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# Extremely Disadvantaged Neighborhoods and Urban Crime\*

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## *Abstract*

*Drawing on Wilson (1987), this article assesses two hypotheses concerning the relationship between neighborhood disadvantage and crime: (1) extremely disadvantaged neighborhoods have unusually high rates of crime; and (2) local structural disadvantage is equally important in influencing crime in black and white neighborhoods. Hence, racial differences in structural disadvantage account for black-white differences in crime across communities. To test these hypotheses, we examine 1990 census and crime data for local areas in the city of Columbus, Ohio. The analysis lends substantial support for both arguments, particularly for the influence of structural disadvantage on violent crime.*

Recent research has drawn attention to increases in levels of poverty within selected city neighborhoods. Studies have documented that since 1970 there are more urban neighborhoods with high poverty rates (Jargowsky 1994; Jargowsky & Bane 1990; Kasarda 1992, 1993; Mincy, Sawhill & Wolf 1990; Ricketts & Sawhill 1988). In addition, the level of poverty within these areas is often far greater than it was in the early 1970s (Wilson 1987). According to Wilson (1987), the growth of extremely poor urban areas "epitomizes the social transformation of the inner city" (55). This transformation is said to have very detrimental consequences for the residents of poor neighborhoods; prominent among them is a very high crime level.

The central theme in Wilson's argument is that the extreme concentration of disadvantage in some neighborhoods creates a distinctly different social-structural milieu. In particular, extremely disadvantaged neighborhoods are characterized by a high degree of social isolation from mainstream society. As

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such, residents have less access to jobs and less exposure to conventional role models. Further, extremely disadvantaged neighborhoods have relatively few working- and middle-class families to serve as social buffers cushioning the effect of uneven and poor economic conditions. This impedes the ability of communities to sustain basic institutional structures and various sources of social control. These qualitatively distinct features of the social environment lead to unusually high levels of crime.

In positing this structural theory, Wilson (1987) seeks to explain the particularly high levels of social dislocation found in many urban *black* communities, and not simply urban neighborhood problems in general. However, his approach is explicitly *not* race specific. Rather, he argues that uniquely high levels of community poverty and disadvantage are what produce high levels of crime and other social problems in African American neighborhoods. In contrast, predominantly white communities are much less likely to have very high levels of poverty and disadvantage and hence the resulting social dislocations (Sampson 1987; Sampson & Wilson 1995; Wilson 1987). If this logic is correct, then crime rates should vary with community conditions irrespective of neighborhood racial composition. As Sampson and Wilson (1995) note, "the sources of . . . crime [are] remarkably invariant across race and rooted instead in the structural differences among communities" (41).

A large body of research has examined the general relationship between disadvantage and crime, including analyses of neighborhoods or blocks (Bursik 1986; Bursik & Grasmick 1993; Bursik & Webb 1982; Crutchfield 1989; Curry & Spergel 1988; Messner & Tardiff 1986; Patterson 1991; Roncek & Lobosco 1983; Roncek & Maier 1991; Smith & Jarjoura 1988; Taylor & Covington 1988; Warner & Pierce 1993). However, this work has not explored whether extremely disadvantaged neighborhoods have *unusually* high rates of crime compared to neighborhoods with relatively moderate or low levels of disadvantage. Neither have researchers examined whether the link between extreme disadvantage and crime is similar for black and white communities.

In this article, we address these two issues by examining the effects of qualitative distinctions in levels of disadvantage across communities on local crime rates. Further, we evaluate whether the structural conditions that distinguish local areas are equally important for determining crime in black and white neighborhoods, and thereby explain racial differences in crime across communities. We do so by examining areas within a single city with a relatively large number of predominantly black *and* predominantly white high poverty neighborhoods — Columbus, Ohio. Examining poverty, disadvantage, and crime in a city where extreme community poverty and disadvantage are not synonymous with black neighborhoods tests the argument that local structural conditions (rather than race/culture) are important determinants of crime. Before presenting this analysis, we discuss our conceptual arguments in more detail.

## Conceptual Arguments

According to Wilson, the growth of neighborhoods with extreme levels of poverty has created conditions that isolate residents from mainstream society and tie them to a local setting of multiple disadvantages. Drawing on this argument, scholars have explored the association between concentrated poverty and various types of "deviance" such as drug use, teenage childbearing, and violent crime (Anderson 1990; Crane 1991; Harrell & Peterson 1992; Jencks 1991; Mayer 1991; McLanahan, Garfinkel & Watson 1988). In general, these analyses support the notion that poverty and social disadvantage are associated with negative community outcomes.

However, prior studies of neighborhood poverty and social dislocation have not provided adequate tests of Wilson's arguments. Most research has been exploratory and descriptive rather than analytic. Some studies examine only a few neighborhoods within a single city (e.g., Anderson 1990; Fagan 1992; Fernandez & Harris 1992; Hamid 1992; Wacquant & Wilson 1989), or only poor neighborhoods, leaving little basis for comparing social outcomes across different levels of poverty and disadvantage (Anderson 1991; Fernandez & Harris 1992; Hagedorn 1991; Wacquant & Wilson 1989). A few analyses have included larger samples of neighborhoods or cities, but these too mainly provide descriptive evidence regarding the concentration of the population in high poverty or underclass census tracts; they do not examine the consequences of concentrated poverty on social outcomes like crime (Galster & Mincy 1993; Jargowsky 1994; Jargowsky & Bane 1990; Kasarda 1992, 1993; Mincy, Sawhill & Wolf 1990; Ricketts & Sawhill 1988). The few studies that have examined the effect of concentrated poverty or disadvantage on social outcomes for large samples of neighborhoods have not examined crime (Crane 1991; Massey, Gross & Eggers 1991).

Yet there is a relatively extensive body of literature on neighborhood crime. Many studies have explored the effects of poverty, inequality, and other structural conditions on crime rates (Bursik 1986; Bursik & Grasmick 1993; Bursik & Webb 1982; Crutchfield 1989; Curry & Spergel 1988; Messner & Tardiff 1986; Patterson 1991; Roncek & Lobosco 1983; Roncek & Maier 1991; Smith & Jarjoura 1988; Taylor & Covington 1988; Warner & Pierce 1993). Some analyses report a link between poverty and criminal victimization or offending (e.g., Curry & Spergel 1988; Messner & Tardiff 1986; Patterson 1991). However, these efforts do not provide an adequate test of Wilson's theoretical arguments about the criminal consequences of concentrated poverty and disadvantage because they do not conceptualize or measure the critical discrete distinctions across communities that are central to his discussion.

Consistent with Wilson, we argue that extreme neighborhood poverty and disadvantage are associated with unusually high levels of crime because the conditions that encourage criminal behavior are particularly pronounced. Further, mechanisms of social control that normally serve to discourage crime are especially lacking. Within the most disadvantaged neighborhoods, residents are socialized to engage in criminal activity through modeling the actions of others (Anderson 1990; Sampson & Wilson 1995; Skogan 1990; Wacquant 1993). They more commonly witness criminal acts and have role models who do not

restrain their own criminal impulses. At the same time, there are fewer "old heads" that provide anticrime, antitrouble lessons; and those that remain no longer have prestige and credibility as role models (Anderson 1990). As a result, crime becomes a more common aspect of everyday life.

The need to adapt to a crime-ridden environment encourages further crime, especially violence, in the most disadvantaged neighborhoods. That is, residents must use or appear ready to use violence to defend their lives and property. As more people adopt defensive and threatening postures and behaviors such as carrying weapons, the level of violence escalates and the number of people who rely upon violence for defensive purposes increases (Massey 1995).

The role modeling and adaptation processes just described may be particularly potent in the most disadvantaged communities because of widespread joblessness and irregular employment. These conditions mean that many who reside in these neighborhoods are idle for large parts of the day. Idle individuals may spend significant amounts of time in settings where nonconventional role modelling and defensive posturing are extremely prevalent — local taverns, pool halls, and street corners. Thus they are involved in a "situation of company" that may be very conducive to criminal activity (Crutchfield 1989).

In addition to the conditions that encourage crime, the concentration of poverty and other disadvantages results in fewer networks of informal control, and fewer viable conventional community-based institutions that discourage crime. First, families, neighbors, and other primary groups are less likely to form networks whereby they watch over one another's property, intervene in crimes, and supervise youth activities (e.g., hanging out and truancy) that may evolve into crime. Similarly, disadvantaged communities do not have the internal resources to organize peacekeeping activities such as crime-tip hotlines, home security surveys, volunteer patrol organizations, and neighborhood crime watches (Garofalo & McLeod 1989). At the same time, local organizations (churches, schools, recreation centers) that link individuals to wider social institutions and foster mainstream values are lacking (Hagedorn 1991; Wacquant 1993). Social control also may be thwarted because of inadequate police protection, i.e., insufficient supply and deployment of police, failure to respond to calls from residents, or slow and irregular responses by available police. As a result, the costs associated with engaging in crime and violence are lessened and the possible deterrent effect of the law is reduced. In short, residents of extremely disadvantaged communities simply lack the financial, social, and institutional resources to prevent and fight crime effectively (Bursik & Grasmick 1993).

In Wilson's view, the structural constraints noted above are central to understanding the large observed racial differences in urban crime. This is because urban blacks and whites tend to be highly segregated from one another living in communities that are ecologically and economically distinct. Predominantly black urban neighborhoods are characterized by average levels of poverty, joblessness, family disruption, and other aspects of deprivation that are higher than in white communities (Massey 1990; Massey, Condran & Denton 1987; Massey & Denton 1993). As a result, neighborhoods of extreme disadvantage are synonymous with black neighborhoods in many U.S. cities. Yet racial

composition may not be the key to understanding high levels of social dislocation in such areas. Rather, Wilson (1987) and Sampson and Wilson (1995) argue that extreme disadvantage is the source of higher levels of crime in black communities. If similar conditions prevailed in white neighborhoods, they too likely would exhibit very high levels of crime. As plausible as this argument appears, this thesis has gone untested because whites rarely live in extremely disadvantaged communities (Kasarda 1993), rendering it difficult to obtain appropriate samples of black and white neighborhoods for comparison.

In this article, we overcome this sample problem by studying a city with a relatively high prevalence of black *and* white disadvantage. Doing so allows us to assess central issues raised by Wilson concerning the relationships among race, neighborhood disadvantage, and crime. We address these issues by comparing crime levels in extremely poor and disadvantaged black and white neighborhoods with crime in their counterparts with low and high disadvantage. Consistent with the arguments presented above, we expect that extremely disadvantaged areas have dramatically higher levels of crime than other types of communities. We also expect the same type of relationship between crime and disadvantage for black and white neighborhoods; that is, ecologically and economically similar black and white areas should have uniform levels of crime. To test these propositions, we control for the impact of other neighborhood conditions that have been hypothesized or found in previous research to influence crime rates. These include measures of community instability (as aspects of social disorganization, see Bursik 1986, 1988; Sampson & Groves 1989) and controls for the sizes of the young male and black populations.

## Data and Methods

### SAMPLE AND DATA

The concern in this analysis is with *neighborhood* disadvantage and crime. The actual units examined are census tracts in the city of Columbus, Ohio for 1990. Census tracts do not necessarily correspond to neighborhoods in a socially meaningful sense. However, they are the best local areas for which the required data are available, and they have been used in prior analyses of urban crime (Crutchfield 1989; Kohfeld & Sprague 1988, 1990; McClain 1989). We examine areas within the central city of the metropolitan area because Wilson's (1987) discussion of the consequences of social isolation focuses on the urban core.

There are a total of 215 census tracts in Columbus although many are split across municipal boundaries and thus are only partially within the city limits. Our analysis includes the 177 tracts (or portions of tracts) with at least 700 persons within the city.<sup>1</sup> This minimum size allows us to construct reliable crime rates and other aggregate characteristics. Applying a widely used categorization of neighborhood poverty levels into low (less than 20%), high (20-39%), and extreme (40% or more) (Jargowsky & Bane 1990, 1991; Kasarda 1993; Ricketts & Sawhill 1988; Wilson 1987), 54 of Columbus' census tracts have high ( $N=32$ ) or extreme ( $N=22$ ) poverty rates. Twenty-six of Columbus' tracts are at least 70% black and 122 are at least 70% white (the remainder are more racially mixed). As expected a much higher proportion of the black (38.5%) than white

(7.4%) tracts have extremely high levels of poverty, but the number of black and white tracts with extreme rates of poverty are nearly identical.

Data for the independent variables are from the 1990 U.S. Censuses of Population and Housing Summary Tape File 3A (U.S. Bureau of the Census 1991). The Columbus Police Department (1994) provided counts for a variety of types of reported crime for tracts within the city. These data are the same as those reported in the Federal Bureau of Investigation's (FBI) Uniform Crime Reports (UCR) except that they are broken down by census tract.

#### CRIME RATES

Rates for the FBI's Index Crimes (homicide, forcible rape, robbery, aggravated assault, burglary, larceny, and vehicle theft) provide the dependent variables. We construct separate rates for property (burglary, larceny, and vehicle theft) and violent (homicide, rape, robbery, and aggravated assault) index crimes. Following common practice, three-year (1989-91) average crimes per 1,000 population are calculated to minimize the impact of annual fluctuations and increase the likelihood of having sufficient incidents to construct reliable rates for small areas (e.g., Messner & Golden 1992; Sampson 1985, 1987). Wilson's perspective indicates that poverty and disadvantage contribute to crime by creating structural conditions that enhance both criminal vulnerability and criminal offending. However, our data are for reported victimizations only. While it is important to study offending, the links hypothesized should be evident in analyses of these rates.

#### NEIGHBORHOOD POVERTY AND DISADVANTAGE

To examine the hypothesis that crime is most pronounced in areas with very high poverty rates, we use dummy variables contrasting high (20%-39%) and extreme (more than 40%) to low (less than 20%) poverty neighborhoods. This categorization is used widely in research on urban poverty and the underclass (Jargowsky & Bane 1990, 1991; Kasarda 1993; Ricketts & Sawhill 1988; Wilson 1987). In addition to extreme levels of poverty, the literature on urban social dislocation emphasizes the pernicious consequences of living in areas with widespread family disruption and male joblessness, and a dearth of middle-class role models such as persons in professional and managerial occupations (e.g., Sampson & Wilson 1995; Wilson 1987). Therefore, our analysis includes tract-level measures of: (1) family disruption — the percent of families headed by females; (2) male joblessness — the percent of civilian noninstitutionalized males age 16 and older who are either unemployed or not in the labor force; and (3) occupational composition — the percent of persons age 16 and older who are employed in professional or managerial occupations. As with poverty, we operationalize each of these with a three-group categorization (i.e., two dummy variables distinguishing high and extreme from low disadvantage).

Unfortunately, past research does not indicate appropriate cut-off points for contrasting neighborhoods with distinct levels of these three aspects of disadvantage. In the absence of such standards, we take an empirical approach. Neighborhoods with family disruption or male joblessness at least one standard

deviation *above* the mean, and where percent professionals is at least one standard deviation *below* the mean are regarded as *extremely* disadvantaged along the respective dimensions. *High* levels of disadvantage are defined as between the mean and one standard deviation *above* the mean for family disruption and male joblessness, and between the mean and one standard deviation *below* the mean for the percent professionals. The exact cut-off points for each variable for high and extremely disadvantaged tracts, respectively, are as follows: 25% and 42% for female-headed families, 29% and 42% for male joblessness, and 17% and 6% for professionals and managers

#### ADDITIONAL INDEPENDENT VARIABLES

We include two indicators of community instability that have been examined widely in prior crime studies (Crutchfield 1989; Messner & Tardiff 1986; Patterson 1991; Roncek & Lobosco 1983; Roncek & Maier 1991; Taylor & Covington 1988): (1) rental occupancy — the percent of dwelling units that are renter occupied; and (2) the vacancy rate — the percent of all dwelling units that are vacant.<sup>2</sup> Finally, two control variables are included: the percent of the tract population that is male and in the crime prone ages (15-24), and the percent of the tract population that is black.

#### STATISTICAL ANALYSES

Our basic model examines crime as a function of social disadvantage, community instability, and control variables. Using ordinary least squares (OLS) regression, we estimate separate models of property and violent index crimes for the total sample of 177 tracts. The property but not the violent crime rate has a skewed distribution with a relatively small number of tracts having particularly high rates. Therefore, the property rate variable is transformed logarithmically.

In the estimated OLS models, we simultaneously include disadvantage along with the community instability and population control variables. A more complex model is possible. In light of arguments that the effects of disadvantage on crime are mediated by processes of social disorganization, it would be appropriate to include *direct* measures of this construct as endogenous variables. Along these lines, Sampson (1987) and Shihadeh and Steffensmeier (1994) have argued that family disruption serves this crucial mediating role because of its potential to affect formal and informal social control in the community. We agree that processes of social disorganization may provide the link between disadvantage and crime. However, in our view, empirically modeling family disruption in this manner places too high a demand on the data, reifying family disruption as lack of social control. In fact, the prevalence of female-headed families is an *indirect* measure of community control just as poverty and other disadvantages are indirect indicators of aggregate criminal motivation (the conditions that encourage crime) and social control (the conditions that discourage crime).<sup>3</sup>

To test whether the criminogenic effects of poverty and disadvantage apply in the same way in predominantly black and predominantly white neighbor-

hoods, we perform additional analyses limiting the sample to the 148 tracts that are at least 70% white ( $N = 122$ ) or black ( $N = 26$ ). This excludes 29 tracts that are more racially mixed. The fact that 84% of all tracts in Columbus are racially homogeneous reflects the high level of racial residential segregation found there and in most large urban centers in the U.S. (Farley & Frey 1994; Massey & Denton 1987). Even if disadvantage has similar effects on crime in all neighborhoods as hypothesized, blacks and whites overwhelmingly live in separate neighborhoods that differ substantially in levels of social disadvantage.

The small number of African American tracts precludes performing race-specific analyses. Instead, we estimate models for all 148 racially homogeneous tracts and include interactions between the high and extreme disadvantage dummy variables described above and a dummy variable distinguishing predominantly black from overwhelmingly white tracts. These interactions test whether the effects of high and extreme disadvantage differ significantly for black and white communities.

Multicollinearity among the disadvantage variables is a problem in our analyses. Although poverty, family disruption, male joblessness, and occupational composition are not conceptually identical, empirically they overlap considerably. We address this problem in two ways. First, we examine the effect of each measure separately. Second, we combine these measures into a single index of disadvantage by averaging the standard scores of the four variables. Exploratory factor analysis confirmed that the individual indicators clearly reflect the same underlying construct. For the index, the cut-off points distinguishing high and extremely disadvantaged communities are 0 and .5, respectively. These points correspond to the mean and one standard deviation above the mean of the disadvantage index. As shown below, the general pattern of results is similar across all individual disadvantage measures. However, there are notable distinctions in how different aspects of disadvantage influence crime that would be masked if we had examined only the combined index.

## RESULTS

Means and standard deviations for all variables are presented in Table 1. Consistent with crime patterns throughout the U.S., property offenses comprise the bulk of reported index crimes in Columbus in 1990. Average rates for property and violent crime, respectively, are 94.2 and 11.8 per 1,000 population. These figures compare with rates of 80.0 and 16.4 for U.S. cities with populations over 100,000 in 1990 (U.S. Department of Justice 1992; the population of the city of Columbus was 642,987 in 1990). Regarding measures of disadvantage, a fairly sizable proportion of Columbus tracts have extremely high levels of poverty (12%), male joblessness (18%), and female-headed families (15%). Similarly, 14% of tracts have an extremely small proportion of persons in professional or managerial occupations. Table 1 also presents the zero-order correlation matrix of the variables. All the explanatory variables have the expected positive relationships with property and violent crime. We note, however, that the dummy variable measures of disadvantage should be interpreted cautiously in the bivariate findings because separately each provides a contrast with all other tracts not just with tracts in the reference category of

TABLE 1: Correlations, Means, and Standard Deviations of Dependent and Independent Variables

|                                 | 1     | 2      | 3     | 4     | 5     | 6     | 7     | 8     |
|---------------------------------|-------|--------|-------|-------|-------|-------|-------|-------|
| 1 Ln property rate <sup>a</sup> | 1.000 |        |       |       |       |       |       |       |
| 2 Violent rate                  | .668  | 1.000  |       |       |       |       |       |       |
| 3 High poverty                  | .262  | .272   | 1.000 |       |       |       |       |       |
| 4 Extreme poverty               | .333  | .616   | -.177 | 1.000 |       |       |       |       |
| 5 High job males                | .132  | .112   | .180  | .058  | 1.000 |       |       |       |
| 6 Extreme job male              | .241  | .527   | .161  | .446  | -.303 | 1.000 |       |       |
| 7 High fem. families            | .243  | .096   | .299  | -.102 | .136  | -.005 | 1.000 |       |
| 8 Extreme fem. families         | .320  | .695   | .209  | .602  | .002  | .495  | -.248 | 1.000 |
| 9 Low profession                | .038  | .061   | .118  | -.011 | .289  | .029  | .283  | .042  |
| 10 Extreme low prof.            | .278  | .475   | .071  | .451  | -.002 | .500  | -.004 | .429  |
| 11 High disadvantage            | .190  | .063   | .517  | -.152 | .095  | .083  | .466  | -.141 |
| 12 Extreme disadvantage         | .377  | .717   | .140  | .788  | .072  | .531  | -.160 | .814  |
| 13 Vacancy                      | .484  | .663   | .316  | .367  | -.114 | .346  | .062  | .532  |
| 14 Renters                      | .553  | .420   | .213  | .361  | -.178 | .087  | .174  | .296  |
| 15 Percent black                | .253  | .602   | .285  | .341  | .138  | .486  | .242  | .595  |
| 16 Young males                  | .272  | .085   | .056  | .366  | .052  | .026  | .027  | -.008 |
| Mean                            | 4.390 | 11.800 | .180  | .120  | .290  | .180  | .250  | .150  |
| Std. dev.                       | .550  | 11.800 | .390  | .330  | .460  | .390  | .440  | .360  |

low disadvantage. Still, the high correlations of the extreme disadvantage dummy variables with *violent* crime are striking. These clearly indicate that levels of violent crime are distinctly higher in extremely disadvantaged neighborhoods than in other areas. Turning to the community instability and control variables, the correlations are all positive as expected and generally moderate to strong. Of particular note, percent black is related much more strongly to violent than to property crime. The weak association between young males and violent crime in Columbus tracts is also noteworthy. The multivariate analyses will assess whether these patterns hold when other variables are considered.

#### MULTIVARIATE RESULTS

Table 2 presents the results of OLS models examining the effects of the discrete distinctions in levels of neighborhood disadvantage on property (logged) and violent crime rates. Bear in mind that with the logged dependent variable for the property rate, multiplying the coefficients by 100 provides results that can be interpreted easily as the expected *percent* change in the property crime rate per unit increase in each independent variable. Also, recall that following Wilson we hypothesized that extremely disadvantaged areas would have dramatically higher levels of crime than communities with low or high levels of disadvantage. Support for this hypothesis would be indicated by the concurrence of two results: (1) the significance of the extreme disadvantage dummy variable, and (2) a substantially larger difference between the rates for extreme

TABLE 1: Correlations, Means, and Standard Deviations of Dependent and Independent Variables

|                                 | 9     | 10    | 11    | 12    | 13    | 14     | 15     | 16    |
|---------------------------------|-------|-------|-------|-------|-------|--------|--------|-------|
| 1 Ln property rate <sup>a</sup> |       |       |       |       |       |        |        |       |
| 2 Violent rate                  |       |       |       |       |       |        |        |       |
| 3 High poverty                  |       |       |       |       |       |        |        |       |
| 4 Extreme poverty               |       |       |       |       |       |        |        |       |
| 5 High job males                |       |       |       |       |       |        |        |       |
| 6 Extreme job. male             |       |       |       |       |       |        |        |       |
| 7 High fem. families            |       |       |       |       |       |        |        |       |
| 8 Extreme fem. families         |       |       |       |       |       |        |        |       |
| 9 Low profession                | 1.000 |       |       |       |       |        |        |       |
| 10 Extreme low prof.            | -.372 | 1.000 |       |       |       |        |        |       |
| 11 High disadvantage            | .102  | -.041 | 1.000 |       |       |        |        |       |
| 12 Extreme disadvantage         | .058  | .437  | -.232 | 1.000 |       |        |        |       |
| 13 Vacancy                      | -.106 | .306  | .095  | .530  | 1.000 |        |        |       |
| 14 Renters                      | -.110 | .086  | .145  | .360  | .593  | 1.000  |        |       |
| 15 Percent black                | .247  | .298  | .184  | .527  | .394  | .111   | 1.000  |       |
| 16 Young males                  | .117  | -.081 | .088  | .295  | .159  | .494   | -.080  | 1.000 |
| Mean                            | .470  | .140  | .210  | .170  | 7.490 | 50.700 | 25.300 | 8.470 |
| St. dev.                        | .500  | .340  | .410  | .380  | 4.940 | 25.600 | 29.600 | 6.270 |

<sup>a</sup> The mean of the unlogged rate of property crime for Columbus tracts is 94.2 per 1,000 populations.

and highly disadvantaged areas than between the rates for high and low disadvantaged communities.

Turning first to *property* crimes (panel A), as expected, rates are significantly higher in communities with high or extreme versus low levels of disadvantage. However, the pattern of effects is inconsistent with Wilson's argument. Tracts with extreme levels of disadvantage tend to have property crime rates that are higher than those found in highly disadvantaged areas, but not dramatically so. To take one example, high poverty areas have property rates that are 21.0% higher than in low poverty neighborhoods. In contrast, extremely poor communities have rates that are 24.9% higher than their low poverty counterparts. This means that property crime rates are only 3.9% higher in communities with extreme than high disadvantage. Similar patterns of relatively small differences between high and extreme deprivation are found for all indicators of disadvantage except percent professionals. Even in this case, the gap in property crime between communities with a low and high presence of professionals (20.2%) is quite similar to that between areas with a low and extremely low number of such persons (42.0-20.2 = 21.8%).

The results for the remaining variables show that the community instability indicators have positive associations with property crime. Higher vacancy rates (in three of five cases) and a greater prevalence of renters in the community (in

TABLE 2: Regression of Property and Violent Crime Rates on Discrete Measures of Disadvantage: Census Tracts in Columbus, 1990<sup>a</sup>

| Panel A: Property Crime Rate (Ln) |                      |                      |                      |                      |                      |
|-----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Independent variables             | Poverty              | Male Jobless         | Female Headed        | Professional         | Dis-advantage        |
| High                              | .2101*<br>(.1036)    | .3988*<br>(.0811)    | .2956*<br>(.0971)    | .2019*<br>(.0793)    | .2237*<br>(.0977)    |
| Extreme                           | .2486*<br>(.1349)    | .3823*<br>(.1074)    | .3214*<br>(.1517)    | .4203*<br>(.1146)    | .2932*<br>(.1420)    |
| Vacancy rate                      | .0145<br>(.0096)     | .0151*<br>(.0090)    | .0190*<br>(.0096)    | .0160*<br>(.0093)    | .0142<br>(.0098)     |
| Percent renters                   | .0082*<br>(.0019)    | .0115*<br>(.0019)    | .0067*<br>(.0020)    | .0097*<br>(.0019)    | .0083*<br>(.0019)    |
| Percent black                     | .0013<br>(.0014)     | -.0007<br>(.0014)    | -.0004<br>(.0017)    | .0004<br>(.0014)     | .0004<br>(.0016)     |
| Percent young males               | .0004<br>(.0067)     | -.0036<br>(.0061)    | .0075<br>(.0062)     | .0024<br>(.0063)     | -.0008<br>(.0068)    |
| Constant                          | 3.7618               | 3.5579               | 3.7340               | 3.5917               | 3.7650               |
| R <sup>2</sup>                    | .3800                | .4471                | .3947                | .4117                | .3838                |
| Panel B: Violent Crime Rates      |                      |                      |                      |                      |                      |
| Independent variables             | Poverty              | Male Jobless         | Female Headed        | Professional         | Dis-advantage        |
| High                              | 5.6558*<br>(1.4844)  | 7.4700*<br>(1.3041)  | 3.5473*<br>(1.5552)  | 3.9074*<br>(1.2939)  | 3.5587*<br>(1.4625)  |
| Extreme                           | 17.3926*<br>(1.9328) | 11.4395*<br>(1.7277) | 14.2100*<br>(2.4301) | 10.8941*<br>(1.8702) | 16.2633*<br>(2.1248) |
| Vacancy rate                      | .7463*<br>(.1376)    | .8233*<br>(.1447)    | .7662*<br>(.1533)    | .8713*<br>(.1512)    | .6191*<br>(.1470)    |
| Percent renters                   | .0358<br>(.0272)     | .1219*<br>(.0300)    | .0201<br>(.0316)     | .0805*<br>(.0304)    | .0569*<br>(.0283)    |
| Percent black                     | .0938*<br>(.0200)    | .0815*<br>(.0223)    | .0719*<br>(.0269)    | .1193*<br>(.0224)    | .0697*<br>(.0233)    |
| Percent young males               | -.3265*<br>(.0957)   | -.2059*<br>(.0985)   | .0495<br>(.1000)     | -.0553<br>(.1022)    | -.3148*<br>(.1011)   |
| Constant                          | 1.6182               | -5.1125              | -.2570               | -4.6498              | 1.6916               |
| R <sup>2</sup>                    | .7199                | .6852                | .6584                | .6555                | .6965                |

<sup>a</sup> Entries are unstandardized coefficients with standard errors in parentheses.

\* p < .05

all five models) produce significantly higher levels of property crime. In contrast, the two control variables are unrelated to this outcome.

The results for violent crime contrast somewhat with those for property offenses. First, community instability has a consistently positive effect although vacancy is more important and renters less important than in the model of property crime. Second, as opposed to the results for property offenses, the two population variables tend to have significant effects on violent crime. In particular, a higher percent of blacks is associated with more violence in all models. The observed effect for racial composition contradicts the expectation that the often observed association between the size of the black population and crime is due fully to black-white differences in community disadvantage. (We will assess further the role of racial composition in the interaction models presented below.) Also in contrast to property crimes, age plays a significant role in three of the five violent crime models. Yet strikingly, these significant effects are in the opposite direction than expected; a larger young male population is associated with a lower level of violent crime. This counterintuitive finding apparently is not due to multicollinearity (bivariate correlations with other independent variables are all less than .5).

Turning to the central issue here, the models also show that the disadvantage measures have strikingly different effects for violent than for property crime. Particularly noteworthy is the fact that for *violent* crime the differences in rates across low, high, and extremely disadvantaged neighborhoods are consistent with Wilson's thesis. For all indicators except male joblessness, the difference in criminal violence between communities with high versus extreme disadvantage is substantially greater than the gap in violent crime between low and high disadvantage tracts. For example, the violent crime rate is 3.9 per 1,000 higher in neighborhoods where there are few professionals (i.e., high disadvantage) than in areas where the size of this group is above average (i.e., low disadvantage). This compares to a gap of 7.0 per 1,000 between tracts with few (i.e., high disadvantage) and extremely few (i.e., extreme disadvantage) professionals; this difference is nearly 1.8 times as great as that between the low and high disadvantaged areas. For poverty, female-headed families, and the disadvantage index, the differences in the violent crime gap between low and highly disadvantaged communities and the gap between high and extremely disadvantaged areas are even greater (2.1 to 3.6 times as great). Most striking is the contrast for the disadvantage index. Neighborhoods with high levels of overall disadvantage have violent crime rates that are 3.6 per 1,000 higher than areas of low disadvantage. In contrast, neighborhoods of extreme disadvantage have violent rates that are 16.3 per 1,000 higher than in low disadvantage areas, with the difference in rates between high and extreme being 12.7 per 1,000.

A final distinction of note between the results for violent and property crime is in the degree of explained variance. The  $R^2$  values for the violent crime models (.66 to .72) are much higher than for property crime (.38 to .45).

The patterns for *violent* crime clearly show that the most disadvantaged areas have particularly high levels of violence. However, exploring only *discrete* distinctions across communities ignores the possibility that there is important variation in structural conditions for tracts within the low, high, and extreme disadvantage categories. To address this possibility for violent crime, we

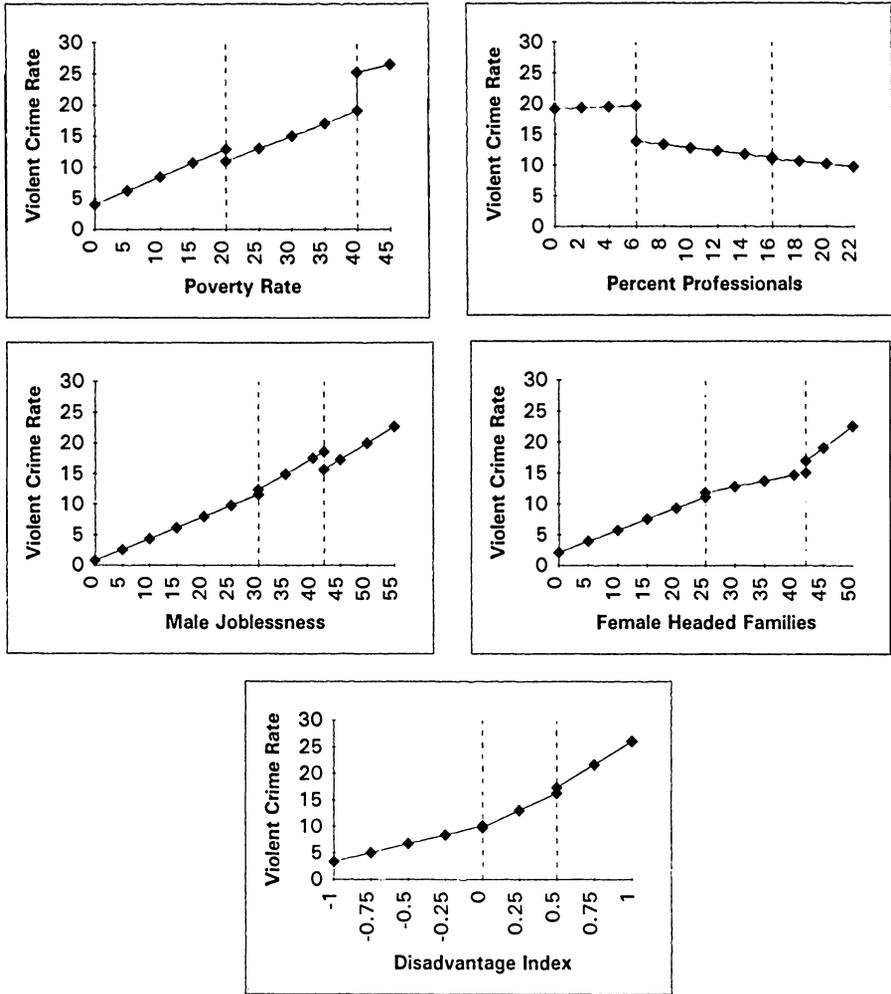
performed analyses specifying that crime rates may differ across the disadvantage categories, and allowing for nonzero and different slopes *within* each of the three categories. Specifically, we add to the dummy variable models three indicators coded as follows: (1) low disadvantage slope — percent disadvantage for low disadvantage tracts and zero otherwise; (2) high disadvantage slope — percent disadvantage for high disadvantage tracts and zero otherwise; and (3) extreme disadvantage slope — percent disadvantage for extreme disadvantage tracts and zero otherwise.<sup>4</sup> This model specification permits us to test the possibility that extreme disadvantage affects violence both by altering the level (as reflected in the effects of the dummy variables) and by heightening the rate at which disadvantage increases violent crime. A comparison of the explained variance for this “dummy-slope” model with that for the dummy variable specification shows that the former provides a superior fit to the data in four of five cases. *F* values for the differences in  $R^2$  between the two models are significant for all of the disadvantage measures except professionals.<sup>5</sup>

The results representing the combination of the discrete distinctions and varying slopes are reported in tabular (Appendix A) and graphical (Figure 1) form. We discuss in detail only Figure 1 because it more clearly illustrates the pattern of results. For each indicator, the figure presents the predicted rates of violence for tracts across varying levels of disadvantage derived from the estimated coefficients shown in Appendix A. In calculating the predicted rates, community instability (vacancy and renters) and population composition (race and young males) are held constant at their mean tract levels (see Table 1).<sup>6</sup>

The findings in Figure 1 provide further insight into the nature of the effects of extreme disadvantage on violent crime. These graphical results are quite consistent with the extreme disadvantage and crime arguments for four of the five indicators. Yet, three different patterns of effects are observed. First for poverty and professionals, the discrete distinctions between extremely disadvantaged and other communities are most evident. For these two factors, extreme neighborhood disadvantage results in very large jumps in violent crime although the slopes for these two factors level off somewhat. Second for female-headed families and the disadvantage index, the pattern of discrete group distinctions does not emerge when we allow for different slopes within categories. However, the slopes themselves show a pattern of increase from low to high and again from high to extreme in the case of the index, and from high to extreme in the case of female-headed families. This latter difference in the effect of increasing disadvantage is particularly dramatic. Last, male joblessness exhibits an essentially linear pattern whereby neither discrete jumps in crime nor notable increases in slopes are evident.

To summarize, the results of Table 2 and Figure 1 make clear that Wilson is correct in arguing that extreme disadvantage provides a distinctly different structural context for crime. However, this context generates especially high levels of violent crime only. And as just shown the violent crime-disadvantage relationship differs depending upon the aspect of social deprivation explored. Still, the overall picture is one that shows violence as especially escalated when disadvantage is particularly widespread.

FIGURE 1: Predicted Violent Crime Rates across Levels of Disadvantage: Census Tracts in Columbus, 1990



RACE AND EXTREME DISADVANTAGE

We now turn to the issue of whether widespread disadvantage explains black-white differences in urban crime.<sup>7</sup> Wilson argues that the effects of disadvantage on crime like those reported here are invariant across race; rather differences in crime are explained by varying levels of disadvantage in black and white communities. To test these ideas, we assess: (1) whether the effect of social disadvantage on crime is the same in predominantly black and white communi-

ties; and (2) whether similarly disadvantaged black and white areas have the same levels of crime. A dummy variable distinguishing predominantly black ( $\geq 70\%$ ) from white ( $\geq 70\%$ ) tracts along with interactions between this variable and the categorical disadvantage factors are included in models to test these hypotheses. We use the dummy variable operationalizations of disadvantage (rather than the dummy-slope specifications) for these interaction models for parsimony in light of the relatively small number of predominantly black tracts.

The results of these interaction models are presented in Table 3. Consistent with the argument that the structural conditions of disadvantage affect black and white communities in the same manner, none of the interactions between neighborhood racial composition and disadvantage is significant.<sup>8</sup> To elaborate, the main effects for the high and extreme disadvantage dummy variables indicate that for white communities the differences in crime follow the patterns observed in Table 2. Property crime rates are significantly greater in high and extremely disadvantaged white communities than in their low disadvantage counterparts; but these rates are not substantially greater in areas of extreme than in those of high disadvantage. The differences in property crime for black communities with different levels of disadvantage are somewhat smaller than in white areas (the slopes of the interactions are generally negative). However, the racial gaps in the effects of disadvantage on property crime are never significant.

For violent crime, white tracts also have significantly higher rates in areas of high and extreme than low disadvantage. Further, for poverty, female-headed families, and the disadvantage index, violence is dramatically higher in white tracts with extreme compared to high levels of disadvantage. Variation in rates across black communities with differing levels of disadvantage are sometimes smaller and sometimes larger than in white areas. But none of the effects of disadvantage on violent crime differ significantly by race of community.

To explore differences in crime between similarly disadvantaged black and white communities, we calculated predicted property and violent crime rates for white and black tracts with low, high, and extreme levels of disadvantage from the interaction models presented in Table 3. The results are shown in Figure 2. The first half of this figure presents the predicted property crime rates and the second half those for violence. Similar to Figure 1, in calculating the predicted rates, we hold vacancy, percent renters, and percent young males constant at their mean tract levels. Comparing similarly disadvantaged white and black tracts indicates that property crime rates tend to be somewhat lower in black than white neighborhoods. However, this racial difference is significant only in the context of communities that have an extremely low number of professionals.<sup>9</sup> The pattern of small differences favoring black communities is particularly noteworthy given that property offenses comprise the bulk of crimes in both types of communities.

The second half of Figure 2 shows that, in contrast, black neighborhoods have somewhat higher *violent* crime rates than white tracts. However, it is important to note that in most cases the differences are not statistically significant. Out of 15 black-white comparisons, only four are substantial enough to reach significance. And among these, only one involves extreme disadvantage. Within black communities with an extremely low number of professionals, the

TABLE 3: Regression of Property and Violent Crime Rates on Disadvantage by Race Interactions: Census Tracts in Columbus, 1990\*

| Panel A: Property Crime Rate (Ln) |                   |                   |                   |                   |                   |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                   | Poverty           | Male<br>Jobless   | Female-<br>Headed | Profes-<br>sional | Dis-<br>advantage |
| Independent variables             |                   |                   |                   |                   |                   |
| High                              | .4628*<br>(.1478) | .4191*<br>(.0911) | .3458*<br>(.1157) | .2029*<br>(.0864) | .4215*<br>(.1346) |
| Extreme                           | .4865*<br>(.2077) | .5051*<br>(.1568) | .5809*<br>(.2198) | .6574*<br>(.1568) | .4984*<br>(.2146) |
| Black tract                       | .1906<br>(.1674)  | -.0035<br>(.4315) | .2056<br>(.3230)  | -.1728<br>(.4449) | .0588<br>(.2684)  |
| High * Black                      | -.3945<br>(.2735) | -.0808<br>(.4610) | -.3103<br>(.3656) | .2585<br>(.4647)  | -.2088<br>(.3348) |
| Extreme * Black                   | -.5279<br>(.3005) | -.2701<br>(.4730) | -.6072<br>(.3956) | -.2508<br>(.4976) | -.3413<br>(.3565) |
| Vacancy rate                      | .0195*<br>(.0113) | .0204*<br>(.0110) | .0228*<br>(.0113) | .0200*<br>(.0107) | .0178<br>(.0118)  |
| Percent renters                   | .0075*<br>(.0023) | .0107*<br>(.0021) | .0062*<br>(.0023) | .0097*<br>(.0022) | .0073*<br>(.0023) |
| Percent young males               | -.0042<br>(.0081) | -.0031<br>(.0065) | .0081<br>(.0067)  | .0030<br>(.0067)  | -.0043<br>(.0080) |
| Constant                          | 3.7805            | 3.5478            | 3.7159            | 3.5635            | 3.7940            |
| R <sup>2</sup>                    | .4030             | .4543             | .4065             | .4316             | .4004             |

average violent crime rate is 27 compared to 15 for white neighborhoods, a difference of 12 per 1,000 population. For the other disadvantage measures, the black-white gap within extreme disadvantage is much narrower ranging from a low of 1 for female-headed families to a high of 6 for poverty. Similarly, small race differentials in violent crime are found within the low and high disadvantage categories.

While these data show that some race differences in *violent* crime persist even within levels of disadvantage, the most important finding shown in these graphs is that race effects tend to be smaller than the effects of disadvantage. This is seen in the fact that black-white gaps in violent crime within each disadvantage category tend to be smaller than within race differences in violence across levels of disadvantage. In fact, violent crime rates for extremely disadvantaged *white* neighborhoods are more similar to rates for extremely disadvantaged *black* areas than to rates for other types of white neighborhoods. Comparing low to high disadvantage, and in turn high to extreme disadvantage, the between-race versus within-race contrasts are not especially large. Yet the black-white differences in violent crime within each level of disadvantage are, with one exception, notably smaller than the crime gaps between low and

TABLE 3: Regression of Property and Violent Crime Rates on Disadvantage by Race Interactions: Census Tracts in Columbus, 1990

| Panel B: Violent Crime Rate |                      |                      |                      |                     |                      |
|-----------------------------|----------------------|----------------------|----------------------|---------------------|----------------------|
| Independent variables       | Poverty              | Male<br>Jobless      | Female<br>Headed     | Profes-<br>sional   | Dis-<br>advantage    |
| High                        | 6.8243*<br>(2.1375)  | 7.0040*<br>(1.3703)  | 4.4128*<br>(1.7621)  | 4.7715*<br>(1.3708) | 5.0566*<br>(2.0273)  |
| Extreme                     | 16.8714*<br>(3.0032) | 14.5310*<br>(2.3593) | 18.5186*<br>(3.3458) | 9.0018*<br>(2.4890) | 17.7260*<br>(3.2326) |
| Black tract                 | 5.3499*<br>(2.4211)  | 2.5804<br>(6.4931)   | 7.9489<br>(4.9179)   | 5.4617<br>(7.0625)  | 3.7641<br>(4.0420)   |
| High * Black                | -.4652<br>(3.9542)   | 2.3612<br>(6.9371)   | -4.5875<br>(5.5668)  | 1.0933<br>(7.3770)  | -1.2585<br>(5.0427)  |
| Extreme * Black             | .5589<br>(4.3446)    | .5795<br>(7.1180)    | -7.4746<br>(6.0237)  | 6.7500<br>(7.8994)  | -1.6397<br>(5.3692)  |
| Vacancy rate                | .7852*<br>(.1641)    | .7877*<br>(.1658)    | .7589*<br>(.1726)    | .9045*<br>(.1700)   | .6122*<br>(.1777)    |
| Percent renters             | .0208<br>(.0332)     | .1058*<br>(.0322)    | .0111<br>(.0353)     | .0752*<br>(.0344)   | .0427<br>(.0341)     |
| Percent young males         | -.2875*<br>(.1164)   | -.1776*<br>(.0985)   | .0872<br>(.1016)     | -.0539<br>(.1056)   | -.3224*<br>(.1209)   |
| Constant                    | 2.4456               | -3.6152              | .2147                | -3.6359             | 2.7497               |
| R <sup>2</sup>              | .6916                | .6948                | .6602                | .6462               | .6640                |

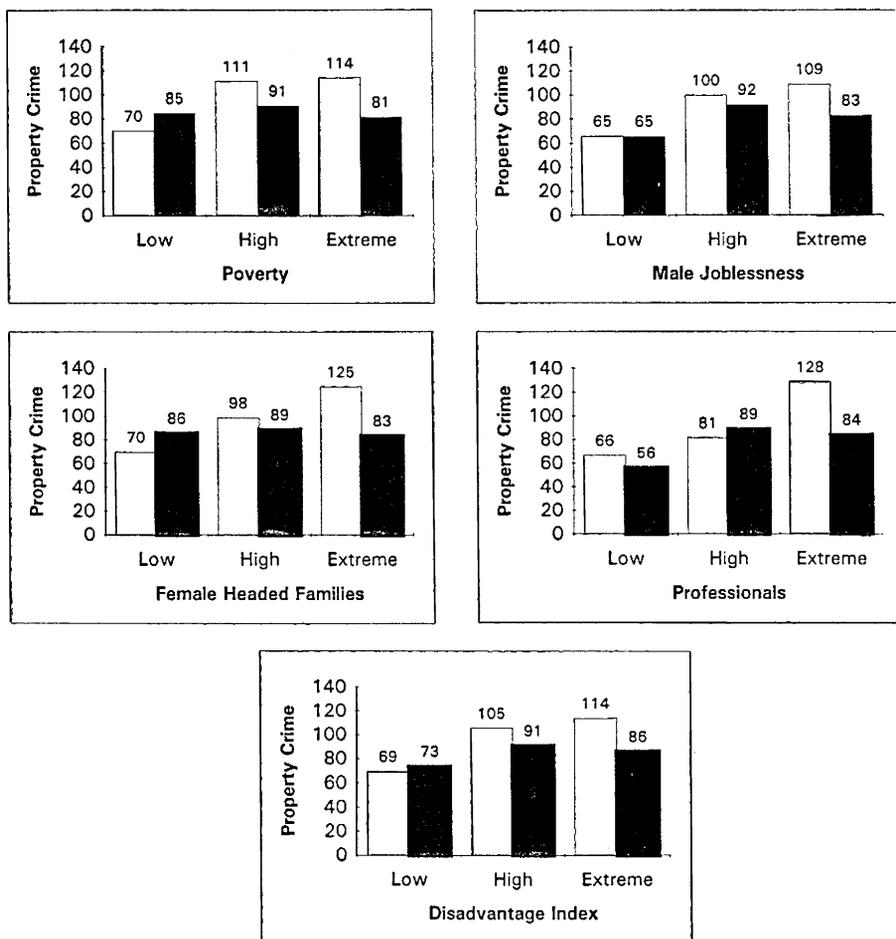
<sup>a</sup> Entries are unstandardized coefficients with standard errors in parentheses.

\*  $p < .05$

extremely disadvantaged communities for either blacks or whites. For example, extremely poor black tracts have a violent crime rate that is 6 per 1,000 higher than in white areas of extreme poverty. There are race gaps of 5 per 1,000 within both high and low poverty areas. Yet among either white or black neighborhoods the violent crime gap between low and extreme poverty is much larger at 16 and 17 per 1,000 for white and black communities, respectively. Thus for four of the five indicators, persons experience much lower levels of violent crime living in *black* communities with low levels of disadvantage than in *either* black or white communities with extreme levels of disadvantage.

These findings indicate that there is a complex relationship among race, structure, and violent crime. On the one hand, Wilson (1987) and Sampson and Wilson (1995) appear to be correct. A large part of the racial difference in crime is due to the fact that whites and blacks often live in structurally distinct communities. To the degree that whites are more likely to live in areas with lower levels of disadvantage and blacks in communities with the highest levels

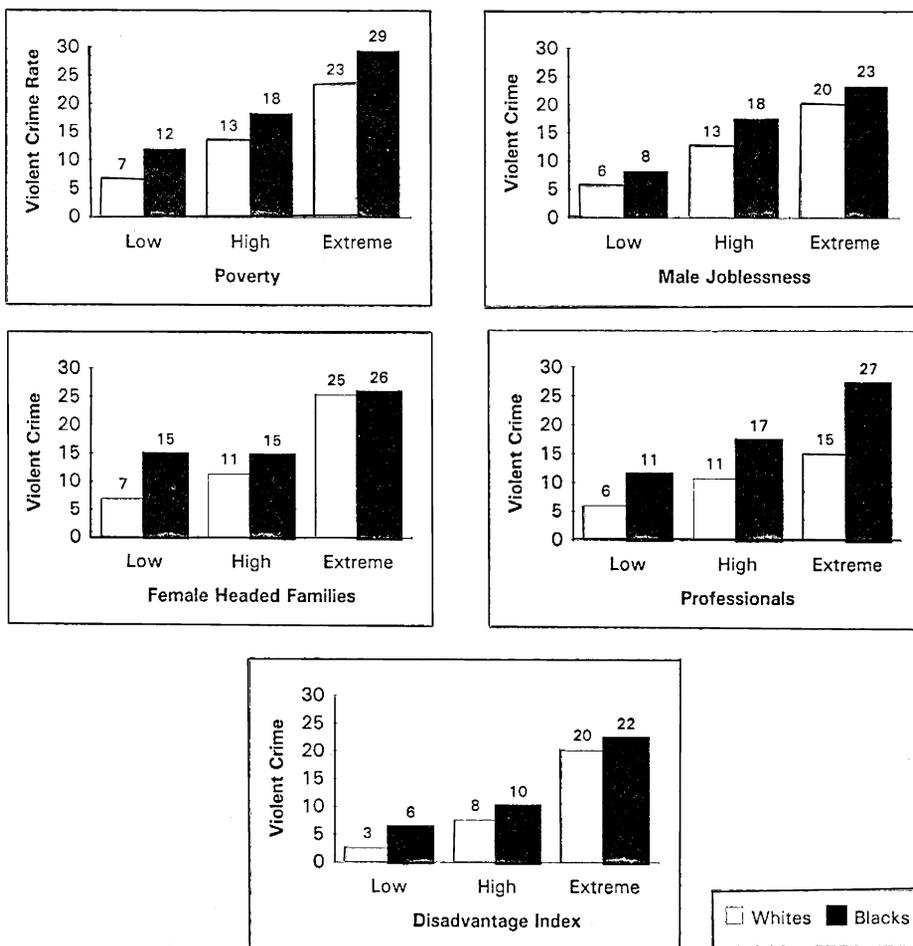
FIGURE 2: Predicted Property and Violent Crime Rates by Level of Disadvantage for White and Black Communities: Census Tracts in Columbus, 1990



of disadvantage, then our results indicate that racial differences in violence are attributed heavily to structural differences in the communities in which they live. On the other hand, whether disadvantage is low, high, or extreme, rates of violence for black areas exceed somewhat those for white communities. Thus, the aspects of social disadvantage considered here are not the only factors contributing to higher rates of black violence.

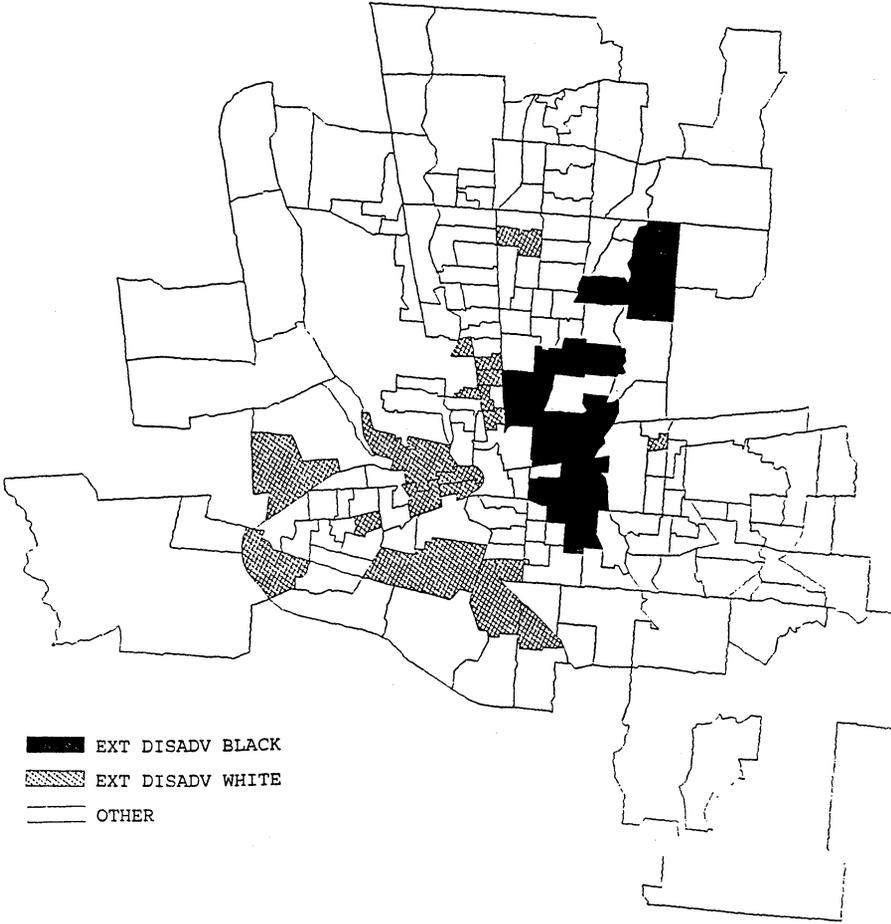
One possibility is that structural factors not explored here account for the remaining differences. Our analysis does not incorporate direct measures of local institutional supports such as churches, schools, and recreation centers. These are

FIGURE 2: Predicted Property and Violent Crime Rates by Level of Disadvantage for White and Black Communities: Census Tracts in Columbus, 1990 (Continued)



some of the mechanisms that Wilson argues explain a large part of the effect of disadvantage on crime. As he notes (Wilson 1987) "the presence of stable working- and middle-class families in the ghetto provides mainstream role models that reinforce mainstream values. . . . But in the final analysis, a far more important effect is the institutional stability that these families are able to provide in their neighborhoods" (144). To the best of our knowledge there is no research indicating whether the prevalence of institutional support mechanisms noted by Wilson differ between white and black communities net of differences

FIGURE 3: Extremely Disadvantaged Black and White Census Tracts:  
Columbus, 1990



in the economic status of areas. However, a comprehensive evaluation of community differences in crime rates should assess directly this argument.

Another structural condition that should be considered is the presence of public housing. There is considerable evidence that family public housing was developed systematically in only black neighborhoods (Bauman 1987; Bickford & Massey 1991; Hirsch 1983; Massey & Denton 1993). Further previous research shows higher levels of crime in and near public housing projects (Newman 1972; Roncek, Bell & Francik 1981; cf., Farley 1982). Therefore, to the extent that public housing has a greater presence in African American communities than in similar

white neighborhoods, incorporating this factor into analyses could help account for the remaining race effects found here.

An alternative explanation of the race difference in violent crime is the spatial proximity of extremely disadvantaged tracts to one another. Given the structure of racial residential segregation in U.S. cities, it is highly likely that disadvantaged black neighborhoods are situated in close proximity to one another forming a larger cluster of extreme disadvantage. By contrast, predominantly white heavily disadvantaged communities may be more dispersed throughout the city and hence be located amidst working and middle class areas. The institutional benefits and resources of these socioeconomically more advantaged communities might spillover to their less advantaged neighbors (e.g., Heitgerd & Bursik 1987). Indeed, this racially patterned geographic distribution of extremely disadvantaged neighborhoods exists in Columbus (Figure 3). Eighty-nine percent of the black tracts that are extremely disadvantaged on at least one dimension form a continuous Black Belt similar to that described for Chicago (Drake & Cayton 1945). White tracts with extreme concentrations of disadvantage are more dispersed. There are several smaller clusters of such white areas, but others are scattered across the city. In short, black and white communities that are internally similar in their socioeconomic conditions are not similarly situated within the urban environment. This difference may explain the net race gap in violent crime.

Divergence in the types of crime that whites and blacks are victimized by could also account for the residual race differential. Victimization data indicate that, among violent crime, robberies are somewhat more likely to be reported than assaults. They also show that a larger share of black than white victims of violence are robbed (U.S. Department of Justice 1993). Thus it is possible that the differentials in crime rates by race reflect, in part, blacks greater involvement in the more heavily reported crimes. Another possibility is that violent offenses occurring in black neighborhoods are detected more commonly because of greater deployment of and surveillance by officers. As some scholars have argued, police actions may be affected by "ecological contamination" whereby police view some areas as involving more crime, and therefore, watch, arrest and take official actions more often (Bittner 1970; Irwin 1985; Sampson 1986; Smith 1986). Given the association between race and crime, such contamination may be more likely in predominantly black than white neighborhoods. To date, there is not much empirical evidence on this issue. However, Smith (1986) did find that the likelihood of police officially reporting an incident increased as percent nonwhite in the neighborhood increased.

Finally, differences in cultural orientations to violence may explain the net black-white gap in violent crime shown in these data. Some have posed that the relationship between the size of the black population and violent crime is due to a black culture of violence where human life is devalued and persons resort to violence as a way of dealing with those who offend them (Curtis 1975; Messner 1983; Wolfgang & Ferracuti 1967). This perspective has been challenged by proponents of structural explanations (e.g., Blau & Blau 1982; Braithwaite 1979; Hawkins 1986). In particular, Sampson and Wilson (1995) and Wilson (1987, 1991) note that cultural differences are themselves adaptations to structural inequity. Still, the persistent racial gap in violence that we have

observed while controlling for structural conditions raises the possibility that cultural factors independently account for a portion of black violence. Therefore, it is important to identify and examine the cultural features that may support violence and explore whether these are more prevalent in black than white communities.

## Conclusions

Wilson (1987) has drawn attention to the growth of truly disadvantaged urban neighborhoods in the U.S. Particularly high levels of crime are among the proposed consequences of this transformation for central city residents. In this article, we addressed two questions related to the consequences of urban disadvantage. First, do extremely disadvantaged neighborhoods have *unusually* high rates of crime? Second, is structural disadvantage equally important for determining crime in black and white neighborhoods, and are crime rates similar in equally disadvantaged white and black communities? Addressing the first question entails comparing crime rates across communities distinguished by qualitative differences in levels of disadvantage: low, high, or extreme. Prior research has neither conceptualized nor empirically evaluated the relationship between disadvantage and crime using the discrete distinctions among communities that are central to Wilson's discussion. Addressing the second issue sheds light on Sampson and Wilson's (1995) contention that the causes of crime are rooted in the structural differences among communities rather than in race/culture. Scholars have been unable to examine this issue because white neighborhoods typically do not have high rates of poverty and disadvantage.

Our analysis explored these questions for local areas in Columbus, Ohio — a city with a relatively large number of predominantly black and predominantly white high poverty neighborhoods. Our findings underscore the importance of: (1) exploring the effects of qualitative distinctions in levels of disadvantage on crime; and (2) comparing black and white communities to test the claim that differences in structural context are crucial for explaining racial differences in crime. Indeed, we show that extremely disadvantaged communities have qualitatively higher levels of crime than less disadvantaged areas, and that this pattern holds for both black and white communities.

However, these important general conclusions must be qualified. First, the role of extreme disadvantage is limited to its impact in producing especially heightened levels of violent (not property) crime. There are two reasons why this might be the case. To the extent that this effect is an adaptive response involving greater posturing for defense and more frequent carrying of weapons, it is reasonable that violent but not property offenses would become more widespread in extremely disadvantaged communities. Also reported property crimes might not be equally intensified in the most disadvantaged areas because the residents have much less of value to steal and little to gain by reporting such thefts (i.e., most stolen property is not recovered and residents are unlikely to have property insurance). In the routine activities framework, these settings lack attractive targets (Cohen & Felson 1979; Felson 1987).

Second, our findings differ somewhat depending upon the type of disadvantage considered. Recall that urban scholars emphasize four components of disadvantage that are related to dislocation (poverty, family disruption, male joblessness, and a lack of persons in high-status occupations). These dimensions clearly overlap and create statistical problems from multicollinearity, and conceptual difficulties in distinguishing their effects. We addressed this problem by examining each construct separately and by combining their indicators into an index of disadvantage. The latter is a solution to multicollinearity that sometimes is advocated by researchers (Land, McCall & Cohen 1990; Messner & Golden 1992).

Our results show that the distinct effects of extreme disadvantage on violent crime are captured using a combined index. However, doing so masks some of the subtle distinctions in the way different aspects of disadvantage affect violence. With regard to the prevalence of female-headed families, the rate of increase in violent crime (i.e., the slope) is notably greater when the percent of such families is extremely high rather than high or low. But net of these varying slopes, discrete jumps in crime are not observed across community types. In contrast, when areas become extremely impoverished or extremely void of individuals with high-status occupations, violent crime rates increase to distinctively high levels, but relatively more poverty or fewer professionals makes little difference in increasing crime to an even higher rate. Finally, the widely discussed importance of male joblessness in contributing to crime appears to result from the continuation of a linear effect of this factor rather than to a qualitatively different impact of very widespread male joblessness.

In addition to the implications for understanding the disadvantage-crime relationship, the differential effects of aspects of disadvantage shed light on a broader question: does neighborhood disadvantage exacerbate social problems through the presence of negative social influences, or through the absence of positive role models? In particular, Brooks-Gunn et al. (1993) have assessed whether the prevalence of low-status characteristics (poverty, male joblessness) and/or the presence of persons with high-status attributes (high family income, employed professionals and managers) influence forms of social dislocation among children and adolescents (i.e., teenage childbearing, dropping out of high school, and child behavior problems). They find that the presence of affluent families and absence of professional or managerial workers are crucial for explaining child and teen behaviors while neighborhood poverty and male joblessness are not. Based on these findings, they conclude that such forms of social dislocation are tied to the presence of resources and affluent role models rather than to the influence of factors like poor families and unemployed males. The impact of percent professionals on community violent crime found here is consistent with the argument that neighborhoods incur benefits from high-status individuals. At the same time, the effects of poverty and male joblessness underscore the importance for communities of negative influences that encourage criminal behavior. In short, our research suggests that *both* the absence of positive *and* the presence of negative influences contribute to crime as a form of social dislocation.

Finally, our analysis is instructive regarding the comparative role of social disadvantage in white and black neighborhoods. Overall, average property and

violent crime rates are substantially higher in black communities. However, disadvantage has the same patterns of effects on crime in white and black neighborhoods. Hence crime rates for racially distinct areas generally approach one another when structural conditions are controlled. These patterns are particularly striking for violent crime. Gross rates of violence are nearly three times as high in black as in white neighborhoods, but the net race difference in violent crime is small and nonsignificant for the vast majority of contrasts between similarly disadvantaged communities. And even when race differences persist, residents confront much less violence in black neighborhoods with low disadvantage than in either black or white communities with extreme disadvantage. Taken as a whole, these findings clearly substantiate Sampson and Wilson's contention that the sources of crime are invariant across race and are rooted largely in the structural differences among communities.

This work is important for understanding the relationship between extreme disadvantage and crime, but future research should explore some of the factors linking disadvantage with increased crime in the most socially deprived neighborhoods. We argued above that the most disadvantaged neighborhoods have heightened levels of crime because the conditions that encourage criminal behavior are particularly pronounced and mechanisms of social control that discourage crime are particularly lacking. Future research should incorporate more direct measures of these intervening mechanisms. Local institutional supports (e.g., churches, schools, recreation centers) that connect residents to mainstream society, provide role models, and assist in crime control have been given limited attention in neighborhood crime studies. Aspects of formal and informal control including policing, neighborhood watches, and types and levels of informal supervision also warrant study. Carrying weapons and other adaptive responses to a climate of disadvantage and violence that may further encourage crime require particular consideration in light of recent ethnographic research (Anderson 1990, 1994; Massey 1995; Sanchez-Jankowski 1991). Analyses also should explore the impact of public housing and the more specific spatial patterning of disadvantage on crime.

Along different lines, Sampson and Wilson view inequitable structural *changes* in the urban environment as a key to the breakdown of communities that has led to increased crime and violence. While we were able to explore cross-sectional variation in the relationship between structural inequity and crime in a single urban context, our data do not allow us to examine the dynamic aspects of these processes. Future research should address these dynamic components of the theoretical model.

Although our investigation has not addressed all the important linkages connecting social disadvantage with crime, it emphasizes that extreme disadvantage is uniquely consequential in producing the very heightened levels of criminality found in some inner-city neighborhoods. Importantly, this is the case whether communities are predominantly white or black. High racial residential segregation means that urban blacks and whites live in different neighborhoods that tend to have divergent levels of social status and disadvantage. This study of racially distinct neighborhoods demonstrates that it is these differences in disadvantage that explain the overwhelming portion of the difference in crime, especially criminal violence, between white and African American communities.

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.

## Notes

1. Most of the excluded units are split tracts that are almost entirely in a suburban community and dip only very slightly over the city line. Hence, the size of the city population in these tracts is quite small. Other excluded tracts, including the downtown area, simply have small residential populations. Three additional tracts are excluded not because of size but because their population resides predominantly in institutions or group quarters (e.g., prisons, college dormitories).

2. We also explored the effect of residential mobility and found that this variable was not significant when included along with rental occupancy and the vacancy rate. Most likely this is due to strong multicollinearity with the other community instability variables. Rental occupancy and vacancy were included in the final models because they exhibited more consistent effects.

3. Although we have reservations about treating family disruption as an endogenous variable, we did conduct analyses including it in this manner. We found that incorporating the percent female-headed families as a mediating factor diminishes the effects of other structural conditions, e.g., poverty, male joblessness. To evaluate more fully our concern, we also explored models that treated each measure of disadvantage as an endogenous variable. These analyses showed that any one of these indicators similarly weakened the effects of the other disadvantage measures; this included family disruption when it was considered exogenous and another aspect of disadvantage as endogenous. In addition, factor analyses of the four disadvantage measures suggest that they all reflect the same underlying construct (see discussion below). As such, it seems more appropriate to treat female-headed families along with the other disadvantage variables as exogenous. Future research should pursue the collection of data providing more direct indicators of the mediating factors between all aspects of disadvantage and crime.

4. This type of specification follows that suggested by Goodman (1979) for exploring alternative forms of the relationship between education and earnings. Note that we report below findings from this type of analysis for violent crime only. Although we did not find support for our hypotheses concerning the effect of disadvantage on *property* crime, we did estimate the dummy-slope model just described for these offenses. The results of these analyses are not reported because they confirm our earlier finding that extreme disadvantage does not contribute to particularly heightened levels of property crime.

5. The  $F$  statistics for the differences in the  $R^2$  values between the dummy-slope and dummy variable models of violent crime are as follows: 6.6 ( $p < .001$ ) for poverty, 7.5 ( $p < .001$ ) for male joblessness, 12.6 ( $p < .001$ ) for female-headed families, 1.6 ( $p > .05$ ) for percent professionals, and 10.4 ( $p < .001$ ) for the disadvantage index.

6. In examining the results in Appendix A, it is important to note that strong multicollinearity among the dummy variables and the within category slope variables produces inflated standard errors for many of the coefficients. As such, the significance of individual parameters is not especially meaningful. However, the coefficients themselves remain unbiased and hence interpretable. Therefore, the predicted crime rates derived from these coefficients (see Figure 1) also are interpretable.

7. Without controlling for structural differences, there are relatively large gaps between the crime rates of predominantly black and white communities. This is especially true for violent crime. Average property crime rates for white and black tracts, respectively, are 81.6 and 96.8 per 1,000 population. Comparable figures for violent crime are 7.9 and 23.5 per 1,000.

8. The main effect and interaction terms are sometimes highly collinear in these models. To assess whether multicollinearity produced inflated estimates of the standard errors and hence affected the significance of the interaction and main effect parameters, we examined the collinearity diagnostic statistics discussed by Belsley, Kuh, and Welsch (1980) — condition

APPENDIX A: Regression of Violent Crime Rate on Dummy and Slope Measures of Disadvantage: Census Tracts in Columbus, 1990<sup>a</sup>

|                     | Poverty             | Male<br>Jobless      | Female-<br>Headed     | Profes-<br>sional  | Dis-<br>advantage    |
|---------------------|---------------------|----------------------|-----------------------|--------------------|----------------------|
| High                | -1.0870<br>(5.6470) | -4.0425<br>(9.2248)  | 4.9163<br>(7.4239)    | 1.0935<br>(4.3688) | -.3395<br>(2.0340)   |
| Extreme             | 11.2807<br>(9.1388) | -7.6701<br>(10.1460) | -14.3943*<br>(6.8879) | 4.7979<br>(7.1885) | -1.4304<br>(3.9453)  |
| Low slope           | .4417*<br>(.1148)   | .3606*<br>(.1076)    | .3587*<br>(.1216)     | -.2084*<br>(.1097) | 6.7131*<br>(3.0279)  |
| High slope          | .4022*<br>(.1814)   | .5207*<br>(.2553)    | .1908<br>(.2289)      | -.2633<br>(.2399)  | 13.0154*<br>(6.9374) |
| Extreme slope       | .2474<br>(.1730)    | .5382*<br>(.2017)    | .6958*<br>(.1221)     | .0834<br>(1.4807)  | 17.3819*<br>(3.4861) |
| Vacancy rate        | .7291*<br>(.1348)   | .8146*<br>(.1391)    | .7845*<br>(.1412)     | .9020*<br>(.1538)  | .6292*<br>(.1396)    |
| Percent renters     | .0022<br>(.0274)    | .1049*<br>(.0288)    | -.0245<br>(.0301)     | .0743*<br>(.0307)  | .0198*<br>(.0273)    |
| Percent black       | .0589*<br>(.0207)   | .0701*<br>(.0213)    | .0104<br>(.0284)      | .1106*<br>(.0227)  | .0460*<br>(.0221)    |
| Percent young males | -.4185*<br>(.0976)  | -.1708*<br>(.0962)   | .0632<br>(.0915)      | -.0514<br>(.1018)  | -.1904*<br>(.0966)   |
| Constant            | .5393               | -10.9494             | -3.2577               | 1.4832             | 4.8504               |
| R <sup>2</sup>      | .7496               | .7226                | .7221                 | .6653              | .7444                |

<sup>a</sup> Entries are unstandardized coefficients with standard errors in parentheses.

\* p < .05

indices and variance decomposition proportions. These indicate that none of the parameter estimates in the interaction models are degraded by the presence of multicollinearity, i.e., all condition indices are far below 30 (the highest is only 16).

9. The significance of the race gaps in property crime within high and extreme disadvantage categories were assessed by estimating models in which the disadvantage reference category was alternately switched from low to high to extreme. In each case, the t-value for the main effect of the black tract dummy variable tests the significance of the race-crime gap in the omitted disadvantage category. The same procedure was used to test for the significance of the race differences in violent crime within levels of disadvantage described in the following paragraph.

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