner and Rountree (1997) question whether that effect is generalizable across neighborhood contexts. In particular, they investigate whether social ties have similar effects on assault rates in predominantly white, predominantly minority (Asian or black), or predominantly mixed-race neighborhoods in Seattle, Washington. Contrary to expectations derived from the systemic social disorganization perspective, they find that social ties have dissimilar effects on assault rates across these neighborhood contexts. In fact, although higher scores on the social ties variable corresponds with lower assault rates in predominantly white neighborhoods, there is no association between social ties and assault rates in predominantly minority and mixed-race neighborhoods. Based on these findings, Warner and Rountree conclude that the systemic social disorganization model may apply only in white middle-class communities.

The notion that social ties may not hinder crime in certain community contexts is evident in Pattillo's (1998) ethnographic study of a black middle-class neighborhood in Chicago. She finds that dense social networks are composed of both the leaders of legitimate establishments and the heads of criminal organizations involved in drug trafficking, money laundering, and other illicit activities. This integration of licit and illicit networks creates problems for crime control. Because many of the criminals described in Pattillo's study are longtime community residents who are highly integrated into the social fabric of the community, law-abiding residents are reluctant to report their illicit activities to the police. Therefore, criminal organizations in the community are given some latitude to operate, which increases their chance of success.

While Pattillo's research suggests that private- and parochial-level networks may actually facilitate criminality in certain instances, Rose and Clear (1998) contend that public-level social control (e.g., incarceration) may contribute to crime by reducing informal social control capacity within a community. Assuming that individuals who become incarcerated are making some positive contributions to the community, Rose and Clear suggest that incarceration has a number of negative outcomes. First, it fragments families and reduces capacity to supervise the activities of community youths. Second, to the extent that criminals hold legitimate employment, incarceration reduces the number of employed adults in the community. This has a short-term effect on the economic vitality of the community, and a long-term effect on the connection between community children and the legitimate labor market. Third, communities that experience the frequent incarceration of residents may develop a distrust and fear of the police and legal system, which fragments their connection to the public level of social control.

In addition to social ties, associational networks, and organizational participation, recent research points to two other concepts that mediate between ecological structure and crime. First, Skogan (1990) suggests that *disorder* mediates the effect of economic disadvantage, heterogeneity, and residential instability on crime. Disorder refers to the violation of norms regarding public behavior and includes activities such as public drinking and solicitation of prostitution as well as visual symbols of decay such as abandoned buildings, broken streetlights, and garbage-filled parking lots (Skogan 1990). In an analysis of robbery victimization in 30 neighborhoods, Skogan reports that the effects of poverty, instability, and racial composition on robbery are mediated by disorder. Moreover, Bursik and Grasmick (1993b) suggest that disorder may be an important mediator between the ecological correlates of social disorganization (e.g., poverty, residential instability) and measures of community attachment/informal social control. In other words, poverty, residential instability, and racial heterogeneity may increase disorder, which, in turn, leads to a reduction in social ties and institutional networks within a community. Although Skogan does not test this thesis directly, he does report that disorder has a significant effect on community attachment, as reflected by neighborhood satisfaction and intention to move.

Second, Sampson, Raudenbush, and Earls (1997) suggest that *collective efficacy* may mediate the effects of economic disadvantage, heterogeneity, and population instability on crime. Collective efficacy refers to the degree of "mutual trust . . . and willingness to intervene for the common good" within a community (Sampson, Raudenbush, and Earls 1997, 919). Sampson and colleagues report that concentrated economic disadvantage, immigration concentration, and residential stability explain a large share of neighborhood variation in collective efficacy. In turn, collective efficacy mediates a substantial part of

the effect of disadvantage and residential stability on measures of violence. Finally, they find that collective efficacy has an independent effect on crime when social ties, organizational participation, and neighborhood services are controlled. In fact, they report that collective efficacy has a stronger effect on crime than these other measures of informal social control.

Summary of findings from the neighborhood crime literature

- Research that examines predictions from the classic social disorganization model shows they are generally supportive. Poverty, residential instability, and heterogeneity are associated with higher crime rates in some previous neighborhood studies.
- The ecological correlates of social disorganization (i.e., low SES, residential instability, ethnic heterogeneity) appear to have multiplicative, rather than additive, effects on crime. In particular, research suggests that the impact of poverty on assault, robbery, and burglary is greatest in stable and homogeneous neighborhoods.
- The integration of social disorganization theory and the systemic model of community attachment represents a crucial step forward in the development of macrolevel social control theory.
- Although the body of research on the systemic social disorganization model is relatively small, it generally supports the expectation that social ties, organizational participation, and supervisory behavior reduce crime and delinquency.
- Contrary to common beliefs, infrequent social interactions between neighbors appear to be as important for crime control as frequent social interactions.
- Although social ties between neighborhood residents have been shown to have a general constraining effect on crime rates, recent evidence suggests that the constraining effect depends on the racial composition of neighborhoods. In predominantly white communities, social ties impede criminal activity, but in predominantly minority and mixed-race communities, social ties have no significant constraining effects on crime. Moreover, recent ethnographic research suggests that the existence of dense associational networks may actually facilitate criminal activities in certain neighborhood contexts.
- Recent theoretical work suggests that increases in incarceration may actually increase crime in the long run by disrupting informal social control mechanisms in the community. Although plausible, the empirical validity of this hypothesis has yet to be verified.

Discussion

Andre-Michel Guerry's (1833) *Essai sur la statistique morale de la France* was one of the earliest scientific studies of crime. In that work, Guerry concluded that crime rates varied across geographic units. My review of homicide, robbery, and burglary rates in the United States suggests that Guerry's conclusion remains relevant to contemporary America, as serious crime rates continue to show variation by region and size of urban place.

With regard to regional differences, the data indicate that homicide rates are highest in the South, followed by the West, Midwest, and Northeast. However, the South's position atop the regional homicide rankings has become more tenuous over time as homicide rates in the Western States have converged with those of the South over the past 40 years. Robbery rates also exhibit regional differences, but in contrast to homicide rates, the Northeast has the highest robbery rates while the South ranks near the bottom in robbery for most of the period examined. Burglary rates were highest in the West until the late 1980s, when Southern States overtook Western States.

Crime rates also vary by city size. For most of the period studied, homicide and robbery rates show a clear linear association with city size. That is, homicide and robbery rates are highest in large cities (i.e., cities of 1 million or more persons) and decrease with each corresponding step down the city-size continuum. In contrast, burglary rates show little clear pattern of association with city size. For example, burglary rates are highest in medium-sized cities and lowest in small cities.

The most prominent framework for explaining the observed geographic variation in crime is the macrosocial perspective. This general perspective is reflected in several theoretical traditions that attribute aggregate-level variation in crime to differences in culture, social stratification, and social control. The cultural approach has been most common in research on regional variation in homicide rates and is frequently considered a foil for social stratification approaches that argue that regional variation in homicide is due to regional differences in structural poverty. The social stratification tradition is most prominent in the metropolitan area and city literature in which researchers have actively debated the merits of two variants of the social stratification tradition, the absolute and relative deprivation models. Finally, the social control tradition is evident in the metropolitan area and city literature, but the most important classical and contemporary contributions in this area are at the neighborhood level. A summary of findings with regard to each of these theoretical perspectives is presented immediately following the detailed reviews of research previously presented.

Comparative research at multiple levels of analysis: Are findings consistent across units of analysis?

Although the preceding review reveals some support for each theoretical model, it is difficult to directly compare findings across studies framed at different levels of aggregation. Fortunately, however, there have been a small number of studies across multiple units of analysis. The most prominent of these is by Land, McCall, and Cohen (1990), who examine the effects on homicide of structural and "cultural" variables (e.g., resource deprivation, percentage divorced, region) at the State, metropolitan area, and city levels with data for 1970, 1980, and 1990. After reducing problems caused by high correlations between independent variables, they compute regression models at all three units of analysis within each decade. Similarities and differences in the South-region effect were discussed earlier in the paper. With regard to the effects of social stratification (e.g., a resource deprivation index) and social control (percentage divorced) variables, Land and colleagues report consistent findings across units. In fact, both the resource deprivation index and the percentage divorced have significant positive associations with homicide rates at the city, metropolitan area, and State levels in 1960, 1970, and 1980.

First, future research needs to explain the substantial decline in crime rates occurring throughout most of the 1990s. If social stratification and social control models best explain the crime increases of the 1960s and 1970s, do they also account for the crime declines observed in the 1990s?

In an extension of the previously mentioned research, McCall, Land, and Cohen (1992) examine the effects of the same set of predictors used in Land, McCall, and Cohen (1990) on rape, robbery, and aggravated assault rates across units of analysis and time. Although findings for these other dimensions of criminal violence are less uniform than those observed for homicide, they are impressive nonetheless. Remarkably, the percentage divorced has a significant positive association with rape, robbery, and assault rates at all three units of analysis in each decade. Meanwhile, resource deprivation has a significant positive effect in seven of the nine equations estimated for each violent crime type. In general, the least support for a resource deprivation effect on violence is found at the State level.

These two studies provide rather compelling evidence in support of the generalizability of stratification and social control effects across units of analysis and time. Based on these findings, it is tempting to conclude that choice of unit of

analysis (especially between metropolitan area and city) has little impact on substantive findings regarding the effects of structural variables on crime. However, recent research by Miethe and Meier (1994) suggests that such a conclusion is premature. They estimate the effects of stratification (e.g., family income) and social disorganization (e.g., heterogeneity, mobility, intact families) theory variables on each of the Index crimes at the metropolitan area, city, and census tract levels and report greater divergence than is found by Land and colleagues. In none of the instances is there a similar significant effect of the stratification or social disorganization variables on crime across all three units of analysis.[5] Given these results, it is evident that although some convergence in findings across units of analysis is indicated, more research is needed before definite conclusions can be reached.

Directions for future research

Given limitations on time and space, the research reviewed in this chapter is confined to a few prominent lines of inquiry on regional and urban variations in crime. Nevertheless, there are many avenues that may be pursued in future research. First, future research needs to explain the substantial decline in crime rates occurring throughout most of the 1990s. If social stratification and social control models best explain the crime increases of the 1960s and 1970s, do they also account for the crime declines observed in the 1990s? At first glance, the evidence is not overwhelmingly supportive. Although some evidence suggests that the economy is currently strong, indicators of poverty and income inequality have not shown the same monotonic downward trend that would match recent decreases in crime rates. Moreover, rates of single parenthood have generally increased in recent years. Thus, on the surface at least, the link between social stratification and informal social control variables and recent drops in serious crime appears tenuous. However, to adequately answer this question, systematic study is required.

Second, the preceding review reveals that there have been relatively few longitudinal studies that examine the impact of cultural and structural variables on regional and urban variation in crime. However, with the coming availability of the 2000 census data, the opportunity for panel studies that span five decades or more will become a reality. Analyses that utilize these data with a longitudinal research design will be helpful in determining whether change in ecological structure affects change in crime, an issue that is central to many versions of macrolevel social control theory. Moreover, as the research by Land, McCall, and Cohen (1990) illustrates, studies that make use of multiple "waves" of data to examine the stability of structural and cultural effects over time and space are useful for reconciling inconsistent findings, detecting "period effects," and providing more robust tests of theory.

Third, the increasing availability of time-series, panel, and multilevel data, along with recent developments in multilevel and growth-curve methodology, presents macrolevel researchers with many exciting opportunities. For example, it provides the opportunity to explore how between-city differences in stratification and social control variables are related to city crime trajectories (e.g., see Baumer et al. 1998). It also allows the possibility of investigating whether the effects of neighborhood-level economic conditions (e.g., poverty, inequality, joblessness) on crime depend on the broader economic context of cities or urban areas (e.g., a city in industrial decline or a postindustrial, high-tech service city).

Fourth, the increasing availability of international data will enable researchers to examine whether structural conditions have similar effects on subnational crime rates in other industrialized nations (e.g., Japan, Germany, Australia). Results from these studies will either support the generalizability of social stratification and social control models or suggest directions for future research.

Fifth, although research in the criminal opportunity/routine activities/lifestyles tradition was not reviewed in this chapter, recent research (e.g., Miethe and Meier 1994) suggests that theories of social stratification, social control, and opportunity complement each other and together provide a more comprehensive explanation of crime than any of these three perspectives do alone. Additional work that explores whether or not these three perspectives have interactive effects on aggregate-level crime rates would further add to our knowledge about how structural variables affect regional and urban variation in crime.

Sixth, building on the research strategies of Land, McCall, and Cohen (1990) and Miethe and Meier (1994), future research should directly compare the applicability of structural models for explaining crime rates in aggregate units across the urban-rural continuum. For example, although some authors have analyzed crime rates across suburban (e.g., see Liska, Logan, and Bellair 1998) and rural areas (for a review, see Weisheit and Donnermeyer in this volume), few studies have directly compared findings across various units along the urban-rural continuum.

Seventh, additional research on variation in race- and gender-specific crime rates in aggregate units is needed. As race-disaggregated research has shown, structural models do not apply equally well for all race groups (see Harer and Steffensmeier 1992; Smith 1992; Ousey 1999). Thus, researchers should investigate reasons for racial variability in effects. Ousey (1999) speculates that perhaps cultural differences account for the weaker effects of structure on homicide, but provides no empirical evidence in support of this speculation. Is institutional racism a contributing factor? If so, how do we measure it with aggregate data?

Finally, additional research on regional differences in crimes other than homicide is needed. For example, why has the Northeast had the highest robbery rates since the mid-1960s? Is there a culture of robbery in the Northeast? Or is there something unique in the ecological structure of northeastern cities that leads to higher robbery rates? These issues are important but have been largely ignored in previous macrolevel research on regional crime differences.

Notes

1. Data from the entire 1960–97 period are used to compute all graphs. However, for clarity of presentation, 3-year moving average rates are used in the graphs of homicide, robbery, and burglary trend lines. Consequently, the first (1960) and last (1997) data points are "lost" in the averaging method.

2. Aggregate data on cities by size category were taken directly from annual published volumes of the FBI's *Crime in the United States*. The FBI classifies cities into each category on an annual basis based on U.S. Bureau of the Census population estimates.

3. The term "serious crime," as used here, refers to the seven Index crimes (homicide, robbery, rape, assault, burglary, larceny-theft, auto-theft) that constitute the total Crime Index reported by the FBI.

4. Bailey (1984) argues that Messner's anomalous findings are a product of using aggregate units (SMSAs) that ignore theoretically relevant variations in crime and its macrosocial correlates. He advocates the use of less diverse aggregate units and uses cities in his own analysis. Williams (1984) criticizes the Blaus and Messner for incorrectly specifying the relationship between poverty and homicide as linear. He argues that poverty and homicide have a nonlinear relationship, which he specifies by taking the log (base 10) of both variables. Loftin and Parker (1985) suggest that measurement error in the operationalization of poverty biases the estimate of the poverty effect in the research by the Blaus and Messner. To eliminate this problem, they employ an instrumental variable estimator using the infant mortality rate as the instrument for poverty. Unlike poverty, this instrument is uncorrelated with the disturbance term in their regression equation. Therefore, the instrumental variable estimator yields more consistent estimates than the ordinary least squares regression models specified by the Blaus and Messner.

5. No measure of residential mobility is included in their metropolitan area regression models. Thus, comparison of effects for this variable across all three levels is not possible. For three of the seven Index crimes, residential mobility has a significant positive effect on the dependent variable at both the city and census tract levels.

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