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## Social Disorganization, Drug Market Activity, and Neighborhood Violent Crime

**Ramiro Martínez Jr,**  
Florida International University, Miami

**Richard Rosenfeld,** and  
University of Missouri-St. Louis

**Dennis Mares**  
Southern Illinois University-Edwardsville

### Abstract

Although illicit drug activity occurs within local communities, past quantitative research on drug markets and violent crime in the United States has been conducted mainly at the city level. The authors use neighborhood-level data from the city of Miami to test hypotheses regarding the effect of drug activity and traditional indicators of social disorganization on rates of aggravated assault and robbery. The results show that drug activity has robust effects on violent crime that are independent of other disorganization indicators. The authors also find that drug activity is concentrated in neighborhoods with low rates of immigration, less linguistic isolation and ethnic heterogeneity, and where nondrug accidental deaths are prevalent. The authors find no independent effect of neighborhood racial composition on drug activity or violent crime. The results suggest that future neighborhood-level research on social disorganization and violent crime should devote explicit attention to the disorganizing and violence-producing effects of illicit drug activity.

### Keywords

aggravated assault; robbery; drug markets; social disorganization

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Drug-related violent crime soared in the United States during the late 1980s and early 1990s, accompanying the rise of the urban crack markets (Baumer et al. 1998; Blumstein 1995; Blumstein and Rosenfeld 1999). As the crack markets waned during the 1990s, levels of violence also subsided (Blumstein and Rosenfeld 1999; Ousey and Lee 2002). But illegal drug use and drug trafficking continue to flourish and fuel violent crime in many cities, including the setting of the present research, Miami, Florida. Unfortunately, few systematic assessments exist of the neighborhood conditions that shape the distribution of illegal drug activity in U.S. cities or the impact of drug activity on violent crime. The present research begins to fill that research void by examining the relationships among indicators of neighborhood social organization, illegal drug activity, and aggravated assault and robbery rates in the city of Miami.

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Direct correspondence to Ramiro Martinez Jr., Professor of Criminal Justice and Public Health, Florida International University, School of Policy and Management, Florida International University, University Park, ECS 431, Miami, FL 33199, 305/348-5795 (B), 305/348-5848 FAX, martinra@fiu.edu.

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Systematic empirical investigations of the drugs-violence connection have occurred at the national and city level, but rarely at the neighborhood level where the relationship between street-level drug activity and violence is manifested. Prior city-level research has shown that drug activity, typically measured with data on drug arrests, is a significant determinant of variation in violent crime, controlling for other between-city differences (Baumer et al. 1998; Ousey and Augustine 2001). But cities are heterogeneous social units, and the variation in levels of both violent crime and drug activity is almost certainly far greater within than between cities. It cannot be assumed that findings on the drugs-crime relationship at the city level also hold at the neighborhood level. Most neighborhood-level research on the drugs-violence connection is in the form of qualitative case studies of selected communities (Johnson, Gollub, and Dunlap 2000; for a recent exception, see Warner and Coomer 2003). Although rich with insights about the effects of drug activity on individuals, families, and entire community areas, this research by design cannot explain the relationship between drug activity and violence across areas.

The present study investigates the relationship between drug activity and violent crime across Miami neighborhoods. The authors' general research objectives are to determine whether the same conditions of social disorganization that explain the distribution of violent crime across neighborhoods also explain the distribution of drug activity, and whether the concentration of drug activity in particular areas increases violent crime rates apart from the effects of other determinants. The authors' analysis extends previous neighborhood-level studies by systematically linking drug activity to theoretically derived indicators of the multiple dimensions of social disorganization: residential instability, population heterogeneity, and socioeconomic deprivation. Second, the authors extend research on the drugs-violence connection beyond homicide, a rare event even in highly violent communities, to the more numerous offenses of aggravated assault and robbery. The authors also employ an indicator of "drug activity," drug overdose deaths, which is independent of violent crime and reduces the measurement error associated with using drug arrests to measure drug activity. The analyses are conducted with census tract-level data from a large, multiethnic city long considered almost a model of the conditions conducive to high levels of drug-related violence in the United States (Inciardi, Horowitz, and Pottieger 1993).

## Background

Early in the last century, Thomas and Znaniecki (1918–1920) and Edith Abbott (1936, 72–169) highlighted the significant growth of Chicago immigrant neighborhoods. These areas were identified by their less desirable characteristics (closeness to industrial areas, proliferation of tenement housing, higher levels of crime, fewer economic resources), as well as their large concentrations of newly arrived European immigrants and southern Black migrants (Logan, Alba, and Zhang, 2002). As immigrants moved up in economic status, they often moved out of these neighborhoods located in the "zone in transition," so-named because of the disorganizing social processes at work there (Shaw and McKay [1942]1969).

Many of the early Chicago studies directed attention to criminal activity, infectious diseases, mortality, and other social problems. Illegal drug use and trafficking activities were also linked to the socially disorganized sections of the city (see Burgess and Bogue 1964). Bingham Dai's ([1935]1970) study of 2,518 opium addicts from 1928 to 1934 in Chicago was one of the first ecological investigations of drug users as a distinct subpopulation. The Dai study discovered that communities with high rates of opium addicts, measured by place of residence and places they frequented, were either in or around the central business district. Moreover, the areas with low rates of addiction were near the outskirts of the city, and rates of addiction decreased with distance from the downtown area. Thus, the ecological distribution of drug addicts was similar to that of other social problems. Like delinquency rates, drug abuse rates were concentrated in

areas characterized by the three main dimensions of social disorganization identified by Shaw and McKay ([1942]1969): socioeconomic deprivation, residential instability, and population heterogeneity.

The characteristics of urban neighborhoods have changed since the seminal work of the founders of the Chicago School of sociology studied urban crime, but the generic processes of social disorganization continue to frame contemporary explanations of the social ecology of crime (Bursik and Grasmick 1993). The loss of blue-collar manufacturing jobs associated with deindustrialization during the post–World War II period increased structural joblessness among urban residents with low educational attainment. Chronic joblessness, in turn, contributed to growing poverty concentration and single-parent households (Wilson 1987). The urban poor became increasingly isolated in older neighborhoods as middle- and stable working-class residents departed for other areas of the city or the suburbs. The arrival of the crack epidemic in the 1980s offered employment opportunities for young, inner-city males who lacked legitimate alternatives. Drug dealing is risky work, and with the expansion of the illicit drug markets came a sharp upturn in criminal violence in U.S. cities during the late 1980s and 1990s (Blumstein 1995; Inciardi, Horowitz, and Pottieger 1993).

Several questions emerge from this now familiar story of concentrated disadvantage, drug markets, and violence. The first is whether the same neighborhood characteristics that are associated with elevated levels of violent crime also explain the location of urban drug markets. Are drug markets also a product of social disorganization? The early Chicago School researchers, as one has seen, believed that the same neighborhood conditions that produced predatory crime and delinquency also produced drug addiction. More recent research suggests that open-air or street-corner drug dealing takes hold in those urban neighborhoods least able to keep them out: impoverished, socially isolated, and unstable inner-city areas that also are characterized by high levels of violent crime (Anderson 1990, 1999; Currie 1993; Jacobs 1999; Sullivan 1989).

If drug activity and violent crime coexist in the same communities, a second question is whether drug activity stimulates violence beyond the already high levels found in areas of concentrated disadvantage. Do drug markets, drug use, or their combination produce *more* violence? The answer from quantitative investigations at the city level is that the association between drug activity and violent crime remains after controlling for other determinants such as poverty, unemployment, and family disruption (Baumer 1994; Baumer et al. 1998; Ousey and Lee 2002). Qualitative researchers also report that areas in which drug markets flourish are especially violent. The reasons may be because street robbers are lured to the area by the prospect of finding victims carrying large quantities of cash or drugs, because sellers compete over territory and buyers and sellers argue over price and purity without recourse to nonviolent dispute resolution mechanisms, because users commit crime to obtain money for drugs, or because users—crack users in particular—are vulnerable crime targets or prone to violent outbursts (Anderson 1999, 107–41; Goldstein 1989; Inciardi, Horowitz, and Pottieger 1993, 104–9; Jacobs 1999).

Recent research and theoretical developments in the social disorganization tradition imply that drug markets may be a potent *mechanism* by which disorganizing social conditions are manifested in high rates of violent crime. Elaboration of the Chicago School’s classical theory of disorganization into the “systemic model” of disorganization and community social control (Bursik and Grasmick 1993) suggests that deprivation, instability, and heterogeneity produce crime by impeding the effectiveness of so-called private, parochial, and public social controls. Drug markets may diminish private controls by keeping neighborhood residents off the streets and making them wary of strangers. They may attenuate parochial controls by forcing local businesses to close or retreat behind heavily guarded barriers and public controls by reducing

residents' cooperation with the police and dissuading city officials and private interests from investing in the area. Accumulating evidence suggests that multiple forms of social control are affected by conditions of social disorganization (e.g., Sampson and Groves 1989; Sampson, Raudenbush, and Earls 1997; Velez 2001), but whether drug-market activity links deprivation, instability, and heterogeneity to neighborhood violent crime remains unknown.

The contribution of drug-market activity to violence should not be overstated. Zimring and Hawkins (1997) point out that European drug markets do not display the violence associated with drug markets in the United States. And Currie (1993, 112) observes:

... the fact that drug dealing is typically only *one* aspect of a much broader culture of violence, exploitation, and consumerism suggests that curtailing the drug trade itself ... would not necessarily reduce the violence that now consumes inner-city youth as much as we might hope. ...

The degree to which drug markets increase the level of violence already found in the neighborhoods where the markets typically are situated remains uncertain.

An additional question arising from recent discussions of the interconnection of illicit drug markets and criminal violence concerns the role of race. African-American communities exhibit higher levels of violence *and* are more likely to contain drug markets than other areas in large U.S. cities. Several analysts have suggested that the spatial relationship between the residential location of African-Americans and violent crime is largely spurious, a product of the extreme social and economic disadvantage of the Black urban underclass (see Short 1997, 60). Krivo and Peterson (1996, 643) conclude from their study of the effects of social and economic disadvantage on the difference in levels of violent crime between predominantly White and Black neighborhoods in Columbus, Ohio: "Black urban neighborhoods do exhibit much higher crime rates than the typical White city neighborhood but this is largely because they are structurally more disadvantaged." The authors examine the spuriousness hypothesis in their analysis. They also investigate the related possibility prompted by recent research on the disproportionate involvement of young Black men in street-level drug sales that drug markets mediate the relationship between community racial composition and violent crime rates.

A final question emerges from recent research on crime in the social disorganization tradition: the likely effects of "population heterogeneity" on crime rates. The early Chicago School sociologists believed that the amalgamation of distinct immigrant groups within the same community areas would weaken local social control because of communication barriers and mistrust brought about by language and other cultural differences (Shaw and McKay [1942] 1968). However true that may have been a century ago, current research on immigration and crime consistently finds either no relationship or a negative relationship between the concentration of immigrants in urban areas and community crime rates (Lee, Martinez, and Rosenfeld 2001; Martinez 2002; Martinez, Lee, and Nielson 2004; Sampson, Morenoff, and Raudenbush 2005). Based on the more recent studies, the authors expect to find either no relationship or a negative relationship between violent crime and immigrant concentration and others indicators of population heterogeneity in Miami. The effect of population heterogeneity on drug market activity remains uncertain.

This discussion generates four hypotheses for the study's analysis of the relationship between drug markets and violent crime:

*Hypothesis 1:* The greater the level of social disorganization in an area—manifested in high rates of socioeconomic deprivation and residential instability—the greater the level of drug activity and the higher the rate of violent crime.

*Hypothesis 2:* Holding constant the level of deprivation and instability, the degree of population heterogeneity should have no relationship or a negative relationship with violent crime.

*Hypothesis 3:* The greater the level of drug activity in an area, the higher the rate of violent crime, controlling for other determinants of violent crime.

*Hypothesis 4:* The greater the proportion of Black residents in an area, the greater the level of drug activity and, in turn, the higher the rate of violent crime.

The authors investigate these hypotheses at the census tract level in the city of Miami, Florida, a high-crime, high-poverty city ideally situated for studying the impact of drug market activity on violent crime.

## Research Setting

Miami is a major international tourist destination and center of global commerce, including illegal drug trafficking, which has been facilitated to a large extent by its close proximity to drug-producing nations. The city has an active street drug trade that is concentrated in areas where much of the city's African-American population resides in the downtown or northern sector of the city.<sup>1</sup> A bustling open-air drug market once dominated the "Avenue," NW 17th Avenue, a street marking the western edge of the Liberty Square area. Dunn (1997, 336) notes that the crack cocaine epidemic hit Black communities hard in the 1980s and hastened the destruction of many older Black neighborhoods. The increase in crime and violence, especially after the 1980 riot, forced many businesses and their customers to move. The area did not quickly recover after taking these hits.

Miami's diverse Latino population lives in areas of the city quite unlike the devastated neighborhoods in which most of the Black population resides. Latinos make up 63% of Miami's population, and just over one-half of the Latino population is of Cuban origin. Well over one-half of Miami's population is foreign-born. Although one-quarter of Miami's Latinos has incomes below the poverty line, Latino communities in the city are relatively vibrant. Small businesses (restaurants, bodegas, money wire services, cigar shops, fruiterias, and herbal stores) serving tourists and the local immigrant community are concentrated throughout the neighborhoods of Little Havana, Latin Quarter, Wynwood, and Allapattah.<sup>2</sup>

These observations offer descriptive context for census-based indicators of "disorganization," including those used in the multivariate analyses reported in this article. They also suggest that drug-market activity is part and parcel of highly isolated and disadvantaged urban areas, but also may contribute to further disorder and decline. The authors assess the impact of drug markets on violent crime in Miami neighborhoods in the quantitative analyses to follow.

## Data and Method

The data for the authors' analysis of the impact of drug market activity on violent crime are from the Miami Police Department (MPD), the Miami-Dade Medical Examiner's Office (ME), and the U.S. Bureau of the Census. The authors obtained MPD reports for aggravated assault and robbery for the years 2000 through 2004 and created annual average rates per 1,000 population of aggravated assault and robbery.<sup>3</sup> Data compiled from the 2000 Census was used

<sup>1</sup>Unless noted otherwise, the following description is based on the lead author's direct observations made over a ten-year period involving numerous explorations of Miami's neighborhoods to determine the extent to which local conditions matched information provided by Census statistics, especially with regard to viability of business districts, presence of vacant buildings, and condition of the housing stock.

<sup>2</sup>The remainder of Miami's population consists of persons of other races, primarily middleclass and affluent non-Latino Whites who reside in the city's Coconut Grove and Upper East Side neighborhoods.

to form multi-item indicators of the three dimensions of social disorganization: socioeconomic deprivation, residential instability, and population heterogeneity. Socioeconomic deprivation is indexed with data on the poverty rate, percentage of families with female heads and children under the age of 18, and the unemployment rate. Residential instability is measured with four items: the percentage of housing units that are renter-occupied, percentage of units that are vacant, percentage of persons who have moved within the past five years, and the percentage of males between the ages of 18 and 24. The authors measure population heterogeneity as a combination of the Latino percentage of the population, percentage of the population who immigrated within the past 10 years, and the percentage of households that are “linguistically isolated.”<sup>4</sup> An additive index was created from each set of equally weighted component items, and each index yields an acceptable degree of reliability (see the appendix for variable definitions, descriptive statistics, and the reliability score for each index).

The authors gathered accidental death data, drug and nondrug alike, directly from files stored in the ME office. These internal data files have been consistently coded into five categories since 1956: homicide, suicide, accidental death, natural, motor vehicle-related deaths. The authors read and coded narratives describing each accidental death, paid close attention to those caused by drug use or drug toxicity, noted the legal status of the drug, and read the circumstances surrounding each death (for similar coding procedures, see Galea et al. 2003).

ME data on overdose deaths from illegal drugs for the period 1995 through 2002 was used as the measure of drug market activity (overdose deaths per 1,000 population). Because the overdose deaths are coded according to the victim’s residence, this measure is a valid indicator of the spatial distribution of drug market activity to the degree that victims tend to reside in the areas in which they obtain their drugs. Although the location of drug acquisition is unknown, the address at which the death occurred is recorded separately from the victim’s home address in the ME reports. In nearly all instances, the overdose victim died at or near his or her home ( $r = .875$ ).

Cocaine and heroin are by far the most prevalent drugs listed in the ME reports of overdose deaths. Cocaine was implicated in 43.3% of the overdose deaths, and heroin (including opiates and morphine) was implicated in 47.2% of the deaths. Other drugs appearing in overdose victims’ systems with some frequency include ethanol (25.2%), oxycodone (7.7%), and alprazolam or generic Xanax (6.1%).<sup>5</sup> Some of the latter substances may have been purchased on the street and others obtained through fraudulent prescriptions. Nonetheless, the overdose measure is dominated by “hard” street drugs, which enhances its validity as a measure of drug market activity.

Although imperfect as a measure of drug markets, this measure is arguably more valid than one based on drug arrests, which is likely to be subject to endogeneity bias. Some research has shown that drug arrests are a reliable measure of drug activity, based on the strong correlations between drug arrest rates and measures of urine tests of arrestees, emergency admissions for drug overdose, drug overdose deaths, and observations of street-level drug activity (Rosenfeld and Decker 1999; Warner and Coomer 2003). It is reasonable to assume, however, that the police patrol urban neighborhoods with high levels of violent crime more heavily than other areas, resulting in elevated rates of drug arrests in more violent neighborhoods. Moreover, a

<sup>3</sup>This study’s measure of robbery excludes commercial robberies. Because of the rarity of homicide at the tract level in Miami, homicides are not included in the analysis. The authors have excluded rape for the same reason and also because rape does not figure prominently in the literature on the violence associated with drug market activity (Blumstein 1995; Blumstein and Rosenfeld 1999; Currie 1993. But see Johnson et al. (2000, 182–83) for a discussion of drug use, drug markets, and domestic violence.

<sup>4</sup>A household is linguistically isolated, according to the Census, if no member 14 years old or older speaks English “very well.” See [http://www.census.gov/mso/www/cencal/05planner\\_Nov.pdf](http://www.census.gov/mso/www/cencal/05planner_Nov.pdf).

<sup>5</sup>The percentages sum to over 100% because multiple drugs were detected in some overdose decedents.

recent study reveals that Blacks are overrepresented in neighborhood drug arrest data, when compared with survey-derived estimates of the racial composition of drug couriers (Beckett, Nyrop, and Pfingst 2006). Similarly, other research has shown that drug arrest rates are correlated with the racial composition of city populations, even after indicators of socioeconomic disadvantage are controlled (Mosher 2001). For these reasons, part of any observed relationship between drug arrest rates and violent crime and its covariates may be an artifact of differential enforcement patterns. Because police enforcement is likely to have little effect on deaths from drug overdoses, using drug overdose deaths to measure drug-market activity overcomes this likely source of bias.

Finally, because most deaths from drug overdose are technically unintentional or accidental deaths, the authors include a measure of nondrug accidental deaths per 1,000 population in their model of drug activity as a control for unmeasured neighborhood differences in the propensity to accidents.

All of the variables in the analysis are measured at the tract level. The City of Miami has 81 census tracts, however missing data on one or more of the measures or very low population counts resulted in 74 tracts available for the analyses report here. Census tracts contain 2,000 to 8,000 residents and are “designed to be relatively homogeneous with respect to population characteristics, economic status, and living conditions” (U.S. Census Bureau, 2000, A11). The 74 Miami tracts in the authors’ analysis average 5,150 residents, and none has fewer than 1,200 residents. Census tracts are commonly used as approximations for neighborhoods in the quantitative “neighborhood effects” literature in sociology (Sampson, Morenoff, and Gannon-Rowley 2002).<sup>6</sup>

As is common with tract-level data on violent crime and socioeconomic disadvantage in U.S. cities, several of the variables in the analysis are highly skewed in original metric. To reduce skewness and induce homogeneity in error variance, the authors transformed these variables into natural logs prior to analysis (see appendix).

The analysis proceeds in three stages. The authors first inspect maps displaying the spatial distribution of aggravated assault, robbery, and drug overdose rates in Miami. The bivariate correlations among the measures are then discussed. The authors use ordinary least squares regression to estimate the effects on the two violent crime measures of a baseline model, derived from social disorganization theory, consisting of the indexes of residential instability, population heterogeneity, and socioeconomic deprivation. The drug overdose measure was added to the baseline model to evaluate the impact of drug activity on assault and robbery rates, controlling for the baseline indicators. The results are summarized in the form of path diagrams, which allow one to inspect for any observed indirect effects of the social disorganization indicators on the violent crime measures, as well as the direct effects of drug activity.

## Results

Figure 1a through 1c show the distribution of assault, robbery, and drug overdose rates per 1,000 tract population in Miami. Assault and robbery rates are highly concentrated in areas north of downtown and in the Little Haiti and Liberty City neighborhoods, with levels of criminal violence over 20 times greater than those in other areas. Drug overdose death rates also are greater in northern sections of the city than elsewhere, although high rates are found

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<sup>6</sup>An alternative to using census tract boundaries to delineate urban neighborhoods is to create residential aggregations based on street blocks reachable by pedestrian access without crossing major thoroughfares. Such spatial aggregations may be especially useful in studying children’s activity patterns and well-being (Sampson, Morenoff, and Gannon-Rowley 2002, 470). It is less clear whether such ecological units offer notable advantages over census tracts in the study of drug markets and violent crime.

just south of the downtown area as well. With some exceptions, therefore, it appears that levels of violent crime and drug activity coexist in the same Miami locales.

This observation is confirmed by the significant and strong correlations between the drug activity measure and both violent crime measures shown in table 1 ( $r = .565$  for assault and  $.538$  for robbery, both significant at  $p < .01$ ). But the social disorganization indicators also display significant and in some cases sizable relationships with the violent crime measures and the indicator of drug activity, raising the possibility that the association between drug activity and violent crime is spurious. The regression results shown in table 2 address that possibility.

## Social Disorganization and Drug Activity Effects on Violent Crime

Table 2 presents the regression coefficients and standard errors for the effects on assault and robbery of the baseline model of social disorganization (columns 1 and 3). Each of the social disorganization indicators is significantly associated with the aggravated assault rate. In contrast with classical disorganization theory, but in line with more recent research, the measure of population heterogeneity has a modest negative effect on aggravated assault. Assault rates are somewhat lower in areas characterized by relatively large Latino populations, high immigration rates, and linguistic isolation. The same pattern of results is observed for robbery, with the exception of a nonsignificant effect for the deprivation index. The baseline model exhibits a moderately strong fit to the aggravated assault data and a somewhat weaker fit to the robbery data ( $R^2$  adjusted for degrees of freedom is  $.461$  for assault and  $.355$  for robbery). Inspection of the variance inflation factors shows no evidence of multicollinearity in these models.

The measure of drug activity is added to the baseline equations in columns 2 and 4 of table 2 for each of the violent crimes. Controlling for the indicators of residential instability, population heterogeneity, and socioeconomic deprivation, the measure of drug activity has a moderately strong and significant effect on both aggravated assault and robbery rates ( $\beta = .310$  and  $.309$  in the assault and robbery equations, respectively, both significant at  $p < .01$ ). The addition of the drug activity measure significantly improves model fit in the equations for both crime types.<sup>7</sup> These results lend support to the main hypothesis under investigation. The effect of drug market activity on violent crime is independent of the effects of the social disorganization indicators. Model diagnostics show no indication of multicollinearity in these equations.

The measure of residential instability remains significant in the models containing the drug activity measure, whereas the effect of the heterogeneity index becomes nonsignificant. The effect of the deprivation index on aggravated assault remains highly significant and moderately strong in the presence of the drug activity measure. These results offer partial support for the hypothesis that drug market activity mediates the effects of social disorganization on violent crime rates. Residential instability continues to influence violent crime rates after controlling for neighborhood differences in drug market activity. The significant negative effect of neighborhood heterogeneity on violent crime, on the other hand, appears to result from the fact that drug activity is less pronounced in more heterogeneous neighborhoods. The authors examine the sources of variation across Miami neighborhoods in drug activity in the final model reported in table 2 (column 5).

<sup>7</sup> $F_{1,69} = 10.614, p < .01$ , for the change in model fit between equation 1 and equation 3, and  $F_{1,69} = 8.539, p < .01$ , for the change in model fit between equation 2 and equation 4 in table 2.



## Social Disorganization Effects on Drug Activity

Table 2 presents the effects of the three social disorganization indicators on drug activity. The nondrug accidental death rate also is included in the equation. The model exhibits no indication of multicollinearity. Both residential instability and population heterogeneity have an effect on neighborhood drug activity, although the effect of the instability measure is only marginally significant ( $p = .06$ ). Drug activity is less prevalent in more heterogeneous areas of the city and perhaps more prevalent in more unstable areas. The degree of socioeconomic deprivation, surprisingly, has no effect on drug activity. By contrast, the effect of the accident measure is highly significant and strong: Drug activity, at least as measured by drug overdose deaths, is concentrated in areas of the city where residents are more prone to lethal accidents.

Apart from their vulnerability to drug activity, do neighborhoods with relatively large concentrations of accident-prone residents also have higher violent crime rates, as would be predicted, for example, by theories linking crime to low self-control (Gottfredson and Hirschi 1990)? The answer is no. When the nondrug accidental death rate is added to equation 2 and equation 4 in table 2, it has no significant effect on violent crime, and the other results remain unchanged (results not shown). Contrary to the expectations of Gottfredson and Hirschi's (1990) "general theory of crime," these findings indicate that low self-control as manifested in accidental deaths is not directly related to crime.

## The Role of Race

Are violent crime and drug activity related to the racial composition of Miami neighborhoods? As is common in studies of urban crime rates, strong correlations exist between the percentage of the population that is Black and indicators of social disorganization (see table 1). As a result, unacceptable levels of multicollinearity result when racial composition is added as a separate covariate to the crime and drug equations displayed in table 2. One way of avoiding the "partialling fallacy" when estimating the impact of racial composition on crime rates is to add an indicator of racial composition to an index consisting of poverty, family disruption, and other measures of disadvantage with which racial composition is highly correlated (Land, McCall, and Cohen 1990). Doing so in the current study allows us to compare models that contain information on racial composition with those that do not. If it is found that the models containing the racial composition measure do not exhibit a better fit to the data than those without it, one may conclude that race adds nothing "extra" to explanations of violent crime and drug activity premised on conditions of social disorganization. On the other hand, were the models containing information on race found to have greater explanatory power than those without it, one would conclude that something in the racial composition of communities beyond deprivation, instability, or heterogeneity, affects the level of violent crime or drug activity.

To investigate the influence of racial composition on violent crime and drug activity, an indicator of the percentage of the tract population that is Black was added to the deprivation index, with which it is strongly correlated ( $r = .792, p < .01$ ). The authors then replaced the deprivation index in the violent crime and drug activity equations with this revised index. The revised models do not produce appreciably better fit to the data, and the results for the individual covariates are substantively similar to those in the original equations (results not shown).<sup>8</sup> These findings indicate that knowing the racial composition of Miami neighborhoods does not enhance one's ability to explain the distribution of violent crime. They also suggest, contrary to this study's final hypothesis, that the effect of racial composition on violent crime is not

<sup>8</sup>The adjusted coefficients of determination for the aggravated assault models containing the original deprivation index and the revised index, respectively, are  $R^2_{adj} = .526$  and  $.540$ . The corresponding comparison for robbery is  $R^2_{adj} = .417$  and  $.430$ , and for drug activity  $R^2_{adj} = .335$  and  $.336$ . The conventional  $F$ -test on these small differences in model fit shows none to be statistically significant.

mediated by drug activity, because knowledge of neighborhood racial composition does not help us explain the distribution of drug activity.

### Supplementary Analysis of Drug Arrest Rates

Although, for reasons stated earlier, the authors prefer drug overdose deaths to drug arrests as an indicator of neighborhood drug activity, it is instructive to compare the results of analyses based on the two indicators. Previous research suggests two hypotheses to guide these supplementary analyses. First, if drug arrests are to some degree endogenous to violent crime, as suggested by the hypothesis that the police patrol more heavily and therefore make more drug arrests in violent neighborhoods, one should observe a stronger relationship between violent crime and drug activity when measured by drug arrests than when measured by drug overdoses. Second, if Blacks are overrepresented in drug arrests compared with their involvement in drug activity, one should observe a significant race effect on drug arrests but not on drug overdoses.

The results of the supplementary analyses are consistent with both expectations. When the drug arrest rate, consisting of arrests for drug possession and distribution, is substituted for the drug overdose rate as the measure of drug activity, the authors find significantly larger effects of drug activity on both robbery and aggravated assault rates than those presented in table 2. When neighborhood racial composition (percentage Black) is added to the deprivation index, the effect of this revised disadvantage measure on the drug arrest rate is significantly larger than the effect of the disadvantage index without racial composition, controlling for residential instability and population heterogeneity. Recall that the authors found no significant difference between the effects of the two deprivation measures on drug overdose rates. Although far from definitive, these results are consistent with the hypothesis of differential drug enforcement in more violent neighborhoods and those with larger Black populations.<sup>9</sup>

### Direct and Indirect Effects of Social Disorganization on Violent Crime

One has seen that the indicators of social disorganization have both direct effects on violent crime and indirect effects through drug activity, which is significantly associated with both aggravated assault and robbery rates. The effects differ somewhat for the two crime types. The direct and indirect effects of social disorganization on violent crime are summarized in the path diagrams presented in figure 2 and figure 3.<sup>10</sup>

Levels of residential instability and socioeconomic deprivation in Miami neighborhoods have significant and positive direct effects on rates of aggravated assault, as predicted by social disorganization theory. Residential instability may also have a small and indirect effect on aggravated assault through drug activity, although the effect of instability on drug activity is only marginally significant. Although the authors did not attempt to model the social sources of nondrug accidental deaths in this study, the significant correlation between instability and accidental deaths ( $r = .303, p < .01$ ) suggests that instability may affect drug activity indirectly through its relationship with the rate of accidental deaths. Socioeconomic deprivation does not have an indirect effect on aggravated assault through drug activity, with which it is not significantly related ( $\beta = .084$ ). The heterogeneity of neighborhood populations, by contrast, has no direct effect on aggravated assault but it does have an indirect effect through its relationship with neighborhood drug activity. By suppressing drug activity, more heterogeneous neighborhoods indirectly reduce aggravated assault, a result not expected from social disorganization theory.

<sup>9</sup>The supplementary analyses are available from the authors on request.

<sup>10</sup>As is customary in path diagrams, the coefficients displayed in figure 1 and figure 2 are standardized regression coefficients ( $\beta$ ). The coefficients are from table 2. Correlations among the exogenous variables are not shown.

The same results, with a significant exception, appear for robbery. Residential instability has a significant direct effect on robbery rates and a marginal indirect effect through drug activity. Population heterogeneity has no direct effect on robbery, but it does have an indirect effect through its negative relationship with drug activity. Neighborhood deprivation, however, has no effect on robbery rates, either direct or indirect. Although it is possible that socioeconomic deprivation is related to robbery rates through its positive correlation with residential instability or its negative correlation with population heterogeneity (see table 1), the difference in results for the two crime types implies a corresponding difference in the ecological distribution of aggravated assault and robbery, as discussed below.

## Discussion

Several years after the rise and fall of the urban crack markets, illegal drug use and drug trafficking continue to stimulate violent crime in U.S. urban areas. Using data collected from the city of Miami Police Department and Miami-Dade County Medical Examiners Office, this study offers one of the first within-city ecological examinations of the impact of drug activity on criminal violence. The authors hypothesized that the same dimensions of social disorganization that are associated with high rates of violent crime also predict the level of neighborhood drug activity. Areas characterized by socioeconomic disadvantage and residential instability should exhibit higher rates of aggravated assault and robbery and should have higher levels of drug activity (*hypothesis 1*). Secondly, the authors hypothesized, contrary to social disorganization theory, that population heterogeneity should have no relationship or a negative relationship with area violent crime rates (*hypothesis 2*). The third hypothesis was that drug activity, as indicated by the prevalence of drug overdose deaths, should have direct effects on violent crime rates, controlling for the indicators of social disorganization (*hypothesis 3*). Finally, prior research suggests that drug activity mediates the relationship between neighborhood racial composition and violent crime rates (*hypothesis 4*).

The authors found evidence in support of the first three of these hypotheses, but not the fourth. Residential instability explains a significant portion of the variance across Miami neighborhoods in both aggravated assault and robbery rates. Its effect on neighborhood drug activity is just outside the conventional limits of statistical significance. Socioeconomic deprivation is directly connected to the rate of aggravated assault, but not to the robbery or drug activity rate. Population heterogeneity affects aggravated assault and robbery rates through its negative association with drug activity, which in turn has a direct effect on violent crime that is independent of the disorganization indicators. The racial composition of an area, when added to an index of socioeconomic deprivation, does not improve one's ability to explain neighborhood differences in criminal violence. Nor does it help to explain the distribution of drug activity, the premise of the authors' fourth hypothesis.

These results have important implications for both social disorganization theory and theories of race and violent crime. A continuing criticism of research in the social disorganization tradition emphasizes the absence of attention to the intervening social processes that link the structural features of communities with crime rates (Bursik and Grasmick 1993; Sampson 2002; Sampson and Groves 1989). In recent years, researchers have begun to identify intervening mechanisms, such as collective efficacy, social capital, and extra-community resources and ties that function to reduce community crime rates (Baumer, Messner, and Rosenfeld 2004; Rosenfeld, Messner, and Baumer 2001; Sampson, Raudenbush, and Earls 1997; Velez 2001). Yet, it is also likely that disorganized communities produce or cannot easily repel conditions that *aggravate* the crime problem. One such condition is illicit drug activity. This study's results show that traditional dimensions of social disorganization predict drug activity which, in turn, leads to higher levels of criminal violence. The results are sufficiently strong as to suggest that significant drug activity in an area is a disorganizing influence in its

own right. Future research that investigates the connection between crime and social disorganization in urban areas should incorporate measures of illicit drug activity.

Equally important, however, is the mixed character of the study's results for explanations of urban violence rooted in the disorganization tradition. The three main dimensions of social disorganization—instability, heterogeneity, and deprivation—do not have consistent effects on neighborhood violent crime and drug activity. Only instability, the combination of high rates of residential mobility, vacancy, rental housing, and young males, is related in the theoretically expected direction to both aggravated assault and robbery rates. Instability is only marginally associated with neighborhood drug activity. The authors find that the level of deprivation in a neighborhood is a robust predictor of aggravated assault rates but is unrelated to robbery. This finding is consistent with explanations of street robbery that focus on the process of target selection. Although robbery is an opportunistic offense, robbers do seek lucrative targets when they can, and they are less likely to be found on the streets of impoverished areas of the city, especially in a city like Miami with large numbers of tourists (Wright and Decker 1997). At the same time, robberies are less likely to be deterred in unstable areas where residents' investments in community safety may be weak or fleeting.

It is more difficult to explain why socioeconomic deprivation is unrelated to neighborhood drug activity. The qualitative evidence on the location of drug markets, including the first author's observations of drug market activity in Miami, suggest that drug activity is concentrated in more impoverished and racially isolated urban areas. By its very nature, such research focuses on highly visible street drug activity, as does research that uses police data on drug arrests to measure the prevalence of drug activity (e.g., Warner and Coomer 2003). Qualitative observations and arrest statistics may miss less visible drug activity that occurs indoors away from direct observation (Mosher 2001). The measure of drug activity in the current study, however—overdose deaths from illegal drugs—should not be subject to this possible source of bias. In so far as the less visible forms of drug activity occur in both deprived and more affluent areas, this study's measure of drug activity would not be strongly related to neighborhood deprivation. The fact that it is related to violent crime, however, suggests that future research on the relationship between drugs and criminal violence should employ measures that detect both visible and hidden drug activity.

The authors find a strong connection in the current study between this study's measure of drug activity and the rate of nondrug accidental deaths. Accidental deaths, in turn, are correlated with neighborhood instability and population heterogeneity, although not with deprivation. These results imply that some aspects of neighborhood social organization may facilitate or fail to deter nondrug accidental deaths, which in turn elevate deaths from drug overdoses. It is also possible that extensive drug activity in a community increases the (nondrug) accidental death rate.

A systematic assessment of the relationship between lethal nondrug accidents and drug overdose is beyond the scope of the current research. This study's results, however, are pertinent to explanations that link criminal behavior of all kinds to low self-control (Gottfredson and Hirschi 1990). Such explanations pose a starkly individualistic alternative to sociological theories of crime, such as social disorganization theory, that link criminal activity to aspects of the larger social context. Deficient parenting, according to Gottfredson and Hirschi (1990), results in an inability to defer gratification, impulsiveness, recklessness, indifference to the suffering of others, and other characteristics of low self-control that result in criminal behavior, drug use, and accident proneness. Therefore, one should observe high rates of accidents, drug use, and crime, opportunities permitting, where individuals with such characteristics tend to live or congregate. Those areas also should be characterized by extensive poverty and unemployment, because persons with low self-control have difficulty finding and

keeping jobs that pay well. They should have high rates of family disruption, because persons with low self-control make poor marriage partners, and they should be subject to residential instability, because impulsive people indifferent to the consequences of their actions are unlikely to obtain a mortgage or keep up with the rent (Gottfredson and Hirschi 1990). The observed links between crime, drugs, and aspects of social disorganization, then, can be interpreted from the perspective of the theory of low self-control. But the *absence* of a direct association between accidental deaths and crime is plainly inconsistent with the theory. It appears that accidental deaths are related to violent crime, if at all, only through their connection with drug activity. This result implies the existence of *specific* connections between accidents and drug activity, and between drug activity and violence, rather than the generalized effect of low self-control on crime, drug activity, and accidents predicted by Gottfredson and Hirschi's theory.

This study's results for the effects of population heterogeneity pose an important challenge to the social disorganization perspective on crime, in both its classical and "systemic" form. Neighborhoods with large concentrations of immigrants and non-native speakers should have elevated crime rates, according to the theory, because these conditions impede the communication and cooperation among residents necessary to maintain effective social controls (see Bursik and Grasmick 1993, 33). The repeated failure of recent research to show the expected effect of immigration and ethnic heterogeneity on crime suggests either that the nature of immigration and ethnic relations has changed or that population heterogeneity—as distinct from racial disadvantage and isolation—is simply not the "disorganizing" social condition that generations of theorists have assumed it is.

Race is the elephant in the room in theory and research on violent crime in the United States. Renewed attention has been directed to the sensitive issue of culture in explaining the elevated rates of violent crime observed in disadvantaged and racially isolated urban communities (Anderson 1999; Sampson and Wilson 1995). Without denying the possible importance of concepts such as "code of the street" and "cognitive landscapes" for understanding cultural adaptations to concentrated disadvantage and social isolation, the results of this study suggest that it may be unnecessary to invoke subcultural explanations of violent crime in disadvantaged urban Black communities. Black communities in Miami have higher rates of violent crime than other areas because they have higher levels of economic and social disadvantage and perhaps because they lack the protections against drug activity present in more ethnically diverse areas. Although aspects of drug use and marketing likely have cultural origins, the violence associated with drug activity in urban communities is more likely a function of the illegal status of the markets and the resulting vulnerability of sellers and buyers to criminal predation and lack of access to legal dispute resolution mechanisms. If the violence associated with significant drug activity had an additional "cultural" component, the study should have found, controlling for other conditions, higher levels of assault and robbery in communities with a greater proportion of Black residents where the presumed violent conduct codes are present. But it did not. Until replications conducted elsewhere suggest otherwise, the authors provisionally conclude that the combination of drug activity and other conditions of social disorganization are sufficient to explain the higher rates of violent crime observed in disadvantaged inner-city Black neighborhoods.

Two policy implications can be derived from the study's results: suppression of drug markets and expanded drug treatment. If violent crime results from illicit drug activity, law enforcement efforts to suppress drug markets can contribute to violence reduction. But suppression is unlikely to be maximally effective, especially with drug activity that occurs out of public view, unless it is coupled with expanded drug treatment. The two policies can be combined in the form of "coerced" harm reduction that suspends arrest and prosecution for illicit drug possession on the condition that offenders enter and remain in drug treatment. Without legal

incentives many drug users will refuse treatment, but without treatment demand for illicit drugs is unlikely to be curtailed significantly. Both are necessary to reduce the violence associated with illicit drug activity.

Miami's concentrated disadvantage, racial isolation, and drug-related violence are distressingly similar to such conditions in other American cities, suggesting that the findings and recommendations of the current study can be applied elsewhere. But Miami differs from other cities in ways that may limit the generalizability of the study's results. As a major illicit drug distribution center, patterns of drug use and drug marketing could differ from those observed in other cities. As a heavily Cuban immigrant "majority minority" city, Miami differs both from older urban industrial centers in the Northeast and Midwest with majority or near-majority African-American populations and from Western cities such as San Diego, Phoenix, and El Paso with large Mexican-origin populations. How such differences may influence the effect of population heterogeneity on drug activity and violence is an important question for future research, the results of which may lead to a fundamental rethinking of the role of population heterogeneity in social disorganization theory.

Two final limitations of this study are the uncertain validity of the authors' measure of drug activity and the nonexperimental and cross-sectional nature of the data, which make causal inferences inherently problematic. There are several advantages to using drug overdose deaths to measure drug activity: They are dominated by hard street drugs (cocaine and heroin), are not subject to the enforcement biases that may affect drug arrests, and they pick up less public drug activity that may not be visible to field observers or survey respondents (Beckett, Nyrop, and Pflingst 2006; Warner and Coomer 2003). Spatial variation in drug overdose deaths, however, is a valid indicator of spatial variation in drug activity only to the extent that overdose victims reside in the same areas in which they obtain their drugs. Although that assumption is not unreasonable on its face, an important task in future research using this measure is to determine the spatial proximity of drug overdoses to drug markets.

Although the authors have argued that social disorganization elevates neighborhood drug activity, which in turn increases rates of violent crime, it is very likely that these relationships are reciprocal in nature. Once drug markets and high levels of criminal violence take hold in a community, they may hasten the spiral of disorder and decay. Unraveling the causal sequences in these processes will require data over an extended time period, and the ME reports on drug overdose deaths available to the authors cover only a limited period since the mid-1990s. For now, the authors conclude that illegal drug activity is a potent form of social disorganization in Miami neighborhoods associated with high rates of violent crime.

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## References

- Abbott, Edith. *The tenements of Chicago*. Chicago: Univ. of Chicago Press; 1936. p. 1908-1935.
- Anderson, Elijah. *Streetwise: Race, class, and change in an urban community*. Chicago: Univ. of Chicago Press; 1990.
- Anderson, Elijah. *Code of the street: Decency, violence, and the moral life of the inner city*. New York: Norton; 1999.
- Baumer, Eric P. Poverty, crack, and crime: A cross-city analysis. *Journal of Research in Crime and Delinquency* 1994;31:311-327.
- Baumer, Eric P.; Messner, Steven F.; Rosenfeld, Richard. Dimensions of social capital and rates of criminal homicide. *American Sociological Review* 2004;69:882-903.

- Baumer, Eric P.; Lauritsen, Janet L.; Rosenfeld, Richard; Wright, Richard. The influence of crack cocaine on robbery, burglary, and homicide rates: A cross-city, longitudinal analysis. *Journal of Research in Crime and Delinquency* 1998;35:316–340.
- Beckett, Katherine; Nyrop, Kris; Pfingst, Lori. Race, drugs, and policing: Understanding disparities in drug delivery arrests. *Criminology* 2006;44:105–137.
- Blumstein, Alfred. Youth violence, guns, and the illicit drug industry. *Journal of Criminal Law and Criminology* 1995;86:10–36.
- Blumstein, Alfred; Rosenfeld, Richard. Trends in rates of violence in the USA. *Studies on Crime and Crime Prevention* 1999;8:139–167.
- Burgess, Ernest W.; Bogue, Donald J. *Contributions to urban sociology*. Chicago: Univ. of Chicago Press; 1964.
- Bursik, Robert J., Jr; Grasmick, Harold G. *Neighborhoods and crime: The dimensions of effective community control*. New York: Lexington; 1993.
- Currie, Elliott. *Reckoning: Drugs, the cities, and the American future*. New York: Hill and Wang; 1993.
- Dai, Bingham. *Opium addiction in Chicago*. Montclair, NJ: Patterson Smith Reprint Series; 1935 1970.
- Dunn, Marvin. *Black Miami in the twentieth century*. Gainesville, FL: Univ. Press of Florida; 1997.
- Galea, Sandro; Ahern, J.; Vlahov, D.; Coffin, PO.; Fuller, C.; Leon, AC.; Tardiff, K. Income distribution and risk of fatal drug overdose in New York City neighborhoods. *Drug and Alcohol Dependence* 2003;70(2):139–143. [PubMed: 12732407]
- Goldstein, Paul J. *Drugs and violent crime*. In: Weiner, N.; Wolfgang, M., editors. *Pathways to criminal violence*. Beverly Hills, CA: Sage; 1989.
- Gottfredson, Michael; Travis, Hirschi. *A general theory of crime*. Stanford, CA: Stanford Univ. Press; 1990.
- Inciardi, James A.; Horowitz, Ruth; Pottieger, Anne E. *Street kids, street drugs, street crime: An examination of drug use and serious delinquency in Miami*. Belmont, CA: Wadsworth; 1993.
- Jacobs, Bruce A. *Dealing crack: The social world of streetcorner selling*. Boston: Northeastern Univ. Press; 1999.
- Johnson, Bruce D.; Golub, Andrew; Dunlap, Eloise. The rise and decline of hard drugs, drug markets, and violence in inner-city New York. In: Blumstein, A.; Wallman, J., editors. *The crime drop in America*. New York: Cambridge Univ. Press; 2000. p. 164–206.
- Krivo, Lauren J.; Peterson, Ruth D. Extremely disadvantaged neighborhoods and urban crime. *Social Forces* 1996;75:619–648.
- Land, Kenneth C.; McCall, Patricia L.; Cohen, Lawrence E. Structural covariates of homicides rates: Are there any invariances across time and social space? *American Journal of Sociology* 1990;95:922–963.
- Lee, Matthew; Martínez, Ramiro, Jr; Rosenfeld, Richard. Does immigration increase homicide? Negative evidence from three border cities. *Sociological Quarterly* 2001;42:559–580.
- Logan JR, Alba RD, Zhang W. Immigrant enclaves and ethnic communities in New York and Los Angeles. *American Sociological Review* 2002;67:299–322.
- Martínez, Ramiro, Jr. *Latino homicide: Immigration, violence, and community*. New York: Routledge; 2002.
- Martínez, Ramiro, Jr; Lee, Matthew T.; Nielson, Amie L. Segmented assimilation, local context and determinants of drug violence in Miami and San Diego: Does ethnicity and immigration matter? *International Migration Review* 2004;38:131–157.
- Mosher, Clayton. Predicting drug arrest rates: Conflict and social disorganization perspectives. *Crime & Delinquency* 2001;47:84–104.
- Ousey, Graham C.; Augustine, Michelle Campbell. Young guns: Examining alternative explanations of juvenile firearm homicide rates. *Criminology* 2001;39:933–967.
- Ousey, Graham C.; Lee, Matthew R. Examining the conditional nature of the illicit drug market-homicide relationship: A partial test of the theory of contingent causation. *Criminology* 2002;40:73–102.
- Rosenfeld, Richard; Decker, Scott H. Are arrest statistics a valid measure of illicit drug use? *Justice Quarterly* 1999;16:685–699.

- Rosenfeld, Richard; Messner, Steven F.; Baumer, Eric. Social capital and homicide. *Social Forces* 2001;80:283–309.
- Sampson, Robert J.; Groves, Byron W. Community structure and crime: Testing social-disorganization theory. *American Journal of Sociology* 1989;94:774–802.
- Sampson, Robert J.; Wilson, William Julius. Toward a theory of race, crime, and urban inequality. In: Hagan, John; Peterson, Ruth D., editors. *Crime and inequality*. Stanford, CA: Stanford Univ. Press; 1995. p. 34–57.
- Sampson, Robert J.; Morenoff, Jeffrey D.; Gannon-Rowley, Thomas. Assessing “neighborhood effects”: Social processes and new directions in research. *Annual Review of Sociology* 2002;28:443–478.
- Sampson, Robert J.; Morenoff, Jeffrey D.; Raudenbush, Stephen W. Social anatomy of racial and ethnic disparities in violence. *American Journal of Public Health* 2005;95:224–232. [PubMed: 15671454]
- Sampson, Robert J.; Raudenbush, Stephen W.; Earls, Felton. Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science* 1997;277:918–924. [PubMed: 9252316]
- Sampson, Robert J. *Transcending tradition: New directions in community research, Chicago style*. *Criminology* 2002;40:213–230.
- Shaw, Clifford R.; McKay, Henry D. *Juvenile delinquency and urban areas*. Chicago: Univ. of Chicago Press; 1942 1969.
- Short, James F, Jr. *Poverty, ethnicity, and violent crime*. Boulder, CO: Westview; 1997.
- Sullivan, Mercer. *Getting paid: Youth crime and work in the inner city*. Ithaca, NY: Cornell Univ. Press; 1989.
- Thomas, WI.; Znaniecki, F. *The Polish peasant in Europe and America: Volume IV, disorganization and reorganization in Poland*. Boston: Gorham Press; 1920.
- U.S. Census Bureau. *Census 2000: Geographic terms and concepts*. 2000 [accessed April 28, 2005]. <http://www.census.gov/geo/www/tractez.html>.
- Velez, María. The role of public social control in urban neighborhoods. *Criminology* 2001;39:837–864.
- Warner, Barbara D.; Wilson Coomer, Brandi. Neighborhood drug arrest rates: Are they a meaningful indicator of drug activity? A research note. *Journal of Research in Crime and Delinquency* 2003;40:123–138.
- Wilson, William Julius. *The truly disadvantaged: The inner city, the underclass and public policy*. Chicago: Univ. of Chicago Press; 1987.
- Wright, Richard; Decker, Scott. *Armed robbers in action: Stickups and street culture*. Boston: Northeastern Univ. Press; 1997.
- Zimring, Franklin E.; Hawkins, Gordon. *Crime is not the problem: Lethal violence in America*. New York: Oxford Univ. Press; 1997.

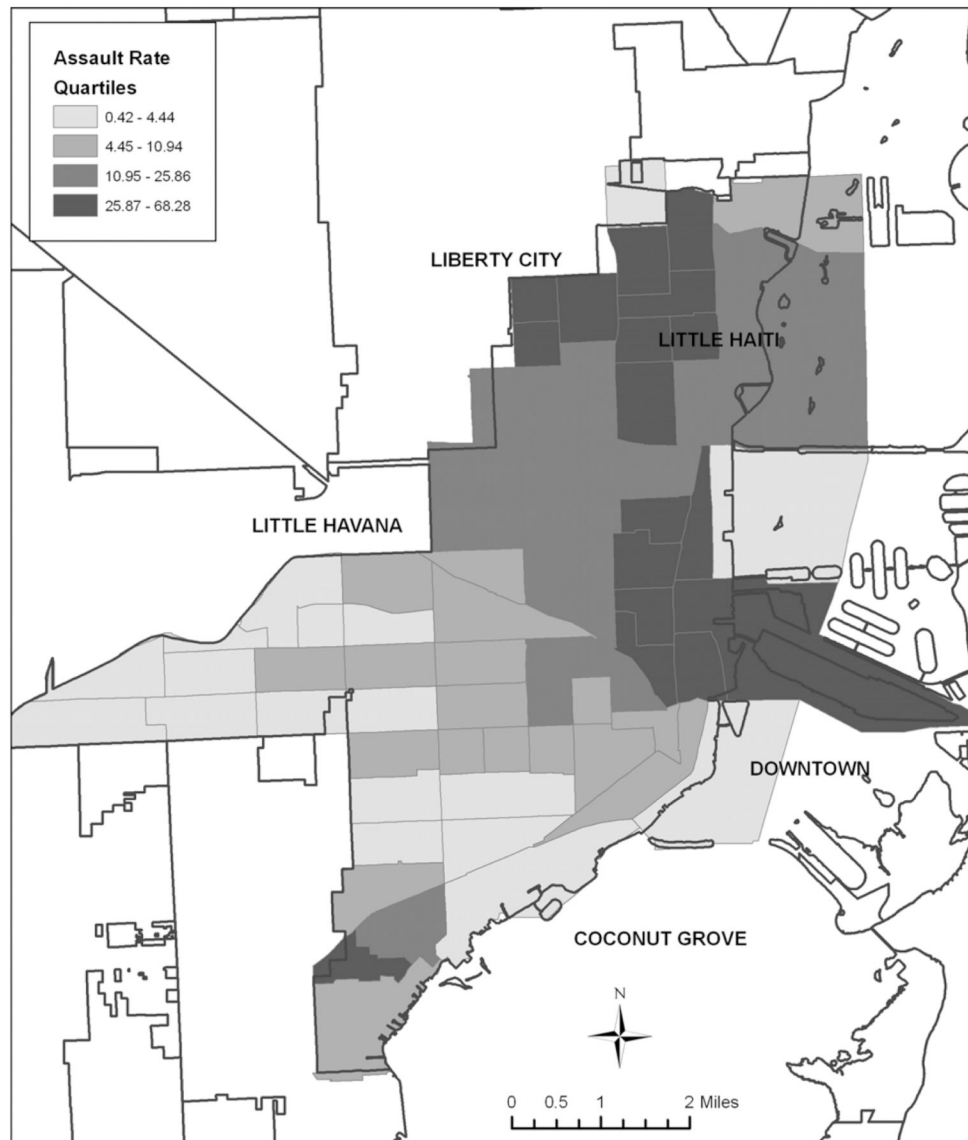
## Biographies

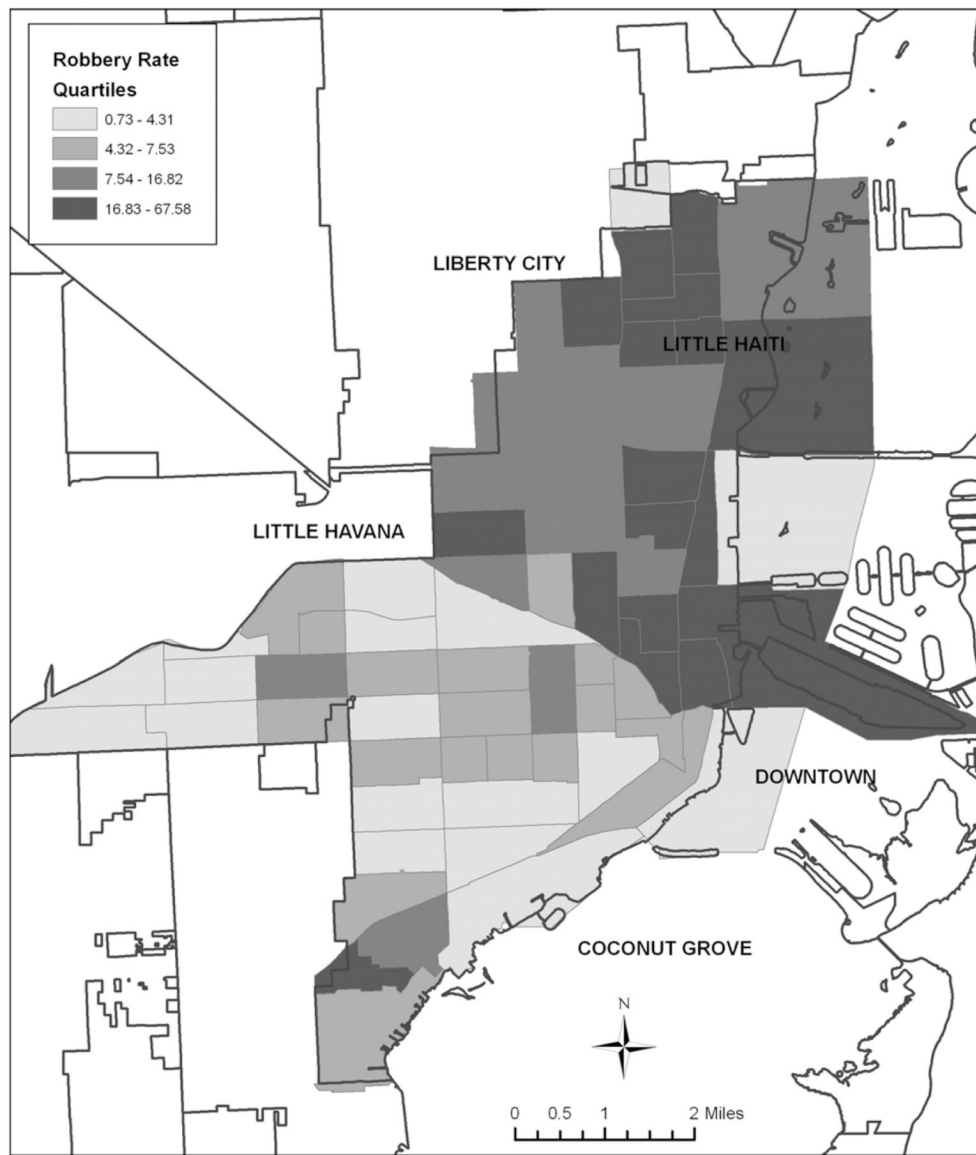
**Ramiro Martínez Jr.** is a professor in the School of Criminal Justice at Florida International University. He is a recipient of the American Society of Criminology’s Division on People of Color and Crime Coramae Richey Mann Award for outstanding scholarship in the area of race, crime, and justice, as well as a past recipient of the Florida International University Faculty Award for Excellence in Research and the American Sociological Association Latina/o Section Award for Distinguished Contributions to Research. He is the author of *Latino Homicide: Immigration, Violence and Community* (Routledge Press, 2002), and editor of *Immigration and Crime: Race, Ethnicity, and Violence* (New York University Press, 2006).

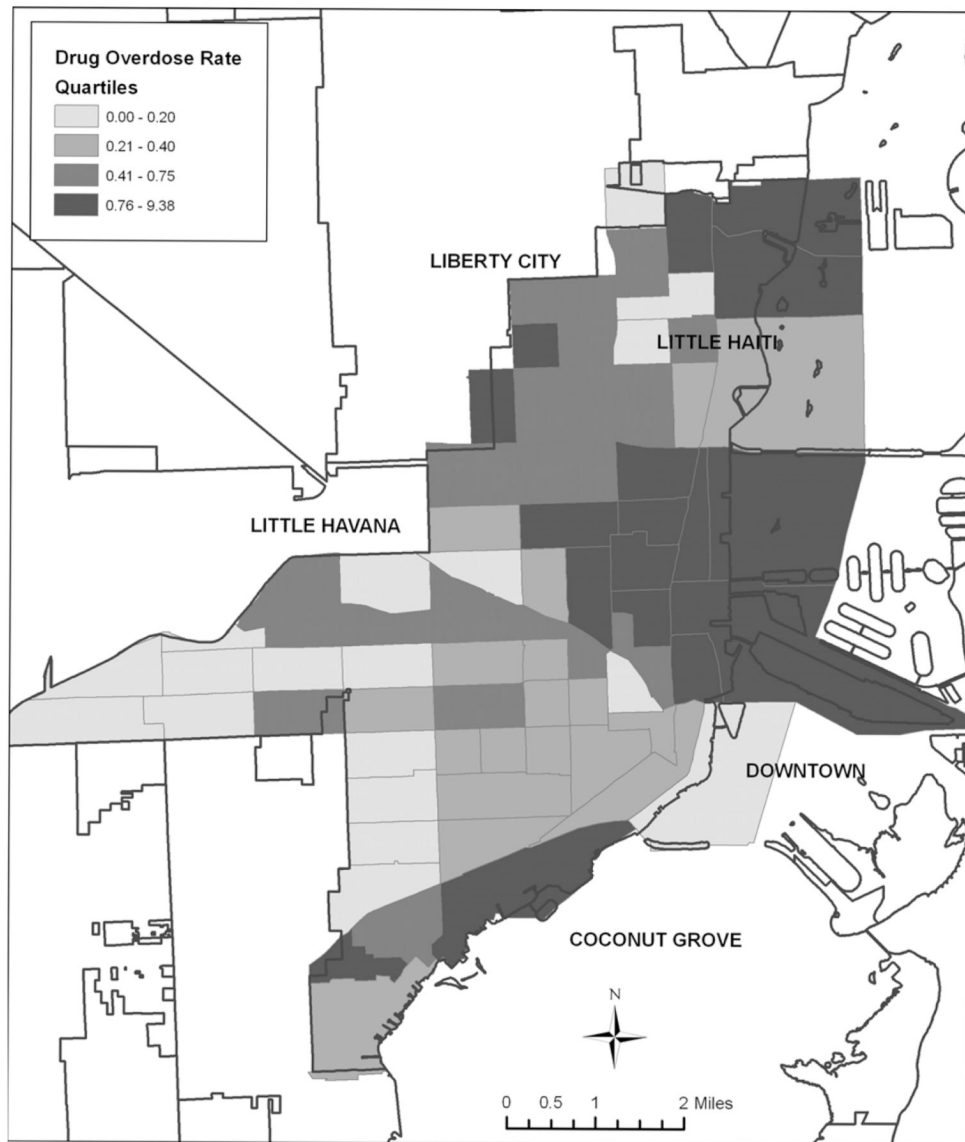
**Richard Rosenfeld** is a curators’ professor of criminology and criminal justice at the University of Missouri-St. Louis. He is coauthor with Steven F. Messner of *Crime and the American Dream* (4th ed., Wadsworth, 2007) and has written widely on the social sources of violent crime. His current research focuses on the relationship between crime trends and changes in economic conditions.



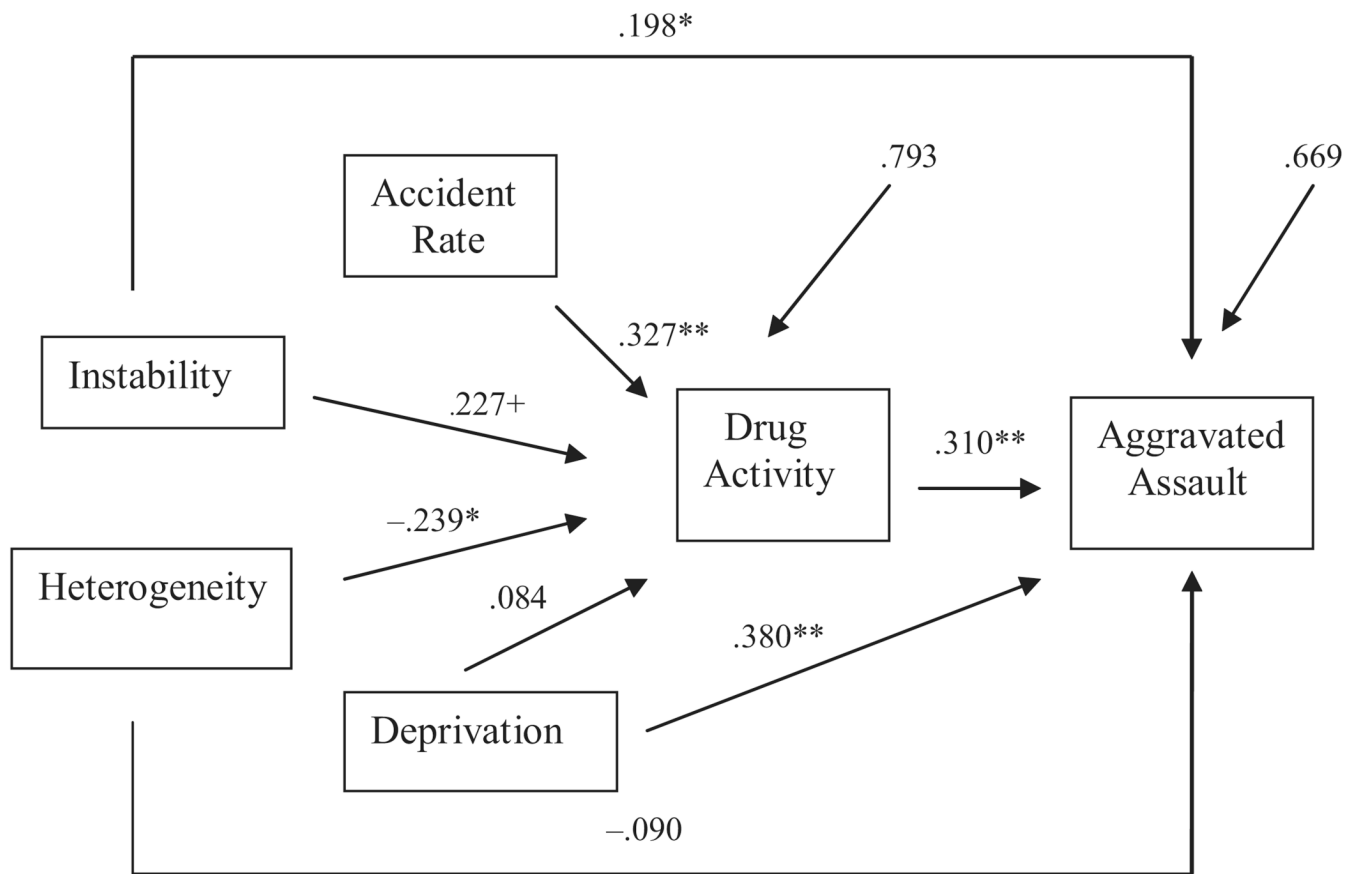
**Dennis Mares** received his PhD in criminology from the University of Missouri at St. Louis and is currently an assistant professor of sociology and criminal justice studies at Southern Illinois University at Edwardsville. His research interests include juvenile gangs, neighborhood dimensions of violence, and historical approaches to the study of crime and its control.



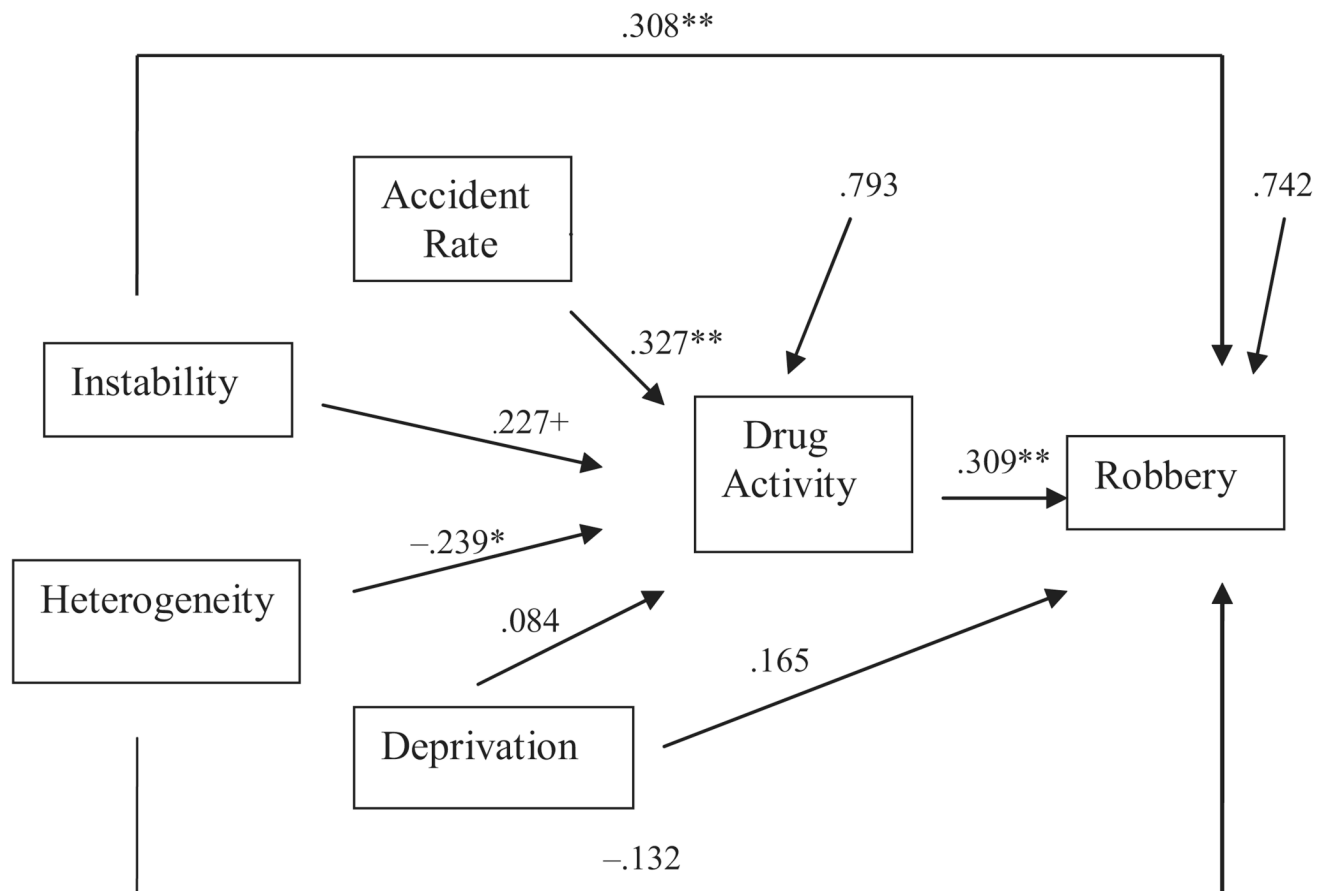




**Figure 1.**  
Figure 1a Aggravated Assaults per 1,000 Miami Residents, 2000–2004 (Yearly Average in Quartiles by Census Tract)  
Figure 1b Robberies per 1,000 Miami Residents, 2000–2004 (Yearly Average in Quartiles by Census Tract)  
Figure 1c Drug Overdose Deaths per 1,000 Miami Residents, 1995–2002 (Yearly Average in Quartiles by Census Tract)



**Figure 2.**  
 Path Diagram of Aggravated Assault, Drug Activity, and Disorganization Indicators  
 \*\*p <.05 \*p <.05 †p <.06 (two-tailed). Correlations among exogenous variables not shown.

**Figure 3.**

Path Diagram of Robbery, Drug Activity, and Disorganization Indicators

\*\*p < .05 \*p < .05 †p < .06 (two-tailed). Correlations among exogenous variables not shown.

**Table 1**  
Correlations for Aggravated Assault, Robbery, Drug Activity, and Social Disorganization Indicators

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Aggravated assault (ln)	—	.905**	.565**	.502**	-.400**	.638**	.379**	.669**
(2) Robbery (ln)	—	—	.538**	.508**	-.341**	.496**	.358**	.627**
(3) Drug activity (ln)	—	—	—	.375**	-.390**	.382**	.490**	.298**
(4) Instability	—	—	—	—	-.033	.487**	.303**	.493**
(5) Heterogeneity	—	—	—	—	—	-.480**	-.317**	-.727**
(6) Deprivation	—	—	—	—	—	—	.223	.792**
(7) Accident rate (ln)	—	—	—	—	—	—	—	.263*
(8) % Black (ln)	—	—	—	—	—	—	—	—

Note:  $N = 74$

\*  $p < .05$

\*\*  $p < .01$  (two-tailed)

**Table 2**  
Regression Results for Aggravated Assault, Robbery, and Drug Activity

	Aggravated Assault			Robbery		Drug Activity	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Instability	.425**	.276*	.541**	.403**	.373 <sup>†</sup>		
	.142	.141	.146	.147	.196		
	.304	.198	.414	.308	.227		
Heterogeneity	-.212*	-.094	-.239*	-.130	-.296*		
	.107	.107	.110	.111	.148		
	-.201	-.090	-.242	-.132	-.239		
Deprivation	.436**	.421**	.185	.171	.109		
	.129	.121	.132	.125	.169		
	.393	.380	.178	.165	.084		
Drug activity	—	.264**	—	.246**	—		
	—	.081	—	.084	—		
	—	.310	—	.309	—		
Accident rate	—	—	—	—	—		.559**
Adjusted R squared	.461	.526	.355	.417	.335		

Note:  $N = 74$

\*  $p < .05$

<sup>†</sup>  $p < .10$  (two-tailed)

\*\*  $p < .01$



## Appendix

## Descriptive Statistics

	Mean	Standard Deviation
Aggravated assaults per 1,000 population (2000–2004 yearly average) <sup>+</sup>	15.396	14.634
Robberies per 1,000 (2000–2004 yearly average) <sup>+</sup>	11.604	11.440
Drug overdose deaths per 1,000 population (1995–2002 total) <sup>+</sup>	0.856	1.633
Nondrug accidental deaths per, 1000 population (1995–2002 total) <sup>+</sup>	1.449	1.242
% of the population Black <sup>+</sup>	33.137	37.417
<i>Residential Instability Index</i> (Alpha = .689)		
% moved since 1995	49.619	10.487
% vacant housing units <sup>+</sup>	9.841	6.964
% renter-occupied units	66.317	19.448
% males age 18–24 <sup>+</sup>	4.580	1.352
<i>Population Heterogeneity Index</i> (Alpha = .950)		
% Latino <sup>+</sup>	57.548	35.304
% immigrated 1990–2000	19.945	10.608
% linguistically isolated	33.718	21.011
<i>Deprivation Index</i> (Alpha = .892)		
% below poverty line	31.624	14.209
% female-headed households with children under 18 <sup>+</sup>	11.549	8.029
% unemployed	6.522	2.869
<i>Tract population</i>	5150	2121

Note:  $N = 74$

<sup>+</sup> Descriptive statistics for variable in original metric; variable is log transformed (base e) in analysis.