

Deindustrialization, Disadvantage and Suicide among Young Black Males

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Abstract

Wilson's deindustrialization thesis has been the focus of much recent research. This study is the first to empirically test his thesis as it relates to suicide among young black males, which has increased dramatically over the past two decades. Using 1998-2001 Mortality Multiple Cause-of-Death Records and 2000 census data, we examine the influence of concentrated disadvantage on suicide among young black males across U.S. cities. After establishing its role in shaping suicide rates, we explore the extent to which industrial composition (the outcome of deindustrialization) affects concentrated disadvantage in urban communities. We perform similar analyses for whites to compare and contrast explanatory processes. Our findings show that while disadvantage is related to suicide for young black and white males, industrial composition only influences the structural covariates of suicide among blacks. These findings demonstrate the ability of Wilson's thesis to help explain a pressing social problem – rising rates of young black male suicide.

Wilson's (1987, 1996) deindustrialization thesis has been the focus of much recent research (Crutchfield 1989; Ousey 2000; Sampson and Wilson 1995; Wadsworth 2004). Wilson argues that widespread economic transitions since the 1960s have altered the socioeconomic structure of American inner cities. Significant declines in manufacturing work, and its replacement with less stable and poorly compensated service sector employment, have led to racially segregated communities often characterized by acute poverty, joblessness, and a sense of alienation from mainstream society. These worsening conditions, in turn, have produced a variety of social ills. Most frequently documented is the strong association between structural disadvantage and crime in urban environments – typically poor black communities (Krivo and Peterson 1996; Kubrin and Wadsworth 2003; Kubrin and Weitzer 2003; Sampson 1987). Very few studies, however, have assessed the relationship between structural disadvantage and another social ill – suicide. Yet a significant increase in the number of suicides committed by young African American males since the 1980s indicates that greater attention to possible connections between macro-social characteristics and suicide among this population is warranted. From 1980-1995 suicide rates among males ages 15-19 increased by 146 percent for blacks but only 22 percent for whites (CDC 1998:194) and from 1980-1992, the percentage increase in suicide among young black males was more than six times greater than the increase for young black females (CDC 1995). These statistics suggest that causal processes may be gender- and race-specific. The present study examines these issues in a number of ways. First, we discuss the structural and cultural implications of acute disadvantage on the black community, with special attention paid to the group with the highest suicide rate – young black males. In this discussion we focus on how

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social integration, a major inhibitor to suicide, may be affected by concentrated disadvantage and related characteristics. Second, we empirically examine the association between concentrated disadvantage and young black male suicide across U.S. cities. And third, we explore the extent to which the industrial composition of a city, as well as changes in industrial composition over the past two decades, affect concentrated disadvantage in urban black communities. We perform similar analyses for whites to compare and contrast explanatory processes. Ours is the first study to empirically test Wilson's thesis with respect to suicide.

Integration and Suicide

In *Suicide* (1897) Durkheim theorized that "suicide varies inversely with the degree of integration of the social groups of which the individual forms a part." (1951, p. 209) Accordingly, suicide is hypothesized to be lower in communities that feature a high degree of marital, religious or familial integration, compared to communities characterized by excessive individualism. Central to Durkheim's theory is the notion that social integration acts as a form of social control or regulation over individuals. When individuals drift without a sense of belonging or community they become isolated and the social ties that might otherwise inhibit suicidal tendencies are weakened. This idea forms the basis for the social integration-regulation thesis.

Scholars have examined the relationship between aggregate rates of suicide and various measures of social and economic cohesion including family integration (Stafford and Gibbs 1988; Stockard and O'Brien 2002), religious homogeneity (Ellison et al. 1997), economic convergence and inequality between races (Burr et al. 1999; South 1984), and cohort size (Stockard and O'Brien 2002). Regardless of measure, integration is consistently found to affect suicide rates as the social integration-regulation thesis predicts.¹

For example, Stockard and O'Brien (2002) find that suicide varies inversely with family stability; members of cohorts with more non-marital births are at greater risk for suicide throughout their lives. More importantly, according to the authors, increases in non-marital births are most responsible for recent spikes in youthful suicide. Burr et al. (1999) report similar findings specifically for black males. Suicide for this population is associated with high rates of marital disruption and greater percentages of female-headed households. And findings from Stafford and Gibbs (1988) lend further support for the effects of marital integration, with one important caveat – after controlling for occupational integration, marital integration is less relevant for suicide. While this may call into question the marital integration-suicide relationship, Wilson (1987) asserts that both types of integration are interrelated within the social and economic structure of a community. Employment has been viewed as a precursor for marriage and as such, communities with fewer job opportunities may also have lower marriage rates.

Ellison et al. (1997) focus on religious homogeneity defined as "the extent to which community residents adhere to a single religion or a small number of faiths." (p.76) They find that religious homogeneity is negatively associated with suicide, even after controlling for family and economic integration. Other aggregate measures of religious integration, such as church membership, are also negatively related to suicide, at least for black males (Burr et al. 1999:1061).

Another approach researchers have used to test the social integration-regulation thesis considers the role of economics as an integrating (or isolating) force. These researchers study the effect of economic convergence or its opposite, inequality, on suicide rates. With respect to socioeconomic status inequalities between blacks and whites, Burr et al. (1999) find that higher levels of inequality result in greater suicide risk among black males. Consistent with Durkheim's concept of anomie, the authors suggest that "blocked opportunities within a climate of higher expectations about increased opportunity lead to a greater probability of

violence.” (p. 1054) South (1984), on the other hand, examined whether economic convergence between whites and non-whites from 1949-1979 influenced each group’s suicide rates. In contrast to Burr et al. (1999), he found that “diminishing racial income inequality fails to impact either the white male or the white female suicide rates, but as expected, tends to raise the suicide rates of both non-white males and non-white females.” (p. 178) Although South (1984) maintains that this finding supports Jedlicka et al.’s (1977) claim that “the racial convergence in suicide rates is another and less welcome indication of black assimilation in the general stream of American society,” (1984:173) three methodological issues must be noted. (1) Few structural characteristics were controlled for in the study, potentially resulting in missing variable bias. (2) Aggregating to the national level may disguise important regional or city-specific heterogeneity. (3) Using the measure of median income may oversimplify the role of convergence. Still, findings from both studies point towards the importance of economic factors as integrative forces.

While integration has been conceptualized in a variety of different ways in studies that explore Durkheim’s propositions, collectively, this body of research offers support to the integration-suicide thesis. This is important when one considers that over the past 40 years, industrial restructuring has resulted in significant changes within black urban communities in the United States, with potential consequences for community integration. We turn now to a discussion of such changes, their consequences for community integration, and the potential effect such forces may have on suicide among young black males.

Deindustrialization and Concentrated Disadvantage in the Inner City

Beginning in the 1960s, a general decline in urban manufacturing industries led to a significant reduction in labor market opportunities available to less educated urban residents. African American city dwellers, who had fewer resources and faced discrimination in both job and housing markets, were especially affected. Individuals that once worked in well-paid, semi-skilled manufacturing jobs found themselves unemployed or working parttime in retail stores, restaurants and other service sector jobs that paid less, offered few benefits or promotional opportunities, and were less secure.

In addition to the “individual-level effects” of unemployment and employment in less desirable jobs, labor market shifts within some communities created “concentration effects” by altering the economic well-being of the community as well as the distribution of human activity. According to Wilson (1987, 1996) and Sampson and Wilson (1995), these changes were detrimental to family formation, community participation and the support of local institutions such as schools, churches and community centers. The negative consequences of the growing deprivation of many residents encouraged those who could afford to leave to do so. The exodus of working- and middle-class black families into the suburbs and surrounding areas excelled this downward spiral into joblessness, economic despair and the subsequent disorganization of the inner city. As Wilson (1987:57) explains “in ghetto neighborhoods that have experienced a steady out-migration of middle- and working-class families – communities...that lack a social buffer – a sudden and/or prolonged increase in joblessness creates a ripple effect resulting in an exponential increase in related forms of social dislocation.” The social and economic implications of these shifts were calamitous for the already disadvantaged members of the community. Prior to the 1970s, middle- and working-class residents acted not only as the economic backbone of inner-city businesses and organizations but also as role models and mentors for younger generations. Their presence in disadvantaged neighborhoods ensured that educational, religious and civic organizations were maintained, and supportive networks were formed within the community.

Perhaps one of the most perceptible indications of the diminishing social organization in the inner cities is the breakdown of the black family unit. Prior to the 1970s, two-parent households were far more prevalent. In 1965, about 25 percent of all black households were headed by women; this figure grew to 45 percent in 2000 (U.S. Census 2002). The correlation between a diminished structure of opportunity and an increase in single-parent households is not difficult to comprehend. With so few legitimate jobs available, the pool of marriageable or employed men declined significantly, making marriage a less viable option for many women. Between 1970 and 1980, the number of black children growing up in fatherless families increased by 41 percent (Wilson 1987:70). Some scholars argue that family disruption has resulted in weakened community networks and informal social control (Sampson 1987).

Suicide and the Cultural Implications of Structural Disadvantage

A concentration of single family-households, poverty and unemployment, coupled with the social isolation that characterizes many inner-city neighborhoods has created an environment in which the tendency toward deviant, anti-social behavior is high (Almgren et al. 1998; Anderson 1999; Sampson and Wilson 1995). It is not hard to imagine that the same environmental factors found to be associated with externalized violence (Krivo and Peterson 1996; Kubrin and Wadsworth 2003; Kubrin and Weitzer 2003; Sampson 1987; Wadsworth and Kubrin 2004) might correspond to violence turned toward the self. To understand the relationship between structural disadvantage and suicide, it is necessary to consider the structural and cultural implications of these dire conditions, particularly among the younger generation of blacks who have been faced with persistent disadvantage throughout their lives.

Scholars assert that acute structural disadvantage leads to social isolation (Anderson 1999; Bruce et al. 1998; Krivo and Peterson 1996) – defined by Wilson (1987:60) as “the lack of contact or of sustained interaction with individuals and institutions that represent mainstream society.” The interaction between structural disorganization and cultural social isolation in the determination of deviant behavior is emphasized by Sampson and Wilson (1995) who claim that, “Structurally disorganized communities are conducive to the emergence of cultural value systems and attitudes that seem to legitimize... crime and deviance.” (p. 50)

Along these lines, scholars have found that the alienation of the black poor from mainstream society has resulted in the emergence of a subculture within urban ghettos, often characterized by hostility, aggression and a general devaluation of human life (Anderson 1999; Kubrin and Weitzer 2003; Sampson and Wilson 1995). It is not argued that the oppositional subculture is a consequence of the racial make-up of a given locality, but rather as Bruce et al. (1998:32) articulate, it is a “manifestation of local structural conditions and general levels of opportunity.”

Social isolation and the experience of living within the confines of extremely disadvantaged environments have been shown to create an acute sense of hopelessness among inner-city youth (Anderson 1999; Bruce et al. 1998; Sampson and Wilson 1995). With fewer organizational institutions such as churches, businesses or community-based programs, youths coming of age in this environment frequently lack the structure or opportunities that give them a sense of purpose in their lives. Specifically for young black men living in the inner city, the frustration of being unable to assert their manhood through legitimate structures, coupled with the persistent threat of interpersonal violence, can create a profound sense of despair. Growing up in an environment filled with violence and aggression can lead to psychological states such as nihilism (Bruce et al. 1999). Nihilism and a lack of hope for the future are key determinants of the relationship between structural disadvantage and suicide for young black males. Often, children living in acutely disadvantaged, isolated communities acquiesce to their bleak futures with a sort of grim

acceptance. Of their sense of mortality, Anderson (1999:135) writes, "One must understand that some young people bereft of hope for the future have made their peace with death and talk about planning their own funerals... The high death rate among their peers keeps many from expecting to live beyond age twenty-five." Not surprisingly, residents living in these environments are more prone toward deviant behavior, including drug use, teenage pregnancy and most notably, interpersonal violence. We suggest that these environmental forces can also lead to higher rates of suicide.

The lack of opportunity within disadvantaged areas has resulted in a sort of adaptive strategy on the part of its inhabitants. The adaptations employed by men and women are key to understanding why structural conditions may particularly influence black male suicide rates. For the generation of young men living in urban ghettos, the implications of structural disadvantage are especially hard to rectify. Whereas women may use motherhood as a means of developing supportive social networks, the pressure on young men to assert their independence and strength often leaves them unable to seek emotional support from others. Young men fail to establish the same social bonds or sense of purpose through fatherhood (Anderson 1999). And poverty, joblessness and the lack of social capital deprive young men of the "traditional way of proving their manhood – by supporting a family." (Anderson 1999:177) Moreover, studies suggest that black families and other institutions provide differential levels of support and positive reinforcement for black male and female adolescents with consequences for deviant behavior, ideas in line with social learning theory (Akers 1985). For example, studies of black families show that boys are disciplined more harshly, trained for independence earlier, and positively reinforced for adolescent aggression and sexuality (Gibbs 1988:84). In addition, differential reinforcement by teachers in schools and differential treatment by police, employers and other gatekeepers of society factor in. This pervasive and persistent differential treatment results in less nurturance, fewer social supports, lower levels of positive reinforcement and fewer opportunities for black males than black females.

While community organization and strong neighborhood role models once helped to establish a sense of cohesion and normative values that served to deter anti-social behavior, their presence in urban ghettos has faded in the past several decades (Anderson 1999; Wilson 1987). For the younger generation growing up in these environments today, there is little in the community that offers them a sense of purpose or a connection to mainstream society; consequently, nihilism has become a side effect of living against a backdrop of persistent socioeconomic despair.

The relationship between structural disadvantage, cultural isolation and externalized violence is one that has been demonstrated clearly in previous research but fewer studies exist which examine how these factors may relate to violence turned toward the self in the form of suicide. Yet today suicide among young black males is at an all-time high. The present study determines whether and to what extent an association exists between structural disadvantage and young black male suicide. That a connection may exist is suggested by results from one recent study of Chicago neighborhoods. Almgren et al. (1998) find that suicide rates for young adult black males are positively associated with a secular decline in the economic opportunity structure.

In addition to testing a disadvantage-suicide relationship, the study contributes to the literature in other ways. There are some noted limitations in the suicide literature: (1) Race has been seriously understudied (Stack 1996:405). (2) Little sociological research has dealt with the greater incidence of youth suicide (Stockard and O'Brien 2002:607). (3) There is limited knowledge as to geographic variations in suicide rates (Willis et al. 2002:917). This research addresses each of these points by examining the effect of structural characteristics on city-level suicide counts disaggregated by race, gender and age. In particular, we argue that variation across metropolitan areas in the suicide levels of young black males can be

explained, in large part, by structural characteristics associated with acute disadvantage. This argument leads to the following hypothesis:

(1) Cities with greater levels of disadvantage will have higher suicide rates among young black males, controlling for other socio-economic characteristics.

Although social isolation is not empirically measured in the analysis, it serves as the rationale behind the hypothesized disadvantage-suicide relationship, as discussed above. We also argue that industrial composition and changes in industrial composition are directly related to concentrated disadvantage, which leads to second and third hypotheses:

(2) Cities dominated by individuals employed in manufacturing or "good" jobs, compared to less-desirable service sector jobs, will experience lower rates of black economic disadvantage.

(3) Cities that experienced an increase between 1980 and 2000 in the percentage of employed individuals working in manufacturing jobs will witness lower levels of concentrated disadvantage among blacks.

To test these hypotheses we present two sets of models. The first set measures the effects of economic disadvantage on suicide. The second examines whether static levels and changes in industrial composition influence disadvantage. We perform similar analyses for whites to compare explanatory processes.

Data and Methods

Dependent Variables

We collected data on suicide from the Mortality Multiple Cause-of-Death Records provided by the Centers for Disease Control and Prevention, National Center for Health Statistics (NCHS). Included in the file are data records indicating a cause of death and location for each death that occurred in the United States. We selected out those cases where the cause of death was listed as a suicide. In the study we focus on suicide among young black males ages 15 to 34. We focus on young black males for two important reasons. First, Wilson's thesis is particularly relevant for this population (Wilson 1996:30). Second, researchers studying suicide argue that this group's relatively high rates are of particular concern among public health officials (Burr et al. 1999:1056; Gibbs 1997:69).

We aggregated the suicide data to the city-level, the unit of analysis of the study. The city is the most appropriate level of aggregation for four reasons. (1) Given the process by which MSAs (a larger level of aggregation) are designated, these units can be very heterogeneous. Indeed, in their analysis, Burr et al. (1999) include a percentage urban variable to control for the wide variation in urban and rural territories that exists in many of the MSAs. Cities, on the other hand, are more homogeneous. (2) Suicide, and particularly black suicide, is more likely to occur in urban areas (Stack 1997). For example, in 2000, the rate of suicide for young black males living in large cities (greater than 100,000 population) was 31 percent higher than for young black males living in other areas. (3) Kowalski, Faupel and Starr (1987:85) find that

sociological variables in urban counties tend to have much stronger explanatory power than in rural or middle-urban counties and conclude that sociological explanations for suicide apply primarily to urban environments. (4) Wilson's argument applies to blacks in urban settings. To ensure reliable estimates, we included only those cities with 100,000 population or more ($n = 219$). Twenty-four cities did not report any mortality data during the study time period and were eliminated from the analyses, resulting in a final sample size of 195 cities.²

One potential concern is the validity of official suicide statistics, in particular, underreporting due to possible misclassification (Warshauer and Monk 1978). However, Pescosolido and Mendelsohn (1986) analyzed sets of independently collected suicide data for county groups, evaluating the impact of underreporting suicide on standard suicide correlates, and they found that the relationships among these variables and official suicide data were not appreciably altered in terms of direction and magnitude of effects as a result of underreporting. Thus, we argue that official suicide data are sufficiently accurate to permit analysis (Burr et al. 1999:1069; Cutchin and Churchill 1999:103; Gibbs and Martin 1964; Kowalski, Faupel and Starr 1987:89; Marshall 1981). Following common practice (Burr et al. 1999:1056; Cutchin and Churchill 1999:102; Kowalski, Faupel and Starr 1987:90), we use total suicide counts computed over a four-year period (1998-2001) to account for the relatively rare nature of suicide and to minimize the impact of annual fluctuations.

Even after aggregating the data over a four-year period, suicide is a rare event and many cities have few incidents. Including cities with no or few suicides results in a heavily skewed distribution, which violates the assumptions of ordinary least squares regression. For this reason we employ an alternative approach discussed in Osgood (2000), which has been used in recent suicide (Burr et al. 1999) and homicide research (Kubrin 2003; Kubrin and Wadsworth 2003; Wadsworth and Kubrin 2004). We use suicide counts instead of rates and employ Poisson regression models. Given over dispersion in the data, the negative binomial variant of Poisson regression is used. As recommended by Osgood (2000:33), we include the log of the city's young black and young white male populations as exposure variables (populations at risk) and constrain these coefficients to equal 1. Controlling for population size in this way is comparable to analyzing rates.

Independent Variables

We regress suicide counts on the structural characteristics of U.S. cities. Information on structural characteristics comes from the 2000 census. The characteristics chosen reflect both our interest in modeling Wilson's deindustrialization thesis and our attempt to incorporate key variables from the aggregate suicide literature. Structural variables specific to the black analyses include the number of blacks, the number of young black males ages 15-34, black mobility (percentage of blacks ages 5 and older who have moved in the past five years), racial segregation (Index of Dissimilarity), percentage of black male joblessness (percentage of black males ages 16 and older not working), black median family income, percentage of black poverty, percentage of black high school graduates, and percentage of black single female households with children under 18 years. There are also five measures of racial inequality that reflect black-white differences in education (ratio of percentage of whites to blacks who have graduated from high school for their respective populations aged 25 and older), income (ratio of white to black median family income), unemployment (ratio of black to white employment rates), joblessness (ratio of black to white joblessness rates), and poverty (ratio of black to white poverty rates). Incorporating multiple forms of inequality represents an improvement over previous research that uses more limited measures (Burr et al. 1999; South 1984). Although Wilson's argument underscores the role of absolute

deprivation, we include the inequality measures because they have been found to influence black suicide rates in previous research (Burr et al. 1999; South 1984).

Structural variables specific to the white analyses include the number of whites, the number of young white males ages 15-34, white mobility (percentage of whites ages 5 and older who have moved in the past five years), percentage of white single female households with children under 18 years, percentage of white male joblessness (percentage of white males ages 16 and older not working), white median family income, percentage of white poverty, and percentage of white high school graduates.

Finally, we also include non-race specific measures in the analyses: total population size, region of country (Northeast, Central and West with South as the reference category), percentage black, percentage Hispanic, and industrial composition (defined as the number of employed individuals working in durable and non-durable manufacturing industries divided by the number of employed individuals working in retail, wholesale and the manufacturing industries) (Wadsworth 2004). This measure reflects the proportion of jobs available to young males that are more likely to be stable, well-paid and that offer opportunities for advancement. We also include a measure that captures the change in industrial composition from 1980 to 2000 – the increase or decrease in stable, better paying jobs. These measures represent a key component of both the deindustrialization thesis and dual labor market theory.

After running collinearity diagnostics, we determined that including many of these variables as independent predictors in the models would be problematic due to the high correlations between them. Guided by previous research (Burr et al. 1999) we performed factor analysis with varimax rotation separately for blacks and whites. For blacks, the factor analysis generated two indices that capture black disadvantage and racial inequality between blacks and whites. The following variables loaded strongly on the African American disadvantage index (factor loadings follow in parenthesis): percentage black male joblessness (.81), black median family income (-.88), percentage black poverty (.90), percentage black high school graduates (-.84), and percentage black single female households (.75). This factor had an eigen value of 5.42. The second index, racial inequality, with an eigen value of 1.61, is comprised of the ratio of white to black high school graduation rates (.61), ratio of white to black median family income (.66), ratio of black to white poverty rates (.80), ratio of black to white unemployment rates (.82), and the ratio of black to white joblessness rates (.78). Black disadvantage and racial inequality are used with total population, blacks, black mobility, white-black dissimilarity, northeast, central and west to predict young black male suicide.³

Factor analysis for whites produced similar results. The white disadvantage index had an eigen value of 3.32 with the following variables loading on the index: percentage white male joblessness (.83), white median family income (-.86), percentage white poverty (.85), percentage white high school graduates (-.85), and percentage white single female households (.67). This factor is used with total population, whites, white mobility, northeast, central and west to predict young white male suicide.

Findings

Descriptive Statistics

Means and standard deviations for all variables are presented in Table 1. Average four-year suicide counts for young males were 8.8 for blacks and 23.2 for whites.⁴ Mean city population was 357,596 with an average of 20 percent blacks and 19 percent Hispanics. About 34 percent of the cities were located in the western, 20 percent in the central, 34 percent in the

Table 1: Variable Names, Descriptions and Descriptive Statistics

	Mean	S.D.
Race-Specific Young Male Suicide Counts		
Young Black Male Suicide Counts, Ages 15-34	8.8	16.4
Young White Male Suicide Counts, Ages 15-34	23.2	24.5
Non-Race-Specific Structural Variables		
Population of City:	357,596	681,005
% Northeast (0 = No, 1 = Yes)	12	33
% Central (0 = No, 1 = Yes)	20	40
% West (0 = No, 1 = Yes)	34	48
% South (0 = No, 1 = Yes)	34	47
% Black in Population	20	19
% Hispanic in Population	19	19
Industrial Composition: percentage of workers in manufacturing relative to the number of retail, wholesale and manufacturing employees		
	43	11
1980-2000 Percentage Change in Industrial Composition	-3	6
Structural Variables for Black Analyses		
Black Population	78,853	183,873
Young Black Male Population	11,265	25,882
Black Mobility: % that moved in the past 5 years	57	10
Racial Segregation: white/black index of dissimilarity	46.45	17.14
<i>Variables Loading on Black Disadvantage Factor</i>		
% Black Male Joblessness	42	10
Black Median Family Income	\$35,589	\$11,638
% Black Poverty	24	9
% Black High School Graduation	77	9
% Black Single Female Households with Children	31	8
<i>Variables Loading on Racial Inequality Factor</i>		
White/Black HS Graduation Rate	1.13	.13
White/Black Median Family Income	1.72	.44
Black/White Poverty Rate	2.70	.84
Black/White Unemployment Rate	2.49	.83
Black/White Joblessness Rate	1.35	.28
Structural Variables for White Analyses		
White Population	164,996	239,868
Young White Male Population	24,495	34,593
White Mobility: % that moved in the past 5 years	48	7
<i>Variables Loading on White Disadvantage Factor</i>		
% White Male Joblessness	31	6
White Median Family Income	\$58,503	\$14,181
% White Poverty	9	4
% White High School Graduation	87	7
% White Single Female Households	9	2

southern, and 12 percent in the northeastern states. The average percentage of employed individuals working in manufacturing industries was 43 percent and the average change in this measure from 1980 to 2000 was a decrease of 3 percent.

Examining the variables for the black suicide analyses, cities had on average 78,853 blacks and 11,265 young black males. Forty-two percent of the black males were jobless, 77 percent of the black population had graduated from high school, 31 percent of black families with children under 18 were headed by a single female, and 57 percent of the black population had moved within the previous five years. Average median black family income was \$35,589, and 24 percent of black families were living in poverty. The average index of dissimilarity score was 46.45. Finally, the average values for the racial inequality variables were as follows: white/black high school graduation rate (1.13), white/black median family income (1.72), black/white poverty rate (2.70), black/white unemployment rate (2.49), and black/white joblessness rate (1.35).

Turning to variables for the white analyses, the average city had 164,996 whites and 24,495 young white males, a 31 percent rate of white male joblessness, and a white family poverty rate of 9 percent. On average, 87 percent of whites had graduated from high school, 48 percent of the white population had moved in the past five years, and 9 percent of the families with children under 18 were headed by single females. The average median income for white families was \$58,503.

Structural Characteristics and Suicide among Young Black Males

Table 2 displays the negative binomial regression results revealing the structural factors associated with young black male suicide. Other than being located in the central states, black disadvantage – comprised of joblessness, median family income, poverty, high school graduates and single female households – is the only significant predictor. Cities with greater levels of concentrated disadvantage among blacks experience greater numbers of young black male suicides, a finding consistent with Wilson's argument. While disadvantage and segregation often have similar effects on black urban ills, the latter was not significant in this analysis, consistent with Almgren et al. (1998:1489) and Burr et al. (1999:1065). Racial inequality and mobility also are not related to young black male suicides in large U.S. cities.

As discussed above, concentrated disadvantage is not randomly distributed – it is the result of macro-economic forces, such as industrial composition, and the influence these forces have on local economies. To explore static and dynamic effects of industrial composition on more proximate predictors of suicide, we regressed the black disadvantage factor on the two industrial composition measures as well as other exogenous structural characteristics. Table 3 displays the results from this analysis. The findings show that industrial composition and changes in industrial composition significantly influence black concentrated disadvantage. Cities dominated by individuals employed in manufacturing or "good" jobs, compared to less-desirable service sector jobs, experienced lower rates of poverty, joblessness, female-headed households and higher income and educational attainment, which in turn, decreased the number of suicides among young black males. Moreover, cities that experienced an increase in the percentage of employed individuals working in manufacturing jobs from 1980-2000 also enjoyed lower levels of concentrated disadvantage.⁵ Black disadvantage was additionally influenced by percentage of the population that was black and Hispanic, as well as geographic location, with the northeast and central cities experiencing greater disadvantage levels and the West experiencing lower levels.

For comparison purposes we performed similar analyses for whites. First we regressed young white male suicide counts on city-level variables and then we examined the influence

Table 2: Predictors of Young Black Male Suicide Counts^a

Variables	Regression Results
Black Disadvantage	.138* (.070)
Black/White Inequality	.031 (.045)
White/Black Dissimilarity	-.006 (.005)
Black Mobility	-.291 (.680)
Population (LN)	.063 (.076)
Blacks (LN)	-.023 (.071)
Northeast	-.137 (.141)
Central	.205* (.094)
West	.148 (.127)
Constant	-7.269*** (.734)
# Young Black Males	(exposure)
χ^2	20.60
P	.000
-2 LL	-412.132

* $p < .05$ ** $p < .01$ *** $p < .001$

^a Entries are unstandardized coefficients followed by standard errors in parentheses.

Table 3: Predictors of Black Disadvantage^a

Variables	Regression Results
	-.207**
Industrial Composition	-1.977 (.583)
1980-2000 Change in Industrial Composition	-.166* -2.578 (1.173)
	-.039
Population (LN)	-.05 (.084)
	.259**
% Hispanic (LN)	.216 (.067)
	.509***
% Black	2.677 (.431)
	.373***
Northeast	1.107 (.224)
	.211**
Central	.515 (.186)
	-.184*
West	-.385 (.170)
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Constant	1.428 (1.143)

Adjusted R square = .39

* p < .05 ** p < .01 *** p < .001
^aEntries are standardized coefficients followed by unstandardized coefficients and standard errors in parentheses.

Table 4: Predictors of Young White Male Suicide Counts^a

Variables	Regression Results
White Disadvantage	.191*** (.034)
White Mobility	-.853 (.495)
Population (LN)	-.047 (.072)
Whites	.077 (.076)
Northeast	-.824*** (.116)
Central	-.170* (.081)
West	.054 (.064)
Constant	-6.701*** (.482)
# Young Black Males	(exposure)
χ^2	157.65
P	.000
-2 LL	-618.743

* p < .05 ** p < .01 *** p < .001

^a Entries are unstandardized coefficients followed by standard errors in parentheses.

Table 5: Predictors of White Disadvantage^a

Variables	Regression Results
	.026 .241 (.623)
Industrial Composition	
	-.096 -1.502 (1.253)
1980-2000 Change in Industrial Composition	
	-.186** -.254 (.090)
Population (LN)	
	.266** .223 (.072)
% Hispanic (LN)	
	.439*** 2.325 (.461)
% Black	
	.458*** 1.367 (.239)
Northeast	
	.325*** .798 (.199)
Central	
	.089 .187 (.182)
West	
	— 2.752* (1.222)
Constant	

Adjusted R square = .31

* p < .05 ** p < .01 *** p < .001
^aEntries are standardized coefficients followed by unstandardized coefficients and standard errors in parentheses.

of industrial composition and other exogenous variables on disadvantage.⁶ The results for the first regression are displayed in Table 4. For the most part, the findings for whites are identical to those for blacks. In particular, disadvantage – comprised of joblessness, median family income, poverty, high school grads and single female households – significantly increased young white male suicides.⁷

While the findings for blacks and whites look quite similar when suicide counts are regressed on the structural characteristics of cities, when we examine the influence of industrial composition on white disadvantage the findings point to an important divergence. The results of this analysis are displayed in Table 5. Unlike for blacks, neither industrial composition measure has an effect on white disadvantage and thus cannot be linked to patterns of suicide among young white males. To confirm the divergent effects of the industrial composition measures on race-specific deprivation we used the equation $t = b_1 - b_2 / \div (SEb^2 + SEb^2)$ (Paternoster et al. 1998) to test for significant differences between the coefficients across the samples. The results demonstrate that the observed difference is statistically significant for the static ($t = -2.48, p < .01$) but not the dynamic measure. With the exception of population, which significantly decreases white, but has no effect on black disadvantage, all other variables have similar effects across the race-specific samples.

Discussion and Conclusion

Collectively, these findings suggest that the deindustrialization thesis, as outlined by Wilson (1987, 1996) and others (Anderson 1999; Crutchfield 1987; Wadsworth 2000; 2004), is quite useful for explaining city-level variation in young black male suicide. The results demonstrate that just as black concentrated disadvantage has been shown to increase violent crime and other social ills, it also significantly increases suicide among young black males. As a lack of social integration may be at the root of these social pathologies this, perhaps, should not be a surprising finding. Over a century ago, Durkheim (1897) argued that integration was inversely related to the suicide rates of European countries and states. Building upon Wilson's thesis, we suggest that the same can be said for contemporary American cities. In the current work, we propose that joblessness, poverty, educational failure and family disruption are important indicators of social integration (or a lack thereof) in African American urban communities. These factors influence, and are in part the result of, the degree to which young black males are able to successfully establish age-appropriate pro-social roles and positions. When conditions hinder their ability to do so, research finds that violent behavior, drug abuse and now suicide, are more likely.

Apart from regional location, none of the other variables we examined influenced young black male suicide. Previous research suggested the potential importance of racial inequality (Burr et al. 1999) yet it was not a significant predictor in our models. The competing relevance of inequality vs. absolute deprivation has a long history in criminology with some evidence that both are important covariates of violent crime (Blau and Blau 1982; Jacobs and Wood 1999; Messner and Golden 1992; Wadsworth and Kubrin 2004). While we do not claim to have resolved the issue for the study of suicide, our analysis uses well-established measures to represent both concepts. The results suggest that concentrated deprivation, reflecting economic and educational disadvantage as well as family disruption, matters while inequality does not. Why might this be? Drawing on the ideas of Durkheim as well as others who stress the importance of inequality (Blau and Blau 1982; Jacobs and Wood 1999), race-based disparity in resource allocation may act to unify an ill-treated group in the face of a common enemy and thus act as an integrating, rather than alienating, force. If this is the case, we would expect inequality to have an inhibitive, not aggravating, effect on young black male suicide –

similar to the explanation Durkheim offered for the low suicide rate among European Jews at the end of the 19th century. Along these lines, previous research reporting inequality as a significant predictor of young black male suicide may have suffered from missing variable bias. As high levels of inequality correspond with disadvantage (the two indicators are related), inequality may appear to be influential when key indicators of cumulative disadvantage are excluded from the model.

In extending Wilson's thesis we also suggested that residential segregation may contribute to the isolation of black communities and thus increase suicide. The results did not support this proposition, a finding consistent with Almgren et al. (1998) and Burr et al. (1999). However, we believe this is understandable given a more nuanced reading of the deindustrialization thesis. Residential segregation is an important result of shifts in labor market opportunities. Neighborhoods that are segregated – and thus more homogenous with respect to employment opportunities and educational achievement – offer fewer informal social networks that can be utilized to access jobs, housing and other resources. In other words, residential segregation contributes to the cycle of concentrated poverty and deprivation by limiting access to tools for social mobility. However, once poverty and disadvantage are considered, segregation may not have a direct effect on levels of community integration, and therefore would not influence suicide.

While Wilson's thesis focused specifically on black communities, it is important to note his argument that the primary causes of urban social ills are racially invariant and can be traced to the structural conditions of localities. (See also Sampson and Wilson 1995.) In their study of extreme disadvantage and violent crime, Krivo and Peterson (1995) found support for this argument and our findings also support this contention as it relates to internalized violence. The structural characteristics that influenced suicide among young white males were almost identical to those that influenced suicide among young black males – concentrated disadvantage and location in the central states.

Wilson's thesis, however, goes beyond the role of deprivation in determining the development and persistence of social and psychological pathologies. He identified deindustrialization as the root cause of concentrated poverty, joblessness, educational failure and single-parent households, all of which give rise to, and maintain a variety of, social ills. Wilson argued that the process of deindustrialization was especially detrimental to black communities due to their historical involvement in manufacturing industries, lower rates of educational achievement, higher levels of poverty and residential concentration in central cities. While it is not possible to measure the process of deindustrialization with cross-sectional data, following previous research (Crutchfield 1989; Wadsworth 2004) we measured the main outcome of the process – industrial composition and changes in industrial composition. When examining black deprivation, Wilson's claim is supported. Cities with higher percentages of employed individuals working in manufacturing industries (compared to retail and wholesale industries) and cities that experienced an increase in percentage from 1980 to 2000 had significantly lower levels of concentrated black disadvantage, which, in turn, resulted in fewer suicides among young black males. Also consistent with Wilson's thesis, urban industrial composition was not found to affect white disadvantage.

This study makes a number of important contributions. Foremost, while much of the suicide literature has focused on individual-level predictors, we have demonstrated the importance of concentrated disadvantage in explaining suicide across a large sample of cities. In so doing, we have linked the social integration/regulation thesis with the work of those who focus on contemporary issues in disadvantaged, urban, and often minority neighborhoods. This connection both theoretically and empirically extends our understanding of the structural correlates of suicide. Second, consistent with the arguments of criminologists, we have demonstrated that the impact of these structural forces is racially invariant. The macro-level

covariates of suicide rates are virtually identical for black and white young males. Lastly, by extending our analysis to focus on how industrial composition influences the structural covariates of suicide, we have demonstrated the ability of Wilson's thesis to help explain a pressing social problem – young black male suicide.

The current study also raises some important issues to be addressed in future research. One issue concerns the dynamic process of deindustrialization. With this process the economic base and labor market structure of the U.S. economy has shifted significantly. The outcomes of deindustrialization, such as concentrated disadvantage, are also dynamic as they continue to respond to a variety of social forces. The most appropriate methodological approach for studying the effects of this process is longitudinal in nature. Our study takes a step in this direction by modeling changes in industrial composition, but a time series analysis would help specify the exact nature of these relationships. A more thorough examination of the dynamic relationship between industrial composition, disadvantage and suicide is necessary for furthering our understanding of the social forces of suicide.

An interesting question has to do with overall levels of suicide for blacks and whites. If disadvantage increases young male suicide, and blacks experience higher levels of disadvantage, why are white suicide rates, despite a drastic increase in black rates over the past two decades, still higher? Researchers have offered a variety of responses to this question, many of which point back to the role of integration. Aside from disadvantage, there are other factors that may encourage community integration and create or reinforce norms against suicide. Scholars have suggested that extended family networks, church participation and community involvement historically have mitigated the anomic effect of disadvantage in black communities (Gibbs 1997). More than 20 years ago, Davis (1980:228) wrote:

For blacks, the stresses and anxieties that might lead to suicide have often been offset by strong family and communal ties. Effectively denied all other mechanisms to compensate for rejection and abuse, blacks have in the past used their families, communities, and institutions (i.e., churches, social clubs, fraternal organizations, etc.) to develop positive and functional forms of response to recurrent stressful social situations.

In their interviews with black church leaders in a southeastern city, Early and Akers (1993) found that many black pastors viewed suicide as a "white thing" foreign to black culture. Interviewees suggested that this cultural message stemmed from a history of religion, oppression, hardship and moral values. Some went so far as to suggest that blacks who did commit suicide were those more integrated into white culture – a view taken by some scholars as well (Davis 1980; Jedlicka et al. 1977; South 1984). Consistent with these findings, Ellis and Range (1991) discovered that black college students scored significantly higher in certain sections of the Reason For Living Inventory (Linehan et al. 1983); specifically, blacks more strongly endorsed the importance of "survival and coping" and "moral values" as reasons to live.

While Wilson suggests that integrative institutions such as church, extended family and social organizations are declining as a result of deindustrialization, it may be possible that their influence is still stronger in black communities than in white communities, or that the cultural messages they have created among blacks have survived (or have declined more slowly) resulting in lower suicide rates. Examining these inhibiting factors, and the degree to which they are influenced by structural forces, is clearly an important avenue for future research.

Notes

1. It is important to recognize the comprehensive literature on integration and suicide that exists at the individual level. Studies by Stack (1990; 1996), Watt and Sharp (2002), and Perez-Smith et al. (2002) – to name just a few – all show support in varying ways for the social integration-regulation thesis. These and other individual-level studies are not reviewed in the paper given its aggregate focus.
2. We checked for outliers in the regression analyses and deleted two cases (cities) with standardized residuals more than three standard deviations from the mean: El Monte, CA and Overland Park, KS. We reran the analyses without those cases and the results did not change. We also examined other influence statistics (e.g., Cook's D and Standardized DFBETAs), which did not indicate any problematic outliers. We therefore retain all cases for the analyses.
3. A remaining issue has to do with potential collinearity among the racial inequality and disadvantage factors – two economic measures. Correlations between the components that make up each factor, however, are not high suggesting that collinearity is not a problem. To further verify this, we ran the regressions and obtained collinearity diagnostics. Based on VIF scores for the racial inequality and disadvantage measures, there is no evidence of collinearity (no VIF score was above 2.0).
4. Based on the four years of data, the average annual rate of young male suicide per 100,000 is 21.75 for blacks and 25.75 for whites.
5. We also examined whether industrial composition had a direct effect on suicide counts, or an indirect effect that was mediated by disadvantage. The findings did not support either of these possibilities.
6. As there are no cities in the United States where whites are more disadvantaged than blacks (Sampson and Wilson 1995:42) and no theoretical rationale for why racial inequality would influence suicide among the more advantaged group, the racial inequality variable is not included in the white analyses.
7. Since Wilson's argument stresses the role of acute disadvantage, we determined whether the relationship between disadvantage and suicide was nonlinear for blacks and whites. First, we created a multiplicative term for disadvantage (disadvantage*disadvantage) and included it in the regression analyses along with the disadvantage factor. Second, we created a dummy variable that captured whether each city was at the extreme of disadvantage (i.e., in the top 20%). Adding either variable did not significantly improve the model for blacks or whites.

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