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Author(s): Douglas S. Massey
Source: *American Journal of Sociology*, Vol. 96, No. 2 (Sep., 1990), pp. 329-357
Published by: The University of Chicago Press
Stable URL: http://www.jstor.org/stable/2781105
Accessed: 23-02-2017 17:37 UTC

American Apartheid: Segregation and the Making of the Underclass[1]

Douglas S. Massey
University of Chicago

This article argues that racial segregation is crucial to explaining the emergence of the urban underclass during the 1970s. A strong interaction between rising rates of poverty and high levels of residential segregation explains where, why, and in which groups the underclass arose. This argument is developed with simulations that replicate the economic conditions observed among blacks and whites in metropolitan areas during the 1970s but assume different conditions of racial and class segregation. These data show how a simple increase in the rate of minority poverty leads to a dramatic rise in the concentration of poverty when it occurs within a racially segregated city. Increases in poverty concentration are, in turn, associated with other changes in the socioeconomic character of neighborhoods, transforming them into physically deteriorated areas of high crime, poor schools, and excessive mortality where welfare-dependent, female-headed families are the norm. Thus, policies to solve the socioeconomic problems of minorities will fail unless they are accompanied by measures for overcoming the disadvantages caused by racial discrimination and prejudice in the housing market.

By any measure, the character of American poverty changed significantly during the 1970s. The poor became poorer relative to the rest of society, and income inequality increased (Levy 1987). Poverty became more persistent as spells increased in frequency and duration among families (Bane and Ellwood 1986; Corcoran et al. 1985; McLanahan, Garfinkel, and Watson 1988). Poverty also became more geographically concentrated within inner-city neighborhoods (Bane and Jargowsky 1988; Massey and Eggers 1990). These trends were especially acute for blacks and

[1] This research was supported by NICHD grant HD-24041, whose contribution is gratefully acknowledged. I also thank Nancy A. Denton for preparing the empirical regressions used in this analysis. Requests for reprints should be sent to Douglas S. Massey, Population Research Center, NORC/University of Chicago, 1155 East 60th Street, Chicago, Illinois 60637.

0002-9602/91/9602-0003$01.50

Puerto Ricans, prompting some observers to posit the existence of a new, spatially isolated underclass of persistently poor minority families (Glasgow 1981; Auletta 1982).

William J. Wilson (1987) has proposed a theory to explain the apparent rise of this minority underclass. He argues that powerful economic and demographic forces transformed the social environment of the inner city during the 1970s. The decline of manufacturing, the suburbanization of blue-collar employment, and the rise of the service sector eliminated many well-paying jobs for unskilled minorities and reduced the pool of marriageable men, thereby undermining the strength of the family, increasing the rate of poverty, and isolating many inner-city residents from accessible, middle-class occupations. At the same time, the expansion of civil rights generated new opportunities for middle-class blacks, who moved out of the ghetto in large numbers, leaving behind an isolated and very poor minority community without the institutions, resources, and values necessary for success in modern society (Wilson 1987, pp. 55–58).

My purpose in this article is to supplement Wilson's theoretical argument by introducing residential segregation as a key conditioning variable in the social transformation of the ghetto and to illustrate the crucial role it plays in concentrating poverty and creating the underclass. I agree with Wilson's main argument—that poverty concentration has increased in U.S. cities, with pernicious consequences for minorities. I disagree, however, with his hypothesis that this transformation was brought about by the exodus of middle-class minority members from the ghetto and with his argument that industrial restructuring, in and of itself, was responsible for concentrating urban poverty. While these processes may have exacerbated poverty concentration, neither was necessary for its creation. In the absence of racial segregation, the economic dislocations of the 1970s would not have produced concentrated poverty or led to the emergence of a socially and spatially isolated underclass.

Although some middle-class blacks were spatially mobile during the 1970s, empirical results are inconsistent with the view that they left the ghetto in large numbers. First, levels of racial segregation in large urban areas are high and show little sign of decline (Massey and Denton 1987, 1988). Second, as education and income rise, the degree of black segregation does not fall (Denton and Massey 1988*a*). Third, although the degree of segregation between poor and rich blacks increased slightly during the 1970s, it is still *lower* than that observed between the poor and rich of other minority groups (Massey and Eggers 1990). Finally, multivariate models show that recent changes in the propensity for upper- and lower-class blacks to live in different neighborhoods are unrelated to levels and trends in black poverty concentration (Massey and Eggers 1990).

In contrast, empirical research confirms Wilson's hypothesis that pov-

erty concentration increased dramatically during the 1970s, particularly for blacks outside the West and Hispanics in the Northeast (Massey and Eggers 1990). Instead of being caused by the departure of middle-class blacks from the ghetto, however, these developments are explained statistically by a strong interaction between the level of segregation and changes in the structure of the income distribution. Groups that experienced both a high poverty rate and a high degree of residential segregation (e.g., blacks and Puerto Ricans) showed the highest levels of poverty concentration, and the degree of poverty concentration rose most dramatically in urban areas where a sharp downward shift in the income distribution occurred in a highly segregated environment (e.g., Chicago and New York).

In this article I explicate these statistical findings and illustrate the mechanism by which segregation acts to concentrate poverty. I show that a sharp increase in a group's poverty rate inevitably produces concentrated poverty when it occurs under conditions of high segregation—an outcome that occurs without the movement of middle-class minority members from the ghetto. I then illustrate how an increase in poverty concentration radically transforms the social and economic environment of poor neighborhoods to instigate a series of self-reinforcing changes that lead to the creation of underclass communities.

HOW SEGREGATION CONCENTRATES POVERTY

In order to demonstrate the effect of segregation on the concentration of poverty, I construct a hypothetical city of 128,000 people distributed among 16 equal-sized neighborhoods of 8,000 persons each (see fig. 1). The city contains 32,000 blacks and 96,000 whites: a minority proportion of 25%. The black population is poorer, on average, than the white population and has a poverty rate of 20%, compared with only 10% for whites. This idealized picture approximates the situation in many American cities circa 1970. In Chicago, for instance, blacks constituted 17% of the metropolitan population and had a poverty rate of 20%, compared with 6% for whites; likewise, in the New York metropolitan area, blacks constituted 17% of the population and their poverty rate was 21%, compared with 10% for whites (Massey and Eggers 1990). For the moment, we assume there is no class segregation between poor and nonpoor members of either racial group.

Figure 1 shows what happens to the degree of poverty concentration experienced by blacks and whites at different levels of racial segregation when group poverty rates and sizes are held constant. The figure depicts four hypothetical cities that are identical except for the degree of residential segregation they impose on blacks. Segregation levels range from

CITY 1: NO RACIAL SEGREGATION

b_i=2000 w_i=6000 1	b_i=2000 w_i=6000 2	b_i=2000 w_i=6000 3	b_i=2000 w_i=6000 4
b_i=2000 w_i=6000 5	b_i=2000 w_i=6000 6	b_i=2000 w_i=6000 7	b_i=2000 w_i=6000 8
b_i=2000 w_i=6000 9	b_i=2000 w_i=6000 10	b_i=2000 w_i=6000 11	b_i=2000 w_i=6000 12
b_i=2000 w_i=6000 13	b_i=2000 w_i=6000 14	b_i=2000 w_i=6000 15	b_i=2000 w_i=6000 16

Level of Black Segregation (D_{bw}): 0.000
Neighborhood Poverty for Ave. Black: 0.125
Neighborhood Poverty for Ave. White: 0.125

CITY 2: LOW RACIAL SEGREGATION

b_i=0 w_i=8000 1	b_i=0 w_i=8000 2	b_i=0 w_i=8000 3	b_i=0 w_i=8000 4
b_i=2666 w_i=5334 5	b_i=2666 w_i=5334 6	b_i=2666 w_i=5334 7	b_i=2666 w_i=5334 8
b_i=2666 w_i=5334 9	b_i=2666 w_i=5334 10	b_i=2666 w_i=5334 11	b_i=2666 w_i=5334 12
b_i=2666 w_i=5334 13	b_i=2666 w_i=5334 14	b_i=2666 w_i=5334 15	b_i=2666 w_i=5334 16

Level of Black Segregation (D_{bw}): 0.333
Neighborhood Poverty for Ave. Black: 0.133
Neighborhood Poverty for Ave. White: 0.122

CITY 3: HIGH RACIAL SEGREGATION

b_i=0 w_i=8000 1	b_i=0 w_i=8000 2	b_i=0 w_i=800 3	b_i=0 w_i=8000 4
b_i=0 w_i=8000 5	b_i=0 w_i=8000 6	b_i=0 w_i=8000 7	b_i=0 w_i=8000 8
b_i=4000 w_i=4000 9	b_i=4000 w_i=4000 10	b_i=4000 w_i=4000 11	b_i=4000 w_i=4000 12
b_i=4000 w_i=4000 13	b_i=4000 w_i=4000 14	b_i=4000 w_i=4000 15	b_i=4000 w_i=4000 16

Level of Black Segregation (D_{bw}): 0.667
Neighborhood Poverty for Ave. Black: 0.150
Neighborhood Poverty for Ave. White: 0.117

CITY 4: COMPLETE RACIAL SEGREGATION

b_i=0 w_i=8000 1	b_i=0 w_i=8000 2	b_i=0 w_i=8000 3	b_i=0 w_i=8000 4
b_i=0 w_i=8000 5	b_i=0 w_i=8000 6	b_i=0 w_i=8000 7	b_i=0 w_i=8000 8
b_i=0 w_i=8000 9	b_i=0 w_i=8000 10	b_i=0 w_i=8000 11	b_i=0 w_i=8000 12
b_i=8000 w_i=0 13	b_i=8000 w_i=0 14	b_i=8000 w_i=0 15	b_i=8000 w_i=0 16

Level of Black Segregation (D_{bw}): 1.000
Neighborhood Poverty for Ave. Black: 0.200
Neighborhood Poverty for Ave. White: 0.100

FIG. 1.—Effect of poverty segregation on poverty concentration in three hypothetical cities containing 16 neighborhoods, 32,000 blacks, and 96,000 whites with respective poverty rates of 20% and 10%.

zero, through low and high levels, to complete separation between the races.

City 1 illustrates the case of no segregation, where two racial groups are evenly distributed throughout the city and each neighborhood has exactly 6,000 whites (w_i) and 2,000 blacks (b_i). In this case, all neighborhoods replicate the racial composition of the city as a whole, so each black lives

in an area that is 25% black and 75% white. Blacks and whites experience the same neighborhood poverty rate, .125, which is a weighted average of the overall black and white rates. With no residential segregation, therefore, both races experience the same geographic concentration of poverty.

City 2 illustrates what happens to the level of poverty concentration when blacks are excluded from some neighborhoods. In this hypothetical city, blacks are barred from the four northernmost neighborhoods, which are set off from the rest of the city by a double line running from east to west. In this and the remaining examples, neighborhoods that exclude blacks are called "white areas" and those that accept blacks are labeled "black areas," even though the latter may contain some white residents. I assume that racial groups are evenly distributed in their respective areas, so that each of the city's white areas contains 8,000 whites and no blacks, and each of its black areas contains 2,666 blacks and 5,334 whites.

The most common measure of racial segregation is the index of dissimilarity (D), which states the proportion of minority members who would have to move to achieve an even settlement pattern (as in City 1). Barring blacks from four neighborhoods (City 2) yields a dissimilarity index of .333. The imposition of even this low level of segregation creates a disparity in the average level of neighborhood poverty experienced by blacks and whites. Each black area is composed of one-third blacks (2,666/8,000) and two-thirds whites (5,334/8,000), giving a total neighborhood poverty rate of $(.333 \times .20) + (.667 \times .10) = .133$ for black neighborhoods. But whereas all blacks experience this higher poverty rate (compared with .125 in an integrated city), only two-thirds of whites do so. The one-third of whites (32,000) who live in all-white areas experience the white poverty rate of .100, yielding an average neighborhood poverty rate for whites of $(.333 \times .10) + (.667 \times .133) = .122$ (see fig. 1, City 2).

When racial segregation is imposed, therefore, some whites are better off, whereas all blacks are worse off. One-third of the whites are able to isolate themselves from the higher rates of black poverty and insulate themselves from the social problems associated with income deprivation (e.g., crime, low housing values, unstable families, delinquency, drug use, etc.). Through racial segregation, the average residential environment of whites improves and the average environment of blacks deteriorates.

Cites 3 and 4 impose successively higher levels of segregation by reducing the number of black areas to eight (yielding a D of .667) and four (giving a D of 1.0), respectively. As segregation increases, the level of poverty concentration among blacks steadily rises while that among whites steadily falls. In City 3, the neighborhood poverty rate for blacks reaches .150 (each black neighborhood is half black and half white, yield-

ing a weighted average split between the black and white rates of .100 and .200). Meanwhile, the average poverty rate in white neighborhoods falls to .117 because two-thirds of the whites (64,000 people) are now insulated from the higher rates of black poverty. When the dissimilarity index reaches 1.0 (City 4), all whites experience the white poverty rate of .100 and all blacks experience the black poverty rate of .200, and their respective poverty concentrations reach their maximum divergence.

This result, however, assumes that there is no segregation by social class within racial groups; that is, poor blacks and whites are assumed to be evenly distributed among black and white neighborhoods. In reality, however, there are rich and poor neighborhoods as well as black and white ones. Figure 2 therefore repeats the analysis under the more realistic assumption of class segregation. For each of the four hypothetical cities, I create a "right" and a "wrong" side of the tracks drawing a line running north-south through the center of town. Poor people are excluded from all neighborhoods east of this line, and although some nonpoor people live west of the line, *all* poor people do so. For simplicity, in segments of the city defined by race and class, I assume that blacks, whites, poor, and nonpoor are evenly distributed.

City 1 of figure 2 illustrates the effect of adding income segregation to a racially integrated residential environment. The black poverty rate of .200 applied to the black population of 32,000 implies the existence of 6,400 poor blacks who are distributed evenly throughout the eight neighborhoods west of the class boundary, yielding 800 poor blacks per area (pb_i). Likewise, a poverty rate of .100 in a population of 96,000 whites implies 9,600 poor whites, giving 1,200 per neighborhood west of the tracks (pw_i). The total population for each neighborhood is still that of figure 1 (2,000 blacks and 6,000 whites), meaning there are 1,200 nonpoor blacks and 4,800 nonpoor whites in each poor neighborhood. On the rich side of town, of course, there are no poor people in any neighborhood. This configuration gives a poor versus nonpoor dissimilarity index of .625 for blacks and .555 for whites, figures lying toward the upper end of the continuum typically observed for class segregation, but within established ranges (Massey and Eggers 1990).

The imposition of class segregation does not change the *average* level of neighborhood poverty experienced by blacks and whites. As is shown in City 1 of figure 2, it is .125 for both groups, just as in figure 1. But this overall index is deceiving because it represents a weighted average of poverty rates experienced by people in poor and nonpoor neighborhoods. On the nonpoor side of town, the neighborhood poverty rate is by definition 0, whereas on the poor side it is .250. Since there is no racial segregation, however, poor blacks and poor whites share this disadvantage equally; both experience a high concentration of poverty, whereas

CITY 1: NO RACIAL SEGREGATION

$pb_i = 800$ $pw_i = 1200$ 1	$pb_i = 800$ $pw_i = 1200$ 2	$pb_i = 0$ $pw_i = 0$ 3	$pb_i = 0$ $pw_i = 0$ 4
$pb_i = 800$ $pw_i = 1200$ 5	$pb_i = 800$ $pw_i = 1200$ 6	$pb_i = 0$ $pw_i = 0$ 7	$pb_i = 0$ $pw_i = 0$ 8
$pb_i = 800$ $pw_i = 1200$ 9	$pb_i = 800$ $pw_i = 1200$ 10	$pb_i = 0$ $pw_i = 0$ 11	$pb_i = 0$ $pw_i = 0$ 12
$pb_i = 800$ $pw_i = 1200$ 13	$pb_i = 800$ $pw_i = 1200$ 14	$pb_i = 0$ $pw_i = 0$ 15	$pb_i = 0$ $pw_i = 0$ 16

Level of Class Segregation for Blacks: 0.625
Neighborhood Poverty for Ave. Black: 0.125
Neighborhood Poverty for Ave. Poor Black: 0.250

Level of Class Segregation for Whites: 0.555
Neighborhood Poverty for Ave. White: 0.125
Neighborhood Poverty for Ave. Poor White: 0.250

CITY 2: LOW RACIAL SEGREGATION

$pb_i = 0$ $pw_i = 1200$ 1	$pb_i = 0$ $pw_i = 1200$ 2	$pb_i = 0$ $pw_i = 0$ 3	$pb_i = 0$ $pw_i = 0$ 4
$pb_i = 1066$ $pw_i = 1200$ 5	$pb_i = 1066$ $pw_i = 1200$ 6	$pb_i = 0$ $pw_i = 0$ 7	$pb_i = 0$ $pw_i = 0$ 8
$pb_i = 1066$ $pw_i = 1200$ 9	$pb_i = 1066$ $pw_i = 1200$ 10	$pb_i = 0$ $pw_i = 0$ 11	$pb_i = 0$ $pw_i = 0$ 12
$pb_i = 1066$ $pw_i = 1200$ 13	$pb_i = 1066$ $pw_i = 1200$ 14	$pb_i = 0$ $pw_i = 0$ 15	$pb_i = 0$ $pw_i = 0$ 16

Level of Class Segregation for Blacks: 0.625
Neighborhood Poverty for Ave. Black: 0.142
Neighborhood Poverty for Ave. Poor Black: 0.283

Level of Class Segregation for Whites: 0.555
Neighborhood Poverty for Ave. White: 0.119
Neighborhood Poverty for Ave. Poor White: 0.250

CITY 3: HIGH RACIAL SEGREGATION

$pb_i = 0$ $pw_i = 1200$ 1	$pb_i = 0$ $pw_i = 1200$ 2	$pb_i = 0$ $pw_i = 0$ 3	$pb_i = 0$ $pw_i = 0$ 4
$pb_i = 0$ $pw_i = 1200$ 5	$pb_i = 0$ $pw_i = 1200$ 6	$pb_i = 0$ $pw_i = 0$ 7	$pb_i = 0$ $pw_i = 0$ 8
$pb_i = 1600$ $pw_i = 1200$ 9	$pb_i = 1600$ $pw_i = 1200$ 10	$pb_i = 0$ $pw_i = 0$ 11	$pb_i = 0$ $pw_i = 0$ 12
$pb_i = 1600$ $pw_i = 1200$ 13	$pb_i = 1600$ $pw_i = 1200$ 14	$pb_i = 0$ $pw_i = 0$ 15	$pb_i = 0$ $pw_i = 0$ 16

Level of Class Segregation for Blacks: 0.625
Neighborhood Poverty for Ave. Black: 0.175
Neighborhood Poverty for Ave. Poor Black: 0.350

Level of Class Segregation for Whites: 0.555
Neighborhood Poverty for Ave. White: 0.108
Neighborhood Poverty for Ave. Poor White: 0.250

CITY 4: COMPLETE RACIAL SEGREGATION

$pb_i = 0$ $pw_i = 1600$ 1	$pb_i = 0$ $pw_i = 1600$ 2	$pb_i = 0$ $pw_i = 0$ 3	$pb_i = 0$ $pw_i = 0$ 4
$pb_i = 0$ $pw_i = 1600$ 5	$pb_i = 0$ $pw_i = 1600$ 6	$pb_i = 0$ $pw_i = 0$ 7	$pb_i = 0$ $pw_i = 0$ 8
$pb_i = 0$ $pw_i = 1600$ 9	$pb_i = 0$ $pw_i = 1600$ 10	$pb_i = 0$ $pw_i = 0$ 11	$pb_i = 0$ $pw_i = 0$ 12
$pb_i = 3200$ $pw_i = 0$ 13	$pb_i = 3200$ $pw_i = 0$ 14	$pb_i = 0$ $pw_i = 0$ 15	$pb_i = 0$ $pw_i = 0$ 16

Level of Class Segregation for Blacks: 0.625
Neighborhood Poverty for Ave. Black: 0.200
Neighborhood Poverty for Ave. Poor Black: 0.400

Level of Class Segregation for Whites: 0.555
Neighborhood Poverty for Ave. White: 0.100
Neighborhood Poverty for Ave. Poor White: 0.200

FIG. 2.—Effect of segregation on poverty concentration in three hypothetical cities, assuming class segregation within racial groups.

wealthier blacks and whites on the nonpoor side of town experience no poverty at all. Since half of each group lives in poor neighborhoods and half lives in nonpoor neighborhoods, the overall neighborhood poverty rate is .125 for both races.

Cities 2–4 (fig. 2) illustrate the effect of increasing racial segregation in a city divided along class lines. The segmentation of the city by class as

well as race creates four types of neighborhoods: poor black areas, poor white areas, "rich" (nonpoor) black areas, and "rich" (nonpoor) white areas. Neighborhoods 1 and 2 represent poor white neighborhoods; they are composed of 1,200 poor whites and 6,800 nonpoor whites, for a poverty rate of .150. Neighborhoods 3 and 4 are rich white areas with poverty rates of 0. Neighborhoods 5–6, 9–10, and 13–14 (to the west of the class line) are poor black neighborhoods that contain all poor blacks and most poor whites. The 6,400 poor blacks are spread evenly throughout the six neighborhoods, yielding 1,066 persons per area, and when added to the 1,200 poor whites, they give a total poverty rate of .283, that is, (1,066 + 1,200)/8,000. In rich black areas, as in rich white areas, the poverty rate is 0.

The imposition of racial segregation on a residential structure that is also segregated by class works to the detriment of poor blacks and to the benefit of poor whites. Whereas all poor blacks are confined to neighborhoods with a high poverty rate of .283, some poor whites (in this case one-quarter of them) live in racially homogeneous neighborhoods that are insulated from the greater prevalence of poverty among blacks, so their poverty rate is only .150 (see neighborhoods 1 and 2 in City 2, fig. 2). This lower rate of poverty is exactly balanced by the higher rate of poverty experienced by whites living in poor black neighborhoods, however, so the *total* neighborhood poverty rate experienced by poor whites remains unchanged at .250, that is, (.25 × .150) + (.75 × .283) = .250.

The poverty rate that all whites (not just poor ones) experience is a weighted average of the poverty rates prevailing in the four neighborhood types. In City 2, 16.7% of whites live in rich white neighborhoods with a poverty rate of 0, 16.7% live in poor white areas with a poverty rate of .150, one-third live in poor black neighborhoods with a poverty rate of .283, and one-third live in rich black areas with no poor at all, yielding an overall rate of .119 (see fig. 2). The calculation for blacks is simpler: half live in rich black neighborhoods where the poverty rate is 0 and half live in poor black neighborhoods where the rate is .283, giving an overall rate of .142. As before, through the imposition of racial segregation, the average poverty rate experienced by blacks moves up while that experienced by whites goes down.

Similar computations performed on Cities 3 and 4 show that the size of the black-white disparity increases as racial segregation rises. With a racial dissimilarity index of .667 (City 3, fig. 2), blacks experience an average neighborhood poverty rate of .175 compared with a figure of .108 for whites; and *poor* blacks experience a neighborhood poverty rate of .350 relative to .250 for poor whites. The latter figures, moreover, obscure the fact that now half of all poor whites live in an area with a poverty rate of .150, whereas *all* poor blacks live in a neighborhood with

a poverty rate of .350. With complete racial segregation, of course, the contrast between blacks and whites reaches its maximum. In this case, the average poverty rate experienced by all whites taken together is .100 and that by poor whites is .200, whereas poor blacks are confined to neighborhoods with a poverty rate of .400, and blacks as a whole experience a poverty rate of .200.

ECONOMIC DISLOCATION IN A SEGREGATED ENVIRONMENT

If racial segregation concentrates poverty in space, it also focuses and exacerbates any *change* in the economic status of minority groups. In a segregated environment, any exogenous economic shock that causes a downward shift in the distribution of minority income (e.g., the closing of factories, the mechanization of production, the suburbanization of employment) will not only bring about an increase in the poverty rate for the group as a whole; it will also cause an increase in the geographic concentration of poverty. This geographic intensification of poverty occurs because the additional poverty created by the exogenous shock is spread unevenly over the metropolitan area. In a racially segregated city, any increase in poverty is confined to a small number of minority neighborhoods; the greater the segregation, the smaller the number of neighborhoods absorbing the shock, and the more severe the resulting concentration of poverty. If class segregation is also imposed, then the additional poverty is not only restricted to minority neighborhoods, it is confined primarily to *poor* minority neighborhoods.

In short, when shifts in the distribution of minority income occur within a racially segregated environment, they have the power to transform, very rapidly and dramatically, the socioeconomic environment experienced by poor minority families. In this section, I demonstrate how racial segregation undermines the economic base of minority communities during periods of economic dislocation. I use the hypothetical data from figures 1 and 2 to document the effect of a 50% increase in the rate of black poverty from .200 to .300, with the white rate held constant. This pattern of change in the distribution of white and black incomes parallels quite closely what happened in many U.S. urban areas during the 1970s. In Chicago, for example, the proportion of black families in poverty increased from .200 in 1970 to .283 in 1980, while the proportion of poor white families remained constant at about .060; in New York, the poverty rate among white families was stable at about .100, while the black rate went from .214 to .296, and the Hispanic rate grew from .317 to .370 (Massey and Eggers 1990).

The analysis is summarized in table 1, which shows the concentration of poverty in black and white neighborhoods before and after the as-

TABLE 1

POVERTY CONCENTRATION EXPERIENCED BY BLACKS AND WHITES LIVING IN CITIES CHARACTERIZED BY DIFFERENT LEVELS OF RACIAL AND CLASS SEGREGATION

INDEX OF POVERTY CONCENTRATION AND LEVEL OF RACIAL SEGREGATION	WITHOUT CLASS SEGREGATION			WITH CLASS SEGREGATION		
	Before Black Income Shift (PR = .20)	After Black Income Shift (PR = .30)	Change	Before Black Income Shift (PR = .20)	After Black Income Shift (PR = .30)	Change
Neighborhood poverty experienced by all people:						
Proportion poor in neighborhood of average black person:						
With no racial segregation	.125	.150	.025	.125	.150	.025
With low racial segregation	.133	.167	.034	.142	.175	.033
With high racial segregation	.150	.200	.050	.175	.225	.050
With complete racial segregation	.200	.300	.100	.200	.300	.100
Proportion poor in neighborhood of average white person:						
With no racial segregation	.125	.150	.025	.125	.150	.025
With low racial segregation	.122	.144	.022	.119	.142	.023
With high racial segregation	.117	.133	.016	.108	.125	.017
With complete racial segregation	.100	.100	.000	.100	.100	.000

Proportion poor in neighborhood of average poor black person:						
With no racial segregation	...	...	...	.250	.300	.050
With low racial segregation	...	...	...	.283	.350	.067
With high racial segregation	...	...	...	.350	.450	.100
With complete racial segregation	...	...	...	.400	.600	.200
Proportion poor in neighborhood of average poor white person:						
With no racial segregation	...	...	...	.250	.300	.050
With low racial segregation	...	...	...	.250	.300	.050
With high racial segregation	...	...	...	.250	.300	.050
With complete racial segregation	...	...	...	.200	.200	.000
Indices of class segregation:						
Level of class segregation (blacks)	.000	.000	.000	.625	.714	.089
Level of class segregation (whites)	.000	.000	.000	.555	.555	.000
Level of total class segregation	.000	.000	.000	.571	.588	.017

NOTE.—PR = poverty rate.

sumed income shift, under varying conditions of class and racial segregation. (Data on the hypothetical cities from which the table was constructed will be sent on request.) The three left-hand columns show how the downward shift in black incomes affects the degree of poverty concentration when there is no class segregation; the three right-hand columns indicate the effect of the shift in incomes when class segregation is also imposed.

First consider the case of no class segregation. If blacks were completely integrated, a sharp rise in their poverty rate would be harmful to the well-being of the group as a whole, but it would not greatly alter the neighborhood environment in which they live. The average rate of poverty to which blacks are exposed would increase from .125 to .150, an absolute increment of .025 and a relative increase of 20%. It is doubtful whether an increase of this magnitude would be particularly noticeable to people living in the neighborhood; since blacks and whites occupy the same neighborhoods, this relatively small increment in poverty concentration would be experienced equally by both groups.

As racial segregation rises, however, the downward shift in the distribution of black incomes is confined increasingly to black neighborhoods, and the change in the neighborhood environment becomes more dramatic for blacks and less noticeable for whites. With a low level of segregation ($D = .333$), the level of black poverty concentration increases from .133 to .167 as a result of the income shift (an increment of .024, or 26%), whereas the extent of poverty concentration for whites goes from .122 to .144 (an increment of only .022, or 18%). Under conditions of high segregation ($D = .667$), the disparity between blacks and whites widens—black poverty concentration grows by 33%, as a result of the income shift, to reach .200; whereas white poverty concentration increases by only 14% to reach .133. When the two groups are completely segregated, of course, all of the increase in black poverty is absorbed by black neighborhoods, so that their poverty concentration increases by 50% to .300, whereas white poverty concentration remains constant at .100, one-third of the black level.

Thus, with complete racial segregation (and recall that Chicago had a black-white dissimilarity index of .906 in 1980), the degree of poverty concentration among blacks can reach truly alarming proportions following a sharp downward shift in the distribution of black income, as was observed in many cities during the 1970s. This transformation in the socioeconomic environment of blacks occurs entirely through the interaction of the distributional structure of income with the residential structure of segregation and not as a result of rich blacks fleeing the ghetto.

The three right-hand columns of table 1 build class segregation into the analysis by distinguishing between poor and nonpoor neighborhoods, as

in figure 2. In a city segregated by class as well as race, any increase in black poverty is absorbed, not simply by black neighborhoods, but by *poor* black neighborhoods, so the level of class segregation among blacks increases from .625 before the income shift to .714 afterward (see the last three rows in the table). This increase stems not from out-migration by rich blacks but from the further impoverishment of already-poor black neighborhoods. Racial segregation concentrates any additional poverty created by an economic downturn and heaps it on already-disadvantaged minority neighborhoods, causing class segregation to rise.

In essence, the imposition of class as well as racial segregation takes a bad situation and makes it worse. Consider the results for cities that are segregated by class (the three right-hand columns in table 1). Before the income shift, poverty rates in the average poor black neighborhood range from .250 in a city with no segregation to .400 in one with complete segregation. After the shift, the economic situation in poor black neighborhoods deteriorates appreciably at all segregation levels, but the deterioration is truly disastrous at high levels of racial segregation. With a dissimilarity index of .667, the neighborhood of the average poor black resident goes from 35% poor to 45% poor, a relative increase of 29%; with complete segregation, the neighborhood poverty rate of poor blacks climbs from 40% to 60%.

Thus, under conditions of complete racial segregation, a 50% rise in the black poverty rate translates directly into a 50% increase in the concentration of poverty in poor black neighborhoods. In a segregated city, a downward income shift in black incomes causes poor blacks to live in an environment where the vast majority of neighbors are also poor. The *same income change,* would, in the absence of segregation, yield only a 20% increase in poverty concentration among poor blacks and would leave them in neighborhoods where the vast majority of people are not poor.

As segregation rises, the disparity between the neighborhood environments of poor whites and poor blacks widens markedly. With no racial segregation, of course, poor whites and poor blacks experience the geographic consequences of falling black incomes equally. Both groups experience a 20% increase in neighborhood poverty and end up living in neighborhoods where three out of every 10 persons are poor. As segregation rises, however, poor whites are increasingly insulated from the consequences of falling black incomes. As one moves from complete integration to complete segregation under conditions of high black poverty, the poverty rate in *poor white* neighborhoods *falls* from .300 to .200, while that in *poor black* neighborhoods *rises* from .300 to .600 (see the right-hand column labeled "After Black Income Shift" in the bottom half of table 1). In short, the net effect of racial segregation is to expose whites

and blacks to vastly different socioeconomic environments and to leave the economic base of the black community extremely vulnerable to any downturn in its economic fortunes.

SEGREGATION AND THE CREATION OF THE UNDERCLASS

I have shown how racial segregation acts to concentrate poverty in space and to focus any increase in poverty on a small number of poor, geographically isolated minority neighborhoods. Poverty is not a neutral variable, of course, and with high rates of poverty come a variety of other social and economic conditions: reduced buying power, increased welfare dependence, high rates of family disruption, elevated crime rates, housing deterioration, elevated infant mortality rates, and decreased educational quality. These outcomes, moreover, do not occur in isolation but represent a set of mutually reinforcing conditions. Thus, the increase in poverty concentration that follows *automatically* when the minority poverty rate rises in a segregated city brings about a constellation of other changes in the social and economic composition of neighborhoods that have profound implications for the well-being of those who live there.

In this section, I explore the nature of these ancillary social and economic changes and discuss their self-reinforcing effect in producing underclass communities. I accomplish this task by using regression equations to predict specific aspects of a neighborhood's social and economic environment from its poverty rate. Two data sets were used to estimate the prediction equations. One was a file of approximately 21,000 census tracts located in 60 SMSAs. It included information on the median household income, the public assistance rate, and the rate of female-headed families in each tract (see Massey and Denton 1987). These variables were regressed on the tract poverty rate and the proportion white to yield the three equations shown at the top of the Appendix. The second file consisted of 333 tracts, located in Philadelphia, that contained information on tract crime rates, death rates, housing deterioration, and school quality (Massey, Condran, and Denton 1987). These variables were likewise regressed on the poverty rate and the proportion white to produce the equations shown in the lower portion of the Appendix.

The equations were used to predict the socioeconomic environment typical of poor minority neighborhoods before and after an assumed rise in the black poverty rate under varying conditions of racial and class segregation. Increasing the poverty rate under varying conditions of class and racial segregation leads to different poverty concentrations (see my discussion above of the hypothetical cities). These poverty concentrations were employed to predict neighborhood socioeconomic conditions by using the empirically estimated equations. Table 2, for example, predicts

TABLE 2

INDICATORS OF THE NEIGHBORHOOD SOCIOECONOMIC ENVIRONMENT EXPERIENCED BY POOR BLACKS ASSUMING DIFFERENT INCOME DISTRIBUTIONS AND LEVELS OF RACIAL AND CLASS SEGREGATION

MEASURE OF NEIGHBORHOOD SOCIOECONOMIC ENVIRONMENT AND LEVEL OF RACIAL SEGREGATION	WITHOUT CLASS SEGREGATION			WITH CLASS SEGREGATION		
	Before Black Income Shift (PR = .20)	After Black Income Shift (PR = .30)	Change	Before Black Income Shift (PR = .20)	After Black Income Shift (PR = .30)	Change
Median household income:						
With no racial segregation ($)	18,826	17,488	−1,338	13,020	11,235	−1,785
With low racial segregation ($)	18,337	16,587	−1,750	11,745	9,667	−2,078
With high racial segregation ($)	17,249	14,883	−2,366	9,561	7,119	−2,442
With complete racial segregation ($)	14,721	10,960	−3,761	8,160	4,523	−3,637
Percentage of families on public assistance:						
With no racial segregation	11.5	13.4	1.9	21.1	24.6	3.5
With low racial segregation	12.6	15.1	2.5	23.8	28.8	5.0
With high racial segregation	15.6	19.4	3.8	30.6	38.0	7.4
With complete racial segregation	21.2	28.6	7.4	36.1	51.0	14.9
Percentage of families with female heads:						
With no racial segregation	11.7	13.2	1.5	19.2	22.2	3.0
With low racial segregation	12.8	14.8	2.0	21.8	25.8	4.0
With high racial segregation	16.2	19.2	3.0	28.2	34.1	5.9
With complete racial segregation	21.5	27.5	6.0	33.5	45.5	12.0

NOTE.—Figures predicted from regressions of each characteristic on the percentage white and the percentage of families in poverty, estimated across 20,854 census tracts in 60 U.S. SMSAs. The percentage white in black neighborhoods under different levels of racial segregation is as follows: 75% with no segregation, 66.7% with low segregation, 50% with high segregation, and 0% with complete segregation. PR = poverty rate.

the percentage of families on public assistance, the percentage of families with female heads, and the median family income by taking poverty concentrations calculated under different assumptions of racial and class segregation (from table 1) and inserting them into the prediction equations, along with the percentage of whites in black neighborhoods (included as a control).

A simple example illustrates how this and all subsequent tables were created. The first two columns in the first line of table 2 contain the median household incomes predicted for poor black neighborhoods before and after the income shift, assuming no racial or class segregation. The table shows that poor blacks can expect to live in a neighborhood with a median income of $18,826 before the shift and $17,488 afterward. These figures were generated by taking neighborhood poverty rates from the first two left-hand columns of the first row of table 1 (12.5% and 15.0%) and inserting them into the equation that predicts median household income (the first row of Appendix table A1), together with the percentage of whites in each neighborhood (75%—see City 1, fig. 1). The equation thus predicts a logged median neighborhood income of 9.843 (= 10.187 + 0.00033 × 75 − 0.0295 × 12.5), whose antilog is 18,826; after the shift it predicts a value of 9.769 (= 10.187 + 0.00033 × 75 − 0.0295 × 15), whose antilog is 17,488.

A major consequence of any downward shift in the distributional structure of black income is a reduction of buying power in neighborhoods where poor blacks live. In order to simplify exposition, I compare the situation of poor black neighborhoods created under four polar assumptions: no segregation by race or class, class segregation alone, complete racial segregation with no class segregation, and both class and racial segregation. In the first circumstance, a rise in the black poverty rate from 20% to 30% is associated with a significant drop in median neighborhood income from $18,826 to $17,488, a decline of $1,338 or 7.1%. This change implies a substantial loss of demand in all neighborhoods containing blacks.

If we assume that the median household income is the same as the mean (a conservative assumption for our purposes) and note that each neighborhood contains about 2,963 households (the neighborhood population of 8,000 divided by the average U.S. household size, 2.7), then each neighborhood is expected to lose about $3.96 million in potential demand as a result of the income shift (2,963 × 1,338 = 3.96 million). In the absence of racial or class segregation, however, this loss of buying power is spread evenly throughout the city. Retail profits, tax receipts, and service revenues fall for the city as a whole, and some businesses and service organizations close, but no particular neighborhood suffers dis-

proportionately, and blacks and whites do not experience any differential loss of access to goods or services.

Imposing class segregation shifts the burden of rising black poverty from rich to poor neighborhoods; but, in the absence of racial segregation, poor whites and blacks experience these disruptions equally. If class segregation alone is assumed, the median income in poor neighborhoods falls from $13,020 before the shift to $11,235 afterward, a drop of $1,785, implying a loss of demand of $5.29 million. In poor neighborhoods, therefore, retail profits fall, services are cut back, and businesses inevitably close; but among poor neighborhoods, blacks and whites still experience the losses equally, and there is no basis for the formation of a racially distinctive underclass.

The imposition of racial segregation changes the situation entirely. Under conditions of complete racial segregation but no class segregation, the median income in black neighborhoods falls from $14,721 before the rise in black poverty to $10,960 afterward, a drop of $3,761, or 25.5%, substantially greater than the drop when class segregation is imposed alone. A drop of this magnitude implies a very dramatic loss of potential demand, with some $11.1 million in income disappearing from black neighborhoods because of the shift. In these areas, stores will inevitably close, services will be withdrawn, and neighborhood investments will drop.

Finally, a rise in the black poverty rate in a city that is segregated by class as well as race confines the loss of income and potential demand entirely to poor black neighborhoods. As a result, what was a difficult situation for poor blacks becomes an outright disaster. Under conditions of both racial and class segregation, poor black neighborhoods face a precarious situation *before* the income shift, with a median household income of only $8,160. After the shift, the median neighborhood income plummets to $4,523, representing a loss of $3,637, or 45%. Although neighborhoods inhabited by poor blacks had a weak potential demand before the shift (only $24.2 million), after the shift potential demand is almost halved to $13.4 million, for a loss of $10.8 million.

A loss of this magnitude from an already-small income base would rapidly bring about the failure of most nonessential businesses and the elimination of services that depend on the ability of clients to pay. Racial segregation takes the overall loss in black income, concentrates it spatially, and focuses it on fragile neighborhoods that are the least able to absorb it. Under conditions of high racial segregation, downward shifts in black income cut an already weak demand to levels insufficient to support anything more than the most rudimentary goods and services. This outcome occurs whether the city is segregated by class or not, but the imposi-

tion of racial segregation on a city that is already segregated by class greatly exacerbates the severity of the economic deprivation experienced by poor blacks.

With falling median incomes, other social conditions can be expected to follow, but in the absence of either class or racial segregation, a sharp rise in black poverty does not have a particularly noticeable effect on the social composition of the neighborhoods where poor blacks live. In an integrated city, the income shift causes the percentage of families on public assistance to increase from 11.5% to 13.4%, and the percentage of families headed by females (female-headed families) to rise from 11.7% to 13.2%. The imposition of class segregation does not change this outcome much—the dependency rate increases from 21.1% before the shift to 24.6% afterward, and the percentage of female-headed families goes from 19.2% to 22.2%. More important, with class segregation alone poor blacks and whites experience the changes equally, so a racially distinctive underclass cannot form.

The imposition of racial segregation has a more powerful effect on the social environment experienced by poor blacks. With racial segregation but no class segregation, the public assistance rate in black neighborhoods rises from 21.2% to 28.6%, and the percentage of female-headed families increases from 21.5% to 27.5%. If class segregation is also imposed, however, the socioeconomic composition of poor black neighborhoods moves from a situation where self-supporting, husband-wife families are in the majority, to an environment where welfare-dependent, female-headed families are the norm. After the shift, the dependency rate in poor black areas increases from 36.1% to 51%, and the percentage of female-headed families rises from 33.5% to 45.5% (see the three right-hand columns for families on public assistance and those with female heads in table 2).

Rising neighborhood poverty rates and falling incomes have other effects as well (see table 3). During periods of rising minority poverty, racial and class segregation build housing deterioration into the residential environment of poor blacks by concentrating the loss of income in poor black neighborhoods. As total neighborhood income falls, homeowners are less able to repair and maintain their property, landlords are less able to recover the costs of building maintenance from their rents, and housing dilapidation spreads. Moreover, even homeowners and landlords with money to maintain their properties have less incentive to do so because of the spreading deterioration around them. Repair is rendered more difficult by the closing of hardware stores, lumberyards, and supply businesses as a result of falling demand in the neighborhood.

Table 3 illustrates the potential size of segregation's effect on the spread of housing deterioration by predicting the proportion of houses that are

boarded up. With no racial or class segregation, very few homes are boarded up, and the shift in black poverty rates hardly changes this fact: around 2% of homes are boarded up before and after the income shift (see the first section of table 3). As segregation rises, however, the prevalence of boarded-up housing increases, and the effect of the shift in black incomes becomes more noticeable. Under a regime of complete racial segregation but no class segregation, 4.5% of houses are boarded up before the income shift, and 6% are boarded up afterward. The imposition of both racial and class segregation exacerbates this situation further, with the prevalence of abandoned housing rising from 7.5% before the income shift to 10.5% afterward.

Loss of income and rising poverty are also associated with increasing rates of crime and violence. With a black poverty rate of 30% (i.e., after the downward shift in black incomes), the major crime rate in neighborhoods inhabited by poor blacks is predicted to be 50 per thousand in a city without class or racial segregation; but, as racial segregation rises, the rate steadily increases to 60 per thousand (see table 3). In cities that are segregated by class alone, the major crime rate is similarly about 62 per thousand; but this rate steadily rises as racial segregation is imposed, reaching a high of 84 per thousand under conditions of maximum segregation. Thus, the imposition of racial segregation on a class-segregated city inevitably produces extremely high crime rates in poor black neighborhoods.

The concentration of poverty that follows directly from racial segregation also has strong effects on the mortality risks faced by poor blacks. The third section in table 3 shows how racial segregation steadily increases the childhood mortality rate among poor blacks. With an overall black poverty rate of 30%, the childhood death rate is 12.5 per thousand with no racial or class segregation, rising to a rate of 18.4 per thousand when racial segregation is imposed (an increase of 47% attributable to the effect of racial segregation alone). Similarly, the rate is 14.5 per thousand when class segregation is imposed by itself, increasing to 22.5 per thousand when racial segregation is added (an increase of 55%).

These increases in the risks of mortality are generated through both direct and indirect means. Directly, the concentration of poverty raises mortality because poor people lack money to pay for medical services; even when services exist, people cannot afford to use them. The poor also tend to engage more frequently in unhealthy behaviors such as smoking, alcohol consumption, and drug abuse, and their concentration in certain neighborhoods raises mortality rates in those places. Indirectly, the loss of income in poor black neighborhoods brings about the withdrawal of health services, the closing of hospitals, and the elimination of clinics; and publicly supported medical services that remain in poor black neighbor-

TABLE 3

INDICATORS OF THE NEIGHBORHOOD HEALTH, SAFETY, HOUSING, AND SCHOOL QUALITY UNDER DIFFERENT INCOME DISTRIBUTIONS AND DIFFERENT LEVELS OF RACIAL AND CLASS SEGREGATION

INDICATOR OF NEIGHBORHOOD QUALITY AND LEVEL OF RACIAL SEGREGATION	WITHOUT CLASS SEGREGATION			WITH CLASS SEGREGATION		
	Before Black Income Shift (PR = .20)	After Black Income Shift (PR = .30)	Change	Before Black Income Shift (PR = .20)	After Black Income Shift (PR = .30)	Change
Percentage of houses boarded up:						
With no racial segregation	1.7	2.0	.3	3.5	4.3	.8
With low racial segregation	2.0	2.5	.5	4.2	5.2	1.0
With high racial segregation	3.0	3.8	.8	6.0	7.5	1.5
With complete racial segregation	4.5	6.0	1.5	7.5	10.5	2.0
Major crime rate (per 1,000 persons):*						
With no racial segregation	47.9	49.9	2.0	57.8	61.8	4.0
With low racial segregation	48.4	51.1	2.7	60.3	65.6	5.3
With high racial segregation	49.1	53.1	4.0	65.1	72.9	7.8
With complete racial segregation	52.4	60.4	8.0	68.3	84.2	15.9

Childhood death rate (ages 0–4):						
With no racial segregation	12.2	12.5	.3	13.9	14.5	.6
With low racial segregation	12.7	13.2	.5	14.8	15.7	.9
With high racial segregation	14.7	15.4	.7	17.4	18.8	1.4
With complete racial segregation	17.1	18.4	1.3	19.8	22.5	2.7
Percentage of high school students scoring below fifteenth percentile on standardized test:†						
With no racial segregation	25.9	27.3	1.4	32.6	35.3	2.7
With low racial segregation	27.1	28.9	1.8	35.1	38.7	3.6
With high racial segregation	30.7	33.4	2.7	41.4	46.7	5.3
With complete racial segregation	36.5	41.8	5.3	47.1	57.8	10.7
High school dropout rate (per 100 students):						
With no racial segregation	9.9	10.4	.5	12.4	13.5	1.1
With low racial segregation	10.0	10.7	.7	13.0	14.4	1.4
With high racial segregation	10.0	10.9	.9	14.0	16.0	2.0
With complete racial segregation	10.5	12.6	1.1	14.6	18.6	4.0

NOTE.—Figures predicted from regressions of each characteristic on the percentage white and the percentage of families in poverty, estimated across 333 census tracts in the city of Philadelphia. The percentage white in black neighborhoods under different levels of racial segregation is as follows: 75% with no segregation, 66.7% with low segregation, 50% with high segregation, and 0% with complete segregation. PR = poverty rate.

* Major crimes include murder, rape, aggravated assault, robbery, burglary, larceny, and auto theft.

† California Achievement Test.

hoods are likely to be of lower quality than those provided in nonpoor white areas.

Finally, segregation has a strong effect on the quality of education provided to students from poor black neighborhoods. Although the effect of school socioeconomic composition on quality of education is unclear (see Jencks and Mayer 1989), the concentration of poverty in neighborhoods inevitably concentrates deprivation in schools. Moreover, since support for public schools comes primarily from local tax receipts, the decline in income that accompanies a rise in poverty concentration undercuts financial support for public schools serving poor blacks. Areas of concentrated poverty also do not provide a density of income sufficient to support private institutions.

The last two sections of table 3 illustrate the effect of segregation on standardized test performance and school dropout rates. After the income shift, the percentage of high school students scoring below the fifteenth percentile on the California Achievement Test rises from 27% under conditions of no racial or class segregation to 42% with racial segregation alone. When class segregation is also imposed, the percentages range from 35% with no racial segregation to 58% with complete racial segregation. Similarly, the effect of the shift in the income distribution rises steadily as racial segregation increases. Racial segregation alone accounts for the difference between a neighborhood school where most students score above the fifteenth percentile and one where most do not. Similar effects of racial segregation are observed for high school dropout rates, although the effects are less pronounced.

Thus, residential segregation plays a very important role in creating the "tangle of pathology" long identified with the ghetto and more recently with the underclass (see Clark 1965; Wilson 1987). Racial segregation is the structural condition imposed on blacks that makes intensely deprived communities possible, even likely. When racial segregation occurs in the class-segregated environment of the typical American city, it concentrates income deprivation within a small number of poor black areas and generates social and economic conditions of intense disadvantage. These conditions are mutually reinforcing and cumulative, leading directly to the creation of underclass communities typified by high rates of family disruption, welfare dependence, crime, mortality, and educational failure. Segregation creates the structural niche within which a self-perpetuating cycle of minority poverty and deprivation can survive and flourish.

SUMMARY AND CONCLUSION

During the 1970s, black poverty became more persistent and geographically concentrated in American cities. Many observers explained these

trends by pointing to the class-specific effects of government welfare policies, industrial restructuring, changing sexual mores, the breakdown of the family, and the departure of the middle class from inner-city neighborhoods. While not denying the importance of these trends, I contend that racial segregation was the key factor responsible for the social transformation of the black community and the concentration of poverty during the 1970s. A pernicious interaction between rising poverty rates and high levels of segregation created the population we know as the urban underclass.

Illustrating my general theoretical arguments with a simulated experiment, I have shown how racial segregation shapes, and to a large extent determines, the socioeconomic environment experienced by poor minority families. Racial segregation concentrates deprivation in black neighborhoods by restricting the poverty created by economic downturns to a small number of minority neighborhoods. To the extent that cities are also segregated by class, increases in poverty are confined largely to poor minority neighborhoods. Simulations demonstrate that under conditions of high class and racial segregation, poor black neighborhoods rapidly move to high concentrations of poverty following an overall rise in black poverty rates.

Using empirically derived equations to predict neighborhood socioeconomic outcomes from poverty concentrations, I have also shown how racial segregation acts to undermine the socioeconomic environment faced by poor blacks and leaves their communities extremely vulnerable to any downturn in the economy. Under conditions of high racial segregation, a rise in the black poverty rate produces a dramatic loss in potential demand in poor black neighborhoods, leading to the withdrawal, deterioration, and outright elimination of goods and services distributed through the market. Moreover, to the extent that public services are dependent on local tax revenues or user fees, they also disappear or suffer declines in quality.

Because segregation concentrates disadvantage, shifts in black poverty rates comparable with those observed during the 1970s have the power to transform the socioeconomic character of poor black neighborhoods very rapidly and dramatically, changing a low-income black community from a place where welfare-dependent, female-headed families are a minority to one where they are the norm, producing high rates of crime, property abandonment, mortality, and educational failure. All of these deleterious conditions occur through the joint effect of rising poverty and high levels of racial segregation. They can be produced at any time through a simple increase in black poverty rates under conditions prevailing in most large U.S. cities. They can be generated for any fixed level of class segregation, and they do not require the out-migration of middle-class blacks from the

ghetto. Thus, racial segregation is crucial to understanding and explaining the existence of America's urban underclass.

The way that segregation concentrates poverty and creates disadvantaged minority neighborhoods provides a succinct, comprehensive explanation that resolves several issues in the underclass debate. First, it explains why the urban underclass, however one defines it, is so disproportionately composed of blacks and Puerto Ricans (see Reischauer 1987; Ricketts and Sawhill 1988). In the nation's largest urban areas, these groups are the only ones that have *simultaneously* experienced high levels of residential segregation and sharp increases in poverty. Black-white dissimilarity indices generally exceed .700; in the largest urban areas, they are usually above .800. Likewise, Puerto Ricans are the only Hispanic group whose segregation indices are routinely above .700 (see Massey and Denton 1989). During the 1970s, other minority groups, such as Mexicans and Asians, experienced lower levels of segregation, smaller increases in poverty, or both.

Segregation's role in concentrating poverty also explains why the urban underclass is confined primarily to the Northeast and Midwest, and mostly to a small number of large metropolitan areas, such as New York, Chicago, Philadelphia, and Baltimore (see Bane and Jargowsky 1988). During the 1970s, older industrial cities in these regions not only experienced the sharpest economic reversals but also exhibited the highest levels of racial segregation in the United States (see Levy 1987; Massey and Denton 1987; Massey and Eggers 1990). Thus, industrial restructuring drove minority poverty rates upward most sharply in cities where blacks and Hispanics were most segregated.

Explaining the origins of the underclass in terms of continuing racial segregation is also consistent with earlier research showing that upper-income blacks remain highly segregated from whites, that this pattern has not changed over time, and that the degree of class segregation among blacks is actually lower than that among other minority groups (Massey and Denton 1987; Denton and Massey 1989*a;* Massey and Eggers 1990). Segregation, therefore, provides a more cogent and plausible explanation for the concentration of black poverty than the out-migration of the middle class from the ghetto. The latter hypothesis does not explain why blacks are overrepresented in the underclass or why geographical mobility should concentrate poverty among blacks but not other groups. In the United States, spatial mobility has always accompanied social mobility, and middle-class families have always moved out of racial and ethnic enclaves into residentially integrated neighborhoods (see Massey 1985). Middle-class blacks are not unique in seeking to put distance between themselves and the poor; rather, they stand out because they are less able to do so than the middle class of other groups.

The role that segregation plays in the creation of the underclass also explains the recent empirical findings of other researchers. LaVeist (1989*a*, 1989*b*), for example, has shown that the level of black residential segregation is the strongest predictor of black infant mortality rates and that, whereas racial segregation sharply increases mortality among blacks, it strongly reduces it among whites. My simulations show clearly how whites gain and blacks lose through the imposition of racial segregation. By confining blacks to a small number of segregated neighborhoods, whites insulate themselves from the higher rates of black poverty and the problems associated with it; and as segregation rises, the total income of white neighborhoods grows while that of black neighborhoods falls, so that whites are in a better position to support hospitals, clinics, and other medical facilities.

Another set of empirical results has recently been generated by Galster and Keeney (1988), using a simultaneous equations model of segregation in 40 U.S. metropolitan areas. They uncovered a very significant and dynamic feedback relationship between segregation, black socioeconomic status, and discrimination, whereby rising segregation increased black-white occupational differences, which in turn increased the level of black-white segregation through a negative relationship with black income. At the same time, falling black socioeconomic status raised the level of discrimination in the housing market, which, in turn, increased segregation, further reducing black incomes and occupational status, leading to additional discrimination and segregation, and so on.

This sort of dynamic relationship is interpretable in terms of the model of segregation and poverty concentration I have developed. Whites benefit from segregation because it isolates higher rates of black poverty within black neighborhoods. These higher concentrations of black poverty then reinforce the connection, in whites' minds, between black race and behaviors associated with poverty, such as crime, family disruption, and dependency. Segregation heightens and reinforces negative racial stereotypes by concentrating people who fit those stereotypes in a small number of highly visible minority neighborhoods—a structural version of "blaming the victim" (Ryan 1972)—thereby hardening prejudice, making discrimination more likely, and maintaining the motivation for segregation. The persistence of segregation, in turn, worsens the concentration of poverty, putting additional downward pressure on black socioeconomic status, making further segregation and discrimination more likely, and so on. In short, the feedback loop identified by Galster and Keeney (1988) could very well operate through a close connection between racial segregation and black poverty concentration.

Finally, an appreciation of the role that segregation plays in generating and perpetuating the underclass points to the need for a very different set

of policies toward poverty and the underclass. In recent years, a variety of initiatives have been proposed or enacted to address class-based problems within the black community, such as joblessness, family disruption, drug abuse, low levels of education, alcoholism, and crime. These serious social problems clearly must be addressed, but I argue that, unless the issue of race is simultaneously addressed, these class-related problems cannot be solved.

The issue for public policy is not whether race or class is responsible for the current plight of blacks in the United States, but how race *and* class interact to undermine the well-being of this group. Arguments about the declining significance of race (Wilson 1978, 1987), debates on the effect of government welfare policies (Murray 1984; Jencks 1985), and disputes about trends in the concentration of poverty (Reischauer 1987; Ricketts and Sawhill 1988; Bane and Jargowsky 1988) have largely ignored the continuing reality of segregation imposed on blacks because of their race.

Race affects the social and economic well-being of blacks primarily through the housing market. Two decades after the passage of the Fair Housing Act, levels of black segregation remain exceedingly high in large urban areas where the concentration of poverty is more severe (New York, Chicago, Philadelphia, Newark, and Detroit, according to Bane and Jargowsky). This high level of black segregation cannot be explained by blacks' objective socioeconomic characteristics (Massey and Denton 1987; Denton and Massey 1989*a*), their housing preferences (Farley et al. 1978; Schuman, Steeh, and Bobo 1985), or their limited knowledge of white housing markets (Farley 1979; Farley, Bianchi, and Colasanto 1979). Rather, it is linked empirically to the persistence of discrimination in housing markets (Galster 1986, 1987*a*, 1987*b*; Galster and Keeney 1988) and to continuing antiblack prejudice (Farley et al. 1978; Schuman and Bobo 1988). Ironically, Puerto Ricans are the exception that proves the rule, since the high degree of segregation they experience is clearly attributable to the persistence of a black racial identity among them (Massey and Bitterman 1985; Denton and Massey 1989*b*).

In short, my explication of segregation's role in concentrating urban poverty and creating the underclass strongly suggests that class-based policies will not succeed by themselves. As long as racial discrimination and prejudice are translated so directly into economic disadvantage through housing markets, and as long as racial segregation persists at such high levels in American cities, blacks and Puerto Ricans will remain vulnerable groups whose basis for community life and socioeconomic well-being can be systematically undermined by the closing of a factory or the onset of a recession. This vulnerability stems from the fact that segregation intensifies and magnifies any economic setback these groups suffer

and builds deprivation structurally into their social and economic environments.

APPENDIX

TABLE A1

REGRESSION EQUATIONS USED TO PREDICT NEIGHBORHOOD ENVIRONMENTAL CHARACTERISTICS IN HYPOTHETICAL CITIES

PREDICTED OUTCOME VARIABLE	INDEPENDENT VARIABLES: Percentage White	INDEPENDENT VARIABLES: Poverty Rate	Intercept	R^2
Equations estimated across 20,854 tracts in 60 SMSAs:				
Median household income (logged):				
Coefficient	.00033*	−.03*	10.19*	.75*
SE	(.00006)	(.0002)	(.006)	
Percentage families on assistance:				
Coefficient	−.05*	.75*	6.26*	.79*
SE	(.002)	(.004)	(.16)	
Percentage female-headed families:				
Coefficient	−.07*	.60*	9.58*	.75*
SE	(.002)	(.004)	(.16)	
Equations estimated across 333 tracts in Philadelphia:				
Percentage houses boarded up:				
Coefficient	−.02*	.15*	1.58*	.47*
SE	(.006)	(.02)	(.59)	
Major crime rate:				
Coefficient	.02	.79*	36.55*	.06*
SE	(.08)	(.02)	(8.47)	
Childhood death rate:				
Coefficient	−.05	.14*	14.37*	.06*
SE	(.03)	(.07)	(2.74)	
Percentage high school students below fifteenth percentile on CAT:				
Coefficient	−.09*	.53*	25.78*	.61*
SE	(.02)	(.04)	(1.65)	
High school dropout rate:				
Coefficient	.01	.20*	6.49*	.34*
SE	(.007)	(.02)	(.74)	

* $P < .05$.

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