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Author(s): Douglas S. Massey and Mitchell L. Eggers

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The Ecology of Inequality: Minorities and the Concentration of Poverty, 1970–1980¹

Douglas S. Massey
University of Chicago

Mitchell L. Eggers
University of Pennsylvania

This article examines trends in the geographic concentration of poverty among whites, blacks, Hispanics, and Asians in 60 U.S. metropolitan areas from 1970 to 1980. It describes changes in the distributional structure of income, the extent of income inequality, and the degree of spatial segregation by income. These factors are then related to levels and trends in poverty concentration. Concentrated urban poverty is confined principally to blacks outside the West and to Hispanics in the Northeast. Poverty concentration among these groups does not reflect a tendency for upper-status minority members to live apart from the poor but an interaction between changes in the distributional structure of income and patterns of racial/ethnic segregation. The occurrence of rising poverty under conditions of high racial/ethnic segregation explains the growing spatial isolation of poor blacks and Hispanics in U.S. urban society.

Much has been written about poverty and income inequality in the United States. Lively debates have been waged on a variety of fronts, but two themes have been especially salient. The first concerns the extent to which income inequality has increased in recent years, and the second focuses on the degree to which poverty has become geographically concentrated in urban neighborhoods. In both, speculation about possible causes and consequences has run ahead of factual knowledge, and, despite recent empirical investigations, gaps remain. Our purpose in this

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article is to eliminate these gaps and to correct some misconceptions about the causes of concentrated urban poverty.

An important theme in recent research has been the rise in income inequality among U.S. families. Trends in family income clearly reveal the 1970s to have been a watershed period. After 30 years of steady growth, family income stopped increasing in 1973 and slowly fell over the next 11 years (Levy 1987, pp. 12–18). As a result, the long decline in poverty came to an abrupt halt (Smith 1988), and family income inequality rose for the first time in the postwar era (Blackburn and Bloom 1987; Levy 1987). This trend has persisted even after adjustments are made for changes in tax rates, transfer payments, and fringe benefit levels (Levy 1987, p. 195). It has occurred primarily through the bifurcation of the middle class, with well-educated, two-earner families moving up the income hierarchy and single-parent families with lower educations shifting downward (Steinberg 1983; Blackburn and Bloom 1985; Bradbury 1986; Levy 1987).

The conclusions above are drawn from national income statistics. The economic stagnation of the 1970s, however, affected regions, cities, and suburbs quite differently, so levels and trends in poverty and income inequality are likely to be quite heterogeneous across racial and ethnic groups with different geographic distributions. The first purpose of this article, therefore, is to document the extent of this heterogeneity; we will examine levels and trends in poverty and income inequality for specific metropolitan areas and racial/ethnic groups. A key question is whether the rise in income inequality was general throughout the United States or concentrated in particular groups, cities, and regions.

A second line of recent research has focused on the geographic concentration of poverty in urban neighborhoods. The most forceful and systematic treatment of poverty concentration is that of William J. Wilson (1987). Drawing on data from Chicago, he shows that the number of poverty areas increased sharply during the 1970s, while the proportion of poor within them rose (pp. 49–50). Wilson links these changes to the structural transformation of central cities from manufacturing to service centers, to the demographic transformation of cities from majority to minority population composition, and to the expansion of opportunities in housing and employment for middle-class minorities (pp. 29–62).

Just as central cities were losing their low-skill employment base in manufacturing, they simultaneously came to house a growing number of poor minorities, creating a serious employment “mismatch” (see Kain 1968; Kasarda 1983, 1985, 1988). Urban minorities were geographically isolated from high-paying jobs in manufacturing by the movement of factory employment to suburban and nonmetropolitan areas and socially isolated from high-paying jobs in the central city by a lack of education.

These changes occurred just as civil rights laws allowed middle-class minority members to look outside the enclave for employment and housing. As middle-class minorities moved out, they left behind an underclass of families living in very poor neighborhoods with rising concentrations of poverty. The growing concentration of the poor, in turn, created a social environment lacking the institutions, roles, and values conducive to success in the larger society (Wilson 1987, pp. 55–58).

Wilson's thesis contains three basic elements: (1) poverty became more spatially concentrated in American cities during the 1970s, with pernicious social effects; (2) this concentration was made possible by structural transformations that increased the prevalence of poverty among minorities; and (3) middle-class minority members increasingly removed themselves spatially from the poor. A few studies have attempted to test these ideas. Bane and Jargowsky (1988) used a sample of 50 metropolitan areas to document an increase in the number of poverty areas and a growing concentration of poor within them; they also showed that levels and trends in poverty concentration were explained largely by levels and trends in poverty rates. Ricketts and Sawhill (1988) documented a similar increase in the number and population of "underclass areas."

In spite of these results, however, major gaps in our knowledge remain. First, no study has tested the third of Wilson's arguments—that the degree of spatial separation between poor and nonpoor minority families has increased and that this change helps explain the rising concentration of poverty. Second, measures of poverty concentration used in previous studies have not made full use of data on the spatial distribution of income. Third, trends in poverty concentration have not been disaggregated by race and ethnicity; no study has systematically compared minority groups to discern whether the concentration of poverty is primarily a black phenomenon or typifies other racial and ethnic groups as well.

Finally, notably absent from previous work is any serious consideration of the role that current processes of racial segregation play in generating concentrated urban poverty. Wilson and others focus instead on changes in the class structure of minority populations and on class-based patterns of segregation. We argue that, by focusing primarily on class, earlier researchers have failed to appreciate a significant barrier to socioeconomic progress that is made on the basis of race—namely, residential segregation. Although discrimination against blacks in the labor force, and in public life generally, has fallen markedly since the 1960s (see Heckman and Payner 1989), housing is one area where discrimination and segregation have persisted (Wienk et al. 1979; Massey and Denton 1987, 1988*a*). We argue that housing segregation is a key factor behind the unusual and growing concentration of poverty among blacks and

some Hispanics and that the persistence of residential segregation is essential to understanding the plight of the underclass.

In this article, we undertake a detailed geographic analysis of poverty and income inequality among whites, blacks, Hispanics, and Asians in 60 U.S. metropolitan areas. We argue that levels and trends in poverty concentration are best studied with well-established measures of segregation that use complete information on the spatial distribution of income instead of ad hoc and arbitrary definitions of "poverty neighborhoods" and "poverty concentration." We undertake a four-phase analysis that begins by describing trends in income inequality and poverty for racial and ethnic groups in selected metropolitan areas and regions. We then use a standard segregation measure to assess the degree to which income classes among blacks are spatially separated from one another, and we compare levels and trends with those observed for whites, Hispanics, and Asians. In the third phase, we employ an alternative segregation index to measure the spatial concentration of poverty directly for each ethnic and racial group. In the final phase, we show how segregation plays a critical role in translating rising poverty rates into spatially concentrated disadvantages for blacks outside the West and Hispanics in the Northeast.

DATA

The principal data employed in this study were taken from the 1970 Fourth Count Summary Tapes and the 1980 Summary Tape Files (U.S. Bureau of the Census 1970*a*, 1980). These tapes provide detailed tabulations of whites, blacks, Hispanics, and Asians in census tracts of Standard Metropolitan Statistical Areas (SMSAs). Census tracts are small, relatively homogeneous geographic units of about 4,000 people. Our data set includes tracts in the 50 largest SMSAs plus 10 others with large numbers of Hispanics. Following procedures established by Massey and Denton (1987), we employed the SMSA definitions for 1970 and matched tracts to create a constant 1970–80 census-tract grid; we also eliminated tracts likely to contain Native American reservations and military bases, hospitals, prisons, and other such institutions.

Our analysis relies on the cross-tabulation of families by income within census tracts. The Census Bureau provides this information separately for four racial/ethnic groups—whites, blacks, Hispanics, and Asians—but the way these groups were defined changed between 1970 and 1980, creating problems of comparability. In 1980, Hispanics were identified by using a 100% Spanish-origin item (U.S. Bureau of the Census 1982). A similar item was asked in 1970, but the Census Bureau did not use it to prepare detailed tract-level tabulations. Rather, income was cross-tabulated for the "Spanish-American" population as delineated by re-

sponses to a 15% sample question on the language spoken in the home (U.S. Bureau of the Census 1970*b*). In most parts of the country, Spanish Americans were persons who reported Spanish as their mother tongue or who lived in a family where the head reported such a mother tongue. In the five southwestern states, however, non-Spanish-speaking persons with Spanish surnames were added to this population, a minor adjustment in most cases. Massey and Denton (1987) have shown that, for studies of spatial segregation, the Spanish-American definition provides coverage of Hispanics that is roughly comparable with the 1980 Spanish-origin definition.

A more serious problem occurs, however, in the states of New York, Pennsylvania, and New Jersey, where Spanish Americans were defined to include only people of Puerto Rican birth or parentage. In 1970 this definition covered 98% of those of Puerto Rican origin (Jafee, Cullen, and Boswell 1980, p. 189) but omitted all non-Puerto Rican Hispanics, about 37% of the Hispanic population in these states (U.S. Bureau of the Census 1973). The omitted groups are primarily Cubans, Dominicans, and other Caribbean Hispanics who have higher average socioeconomic status than Puerto Ricans (Bean and Tienda 1987).

The absence of these groups from the 1970 income distributions and their inclusion in the 1980 figures create biased comparisons for Hispanics in New York, New Jersey, and Pennsylvania. In our data set, 10 SMSAs are in these states (Albany, Buffalo, Jersey City, Nassau-Suffolk, Newark, New York, Paterson, Philadelphia, Pittsburgh, and Rochester). Since the 1970 income distributions are biased downward by the absence of high-status Hispanic groups, we expect changes in income distribution between 1970 and 1980 to be biased upward. Puerto Ricans are also more segregated than other Hispanic groups (Massey 1981; Massey and Denton 1989), so the degree of spatial isolation among poor Hispanics is biased upward in 1970 relative to 1980. In the discussion of results, we adjust our interpretations to account for these biases.

The Asian population for 1980 was defined from the 100% census question on race, which asked respondents whether they were white, black, American Indian, or in one of several Asian or Pacific Islander groups. The Census Bureau combines the various Asian categories to yield an overall "Asian" population that was used to prepare the income cross-tabulations used in this study. A similar 100% question on race was asked in 1970, but the Census Bureau did not prepare detailed tract-level tabulations for Asians. Following procedures developed by Massey and Denton (1987), however, we estimated Asian income distributions in 1970 by subtracting the numbers of whites and blacks from the total population in each income category and tract. The difference yields a residual that contains Asians, Pacific Islanders, Native Americans, and persons of

“other race.” Native Americans were largely eliminated by excluding tracts where more than 40% of the population was Native American in 1980, and Massey and Denton (1987) have shown that the remaining groups introduce a negligible bias for studying Asian residential patterns.

Both whites and blacks were defined in a straightforward fashion by using the 1970 and 1980 census questions on race. A further problem occurs, however, because Hispanics may be of any race—white, black, or Asian. The race-income tabulations therefore had to be adjusted to create mutually exclusive groups of non-Hispanic whites, non-Hispanic blacks, and non-Hispanic Asians. Unfortunately, although the Census Bureau cross-tabulates Hispanics by race at the tract level, its failure to cross-tabulate them by race *and* family income, makes the creation of mutually exclusive racial-ethnic-income distributions problematic.

We estimated income distributions for white Hispanics, black Hispanics, and Asian Hispanics by applying an algorithm developed by Denton and Massey (1989a) that assumes that, within census tracts, each racial subgroup of Hispanics has the same income distribution as all Hispanics in the tract. We take the known numbers of white Hispanics, black Hispanics, and Asian Hispanics in each tract, allocate them to income categories proportionately, and then subtract the estimated income distributions from the corresponding distributions for whites, blacks, and Asians. In the remainder of this article, the terms “white,” “black,” and “Asian” refer to estimates of non-Hispanic whites, non-Hispanic blacks, and non-Hispanic Asians.

Having created tabulations of mutually exclusive racial/ethnic groups by income and census tract, we sought to establish comparability of income distributions at each census date. In the census, respondents report income for the preceding year: the 1970 census reports 1969 incomes in 15 categories, and the 1980 census gives 1979 incomes in 17 categories. Using the Consumer Price Index, we inflated the 1969 income category boundaries to constant 1979 dollars and then adjusted the boundaries up or down to match those specified in the 1980 census. This adjustment required moving some families from one income category to another; the number to be moved was estimated by linear interpolation, except in the upper tail where a Pareto distribution was fitted (Oaxaca 1977). We had to combine several categories, however, to create a constant distribution at both dates. Our final income distribution included 12 categories.²

It is not practical to report income distributions for 12 categories in 60

² The category boundaries, in 1979 dollars, are: \$0–2,499, \$2,500–\$4,999, \$5,000–\$7,499, \$7,500–\$9,999, \$10,000–\$12,499, \$12,500–\$14,999, \$15,000–\$17,499, \$17,500–\$19,999, \$20,000–\$22,499, \$22,500–\$29,999, \$30,000–\$49,999, and \$50,000+.

SMSAs, so two steps were taken to reduce the amount of data for presentation. First, we selected a subset of key SMSAs for detailed display in tables, choosing SMSAs that contained the five largest populations of each minority group. Because several SMSAs contain the largest number of several groups, this procedure produced a set of 10 SMSAs, which can be seen in table 1.

A second strategy for reducing the data display burden was to cut the number of income categories from 12 to four. Since the official definition of poverty for a family of four in 1979 was \$7,412 (U.S. Bureau of the Census 1986), we took \$7,500 as the upper limit of poverty. Following Smith (1988), we set the lower bound of affluence at roughly four times the poverty level, or \$30,000. Between these points were six income categories, so we let the bottom three represent the lower-middle class and the top three the upper-middle class. The simplified income distribution thus contains the following four categories: poor families with incomes from \$0 to \$7,499; lower-middle-class families with incomes from \$7,500 to \$14,999; upper-middle-class families with incomes from \$15,000 to \$29,999; and affluent families with incomes of \$30,000 or more. Although all distributions are reported using this abbreviated income structure, we always inspected results for the 12-category distribution to make sure that patterns were the same. All income statistics—medians, percentiles, and inequality measures—were computed using the 12-category income distribution, and all figures are given in 1979 dollars.

MEASURING POVERTY CONCENTRATION

Wilson (1987, pp. 49–55) measures the concentration of poverty by defining poverty areas as places where at least 20% of the families have incomes below the federal poverty threshold. He then counts the number of areas that meet this criterion and shows that the proportion of poor in them has increased. Subsequent researchers have quibbled about the definitions of a poverty area (see Ricketts and Sawhill 1988; Bane and Jargowsky 1988), but all have adopted virtually the same approach: define “poverty” or “underclass” areas, count them, and then count the number of people they contain. So far, no study has measured the concentration of poverty by using a single summary statistic, nor has any study measured the propensity for middle-class minorities to live apart from their poor counterparts.

In both instances, well-known indices of segregation are available to measure the desired quality. Asking whether middle-class minorities increasingly reside apart from the poor simply asks whether minority inter-class segregation has increased. Similarly, asking whether the concentra-

tion of poverty has grown simply asks whether minorities' probabilities of intraclass contact have risen. The former is appropriately measured by the index of dissimilarity and the latter by the P^* exposure index (see James and Taeuber [1985], White [1986], and Massey and Denton [1988b] for recent reviews of segregation indices).

The index of dissimilarity was developed to measure the degree of spatial separation between social groups and is easily applied to measure segregation between income classes. For any two income groups X and Y (say, rich and poor), the index of dissimilarity is $D_{xy} = .5 \times \sum |(x_i/X) - (y_i/Y)|$, where x_i and y_i are the numbers of X and Y members in tract i , and X and Y are their SMSA totals. The index measures the extent to which rich and poor are evenly distributed with respect to each other. They are evenly distributed when every tract has the same relative number of rich and poor as the urban area as a whole.

Note that D_{xy} gives the proportion of X and Y members that would have to exchange tracts to achieve an even residential pattern. It is a symmetrical index, so the degree of segregation between X and Y equals that between Y and X . For N income groups, there are $N(N - 1)/2$ possible dissimilarity indices, yielding six possible indices for the four income categories we have defined. In the results that follow, we average these six indices to measure the overall level of interclass segregation (following Duncan and Duncan [1955]) and present the poor-affluent index to measure the extent of spatial separation between families at the top and bottom of the income hierarchy. We also use the dissimilarity index to measure income inequality (see table 1), in which case D_{xy} represents the proportion of families that would have to shift income categories to achieve an even distribution.³

The concentration of poverty is appropriately assessed by another segregation measure known as the P^* index (see Lieberman 1980, 1981). It gives the likelihood of residential contact between or among income groups; it represents the probability that members of any two income groups, X and Y , share the same census tract, providing a simple measure of the degree to which classes are physically exposed to one another by virtue of sharing a tract. The probability of residential contact between

³ When D_{xy} is used to measure income inequality, x_i refers to the amount of money in income class i , and y_i indicates the number of families it contains. When income is evenly distributed, each class receives a proportion of income equal to its proportion of all families. In most applications, however, the dissimilarity index is not used to measure income inequality; a closely related measure known as the Gini index is preferred (Allison 1978; Schwartz and Winship 1979). In the present instance, we use the dissimilarity index to measure inequality because one of our purposes is to consider how unequal income distributions are translated into unequal spatial distributions, a comparison facilitated by having a common metric.

income groups is called the class interaction index and is defined as ${}_xP_y^* = \sum(x_i/X) \times (y_i/t_i)$, where t_i is the total population of tract i and the other variables are denoted as before. The probability of interaction between members of the same income group is called the class isolation index and is computed as ${}_xP_x^* = \sum(x_i/X) \times (x_i/t_i)$.

The P^* is an asymmetric measure of segregation because its value depends partly on the relative number of X and Y members in the urban area, as well as on levels of segregation, and except when $X = Y$, ${}_xP_y^*$ will not equal ${}_yP_x^*$. For N groups, therefore, there are N^2 possible P^* indices, of which N will be isolation indices and $N^2 - N$ will be interaction indices. For the four income classes we have defined, there are 12 interaction indices and four isolation indices. In the present instance, our interest lies with the poor and their spatial isolation from other income classes. We therefore present interaction indices between poor families and those in the three other income groups, as well as the isolation index among the poor themselves, which is a summary measure of poverty concentration.

TRENDS IN METROPOLITAN INCOME INEQUALITY

Table 1 presents trends in poverty and income inequality for whites, blacks, Hispanics, and Asians in 10 metropolitan areas, along with averages for these groups by region and for all 60 SMSAs. For each racial/ethnic group, four facets of family income inequality are depicted: the proportionate distribution of income across four broad income categories; median family income; income inequality as measured by the dissimilarity index; and distance between the top and bottom of the income hierarchy as measured by the interquartile ratio. The latter three measures were computed by using all 12 categories of income rather than the four classes shown in the table. Figures for 1980 (1979 incomes) are presented along with change values since 1970 (1969 incomes). All figures are in 1979 dollars.

Table 1 reveals marked differences between whites and minorities with respect to nearly all facets of income distribution, as well as pronounced variation between metropolitan areas and regions. A fundamental contrast, of course, is the absolute difference in economic well-being between whites and minorities, especially blacks. Across all 60 SMSAs, whites in 1980 had an average median income that was \$9,000 greater than the average for blacks, about \$23,000 versus \$14,000. Incomes of Hispanics and Asians generally lie between these two extremes, but the former are usually closer to blacks, whereas the latter are closer to whites. Thus, the average median income of Hispanics was about \$16,000 in 1980, compared with a figure of around \$19,000 for Asians.

TABLE 1

DISTRIBUTION OF 1980 FAMILY INCOME FOR WHITES, BLACKS, HISPANICS, AND ASIANS IN SELECTED SMSAS
AND CHANGE IN DISTRIBUTION, 1970-80

SMSA AND INCOME CLASS	WHITES		BLACKS		HISPANICS		ASIANS	
	1980	Change	1980	Change	1980	Change	1980	Change
Selected SMSAs:								
Anaheim-Santa Ana-Garden Grove:								
Affluent .....	.431	.084	.253	.146	.221	.016	.340	.023
Upper middle .....	.372	-.073	.391	.001	.416	-.091	.364	-.086
Lower middle .....	.137	-.001	.231	-.095	.237	.042	.167	.014
Poor .....	.060	-.011	.125	-.051	.127	.033	.130	.049
Median income	27,243	2,332	19,585	4,642	19,252	-1,258	22,896	-558
Inequality (<i>D</i>) .....	.270	.032	.269	.025	.258	.034	.284	.048
Ratio Q75/Q25	2.419	.194	2.597	.285	2.511	.454	2.848	.582
Chicago:								
Affluent .....	.421	.063	.180	.044	.174	.016	.336	.045
Upper middle .....	.401	-.062	.318	-.081	.407	-.057	.371	-.067
Lower middle .....	.121	.003	.219	-.046	.224	-.028	.161	-.008
Poor .....	.057	-.005	.283	.083	.195	.069	.132	.030
Median income	27,194	1,660	14,903	-1,047	17,385	-498	22,722	530
Inequality (<i>D</i>) .....	.246	.013	.320	.053	.275	.032	.284	.043
Ratio Q75/Q25	2.253	.127	3.987	1.292	2.799	.565	2.879	.513
Detroit:								
Affluent .....	.402	.051	.199	.044	.268	.030	.420	.125
Upper middle .....	.390	-.069	.324	-.100	.386	-.131	.344	-.073
Lower middle .....	.135	.013	.210	-.013	.175	.007	.121	-.052
Poor .....	.072	.006	.267	.068	.171	.094	.115	.000
Median income	26,380	1,128	15,905	-1,160	20,582	-857	26,196	4,020
Inequality (<i>D</i>) .....	.258	.026	.315	.050	.281	.062	.304	.032
Ratio Q75/Q25	2.370	.237	3.844	1.116	2.883	.927	2.694	.153

Los Angeles—Long Beach:									
Affluent	.390	.060	.170	.052	.143	-.007	.309	.014	
Upper middle	.366	-.061	.327	-.056	.376	-.081	.362	-.080	
Lower middle	.161	.005	.254	-.024	.287	.037	.193	.025	
Poor	.083	-.004	.249	.029	.193	.051	.136	.041	
Median income	25,315	1,521	14,876	-.156	15,539	-2,174	21,379	-1,341	
Inequality (<i>D</i>)	.286	.029	.302	.035	.270	.031	.291	.049	
Ratio Q75/Q25	2.665	.260	3.366	.588	2.719	.398	2.962	.639	
Miami:									
Affluent	.338	.065	.118	.066	.175	.052	.143	-.018	
Upper middle	.373	-.033	.308	-.001	.373	-.049	.390	.038	
Lower middle	.187	-.012	.281	-.071	.258	-.033	.254	-.028	
Poor	.101	-.021	.292	.006	.194	.030	.212	.008	
Median income	22,854	1,880	12,717	.881	16,367	303	15,880	451	
Inequality (<i>D</i>)	.288	.012	.309	.042	.282	.034	.279	-.004	
Ratio Q75/Q25	2.812	.224	3.358	.664	2.829	.485	2.764	-.186	
New York:									
Affluent	.352	.024	.125	.010	.079	.034	.218	.019	
Upper middle	.382	-.038	.311	-.060	.273	.001	.323	-.072	
Lower middle	.168	.008	.269	-.032	.279	-.097	.249	-.018	
Poor	.098	.005	.296	.082	.370	.063	.210	.072	
Median income	23,763	460	12,880	-1,773	10,762	-294	16,375	-1,313	
Inequality (<i>D</i>)	.282	.017	.308	.042	.315	.046	.308	.044	
Ratio Q75/Q25	2.693	.228	3.466	.829	3.638	.984	3.210	.663	
Philadelphia:									
Affluent	.311	.032	.127	.020	.094	.038	.271	.067	
Upper middle	.433	-.056	.311	-.079	.266	-.038	.366	-.048	
Lower middle	.173	.014	.262	-.018	.259	-.105	.186	-.041	
Poor	.083	.010	.300	.076	.381	.105	.176	.022	
Median income	22,963	447	12,974	-1,942	10,481	-1,368	20,227	1,834	
Inequality (<i>D</i>)	.249	.019	.309	.043	.330	.063	.295	.029	
Ratio Q75/Q25	2.383	.280	3.591	.843	3.928	1.292	3.066	.518	

TABLE 1 (Continued)

SMSA AND INCOME CLASS	WHITES		BLACKS		HISPANICS		ASIANS	
	1980	Change	1980	Change	1980	Change	1980	Change
San Antonio:								
Affluent	.285	.061	.091	.051	.086	.026	.088	-.043
Upper middle	.433	-.002	.342	.064	.348	.012	.389	.044
Lower middle	.191	-.033	.280	-.047	.303	-.060	.278	.011
Poor	.090	-.026	.287	-.068	.262	.022	.245	-.012
Median income	21,930	2,394	12,962	2,485	13,205	395	14,338	322
Inequality (D)	.252	-.002	.294	.005	.278	.028	.272	-.027
Ratio Q75/Q25	2.405	.041	3.281	.117	2.874	.433	2.738	-.591
San Francisco-Oakland:								
Affluent	.427	.068	.184	.052	.238	.019	.350	.087
Upper middle	.367	-.064	.322	-.074	.419	-.066	.375	-.055
Lower middle	.137	.004	.243	-.009	.209	.023	.165	-.028
Poor	.069	-.008	.252	.031	.133	.023	.111	-.005
Median income	27,060	1,901	15,193	-.580	20,385	-.348	23,860	2,749
Inequality (D)	.276	.026	.307	.036	.257	.024	.273	.020
Ratio Q75/Q25	2.467	.170	3.508	.602	2.524	.382	2.714	.326
San Jose:								
Affluent	.461	.086	.285	.080	.240	.051	.379	.018
Upper middle	.365	-.068	.360	-.113	.419	-.076	.377	-.051
Lower middle	.120	-.007	.211	.008	.210	.008	.146	.003
Poor	.054	-.011	.143	.024	.131	.017	.098	.030
Median income	28,501	2,644	20,761	-.229	20,222	362	25,167	-.261
Inequality (D)	.264	.028	.275	.049	.257	.028	.270	.031
Ratio Q75/Q25	2.291	.094	2.923	.682	2.530	.389	2.557	.313
Regional averages:								
Northeast:								
Affluent	.312	.031	.133	.034	.132	.058	.272	.049
Upper middle	.427	-.046	.316	-.060	.329	-.076	.343	-.043
Lower middle	.174	.010	.252	-.044	.252	-.049	.206	-.031
Poor	.087	.005	.300	.069	.287	.067	.178	.025
Median income	23,125	525	13,324	-1,052	13,874	-.845	19,622	1,132
Inequality (D)	.252	.016	.308	.043	.301	.059	.302	.033
Ratio Q75/Q25	2.368	.211	3.558	.855	3.318	.894	3.100	.458

Midwest:									
Affluent	.330	.053	.162	.045	.212	-.002	.285	.063	
Upper middle	.437	-.059	.328	-.068	.401	-.095	.373	-.035	
Lower middle	.158	.006	.234	-.026	.213	.012	.182	-.046	
Poor	.075	.000	.276	.049	.175	.084	.160	.017	
Median income	24,063	1,188	14,702	-.653	18,910	-1,558	20,717	1,694	
Inequality (D)	.242	.016	.307	.039	.273	.049	.295	.029	
Ratio Q75/Q25	2.279	.243	3.634	.848	2.723	.639	2.935	.373	
South:									
Affluent	.307	.070	.115	.056	.166	-.009	.200	.049	
Upper middle	.417	-.038	.319	.014	.370	-.054	.374	.014	
Lower middle	.188	-.016	.275	-.056	.261	.003	.239	-.043	
Poor	.088	-.016	.291	-.014	.203	.060	.188	-.020	
Median income	22,690	2,088	13,016	1,187	16,198	-1,686	17,555	1,958	
Inequality (D)	.257	.012	.301	.027	.282	.034	.283	.007	
Ratio Q75/Q25	2.407	.161	3.298	.452	2.839	.522	2.805	-.006	
West:									
Affluent	.326	.061	.168	.075	.158	.028	.223	.010	
Upper middle	.405	-.047	.329	-.025	.398	-.043	.377	-.025	
Lower middle	.183	.001	.256	-.040	.263	-.004	.221	-.003	
Poor	.086	-.016	.247	-.010	.181	.019	.180	.018	
Median income	23,302	1,578	15,012	1,202	16,794	-.44	18,645	-.5	
Inequality (D)	.260	.015	.297	.030	.263	.025	.280	.015	
Ratio Q75/Q25	2.461	.188	3.228	.494	2.625	.387	2.840	.305	
Average for 60 SMSAs:									
Affluent	.318	.056	.142	.054	.166	.016	.237	.042	
Upper middle	.420	-.046	.323	-.028	.376	-.064	.368	-.018	
Lower middle	.178	-.002	.257	-.043	.250	-.007	.216	-.030	
Poor	.085	-.009	.278	.016	.208	.055	.178	.007	
Median income	23,215	1,459	13,947	375	16,435	-1,055	18,892	1,217	
Inequality (D)	.254	.014	.303	.034	.279	.040	.288	.019	
Ratio Q75/Q25	2.386	.198	3.392	.624	2.871	.577	2.902	.260	

These differences partly reflect divergent trends since 1970. In particular, the bifurcation of the middle class noted in national income statistics appears to be limited primarily to minority groups and to be only within certain regions. Among whites, family incomes underwent a significant and almost universal upward shift. Across the 60 SMSAs, the proportion of affluent whites grew by an average .056 during the 1970s, while proportion in the three other classes fell. This pattern was observed in about half of the SMSAs under study, among them Anaheim, Miami, San Antonio, and San Jose (see table 1); it was most common in the South and West. The other half of the SMSAs displayed trends in white income similar to those shown in the regional averages for the Midwest and Northeast, with sharp increases in the proportion of affluent families combined with a sharp decline in the proportion of upper-middle-class families and very small changes up or down in the two lowest income categories. Among the SMSAs shown in the table, such a pattern is found in Chicago, Detroit, Los Angeles, New York, Philadelphia, and San Francisco.

As a result of this widespread income upgrading, the median income for whites rose in 56 of the 60 SMSAs under study with an average increase of about \$1,500. Median income rose most in the South (\$2,000) and least in the Northeast (\$500) and generally did well in the Midwest (up \$1,200) and West (up \$1,600). The four instances of income decline were all located in the Northeast or Midwest, but they were quite small (three were under \$500). For white families in the nation's largest metropolitan areas, therefore, the 1970s did not bring a stagnation of income but brought modest growth and increasing affluence instead.

For metropolitan blacks, however, the picture is quite different. As table 1 indicates, the economic dislocations of the 1970s took a heavy toll on the distribution of black income, particularly in the Northeast and Midwest. In these regions, the most common pattern was polarization on the basis of income, with proportionate declines in the middle classes and sharp increases in the proportions of both the affluent and the poor. Some 35 SMSAs displayed such a pattern, and 22 of these were in the Northeast or Midwest. The proportion of black families in the two middle classes fell by average figures of .060 and .044 in the Northeast, while the average proportion of affluent families increased by .034, and the proportion of poor families grew by .069. Similarly, in the Midwest, the affluent and poor income groups increased by .045 and .049, while the two middle classes fell by .068 and .026.

In general, the proportionate increases were greater at the bottom of the income distribution than at the top, so median family incomes fell—by an average of about \$1,050 in the Northeast and \$650 in the Midwest. In fact, median income fell for blacks in 29 of the 60 SMSAs, all but nine

of these in the Northeast or Midwest. Among SMSAs depicted in the table, the processes of bifurcation and income decline were most extreme in Chicago, Detroit, New York, and Philadelphia.

In contrast, figures on blacks in the South and West reveal an overall process of income upgrading similar to that observed for white families. In all, 24 SMSAs showed a pattern of increases in the two upper classes and declines in the two lower-income groups, and 23 of these were in the South or West.⁴ In the former region, the proportion of black families in the upper-middle and affluent classes increased by .056 and .014, respectively, while proportions in the lower-middle and poor classes fell by .056 and .014. In western SMSAs, the affluent class experienced an average increase of .075, while the proportion in all other classes fell. In both regions, the median black family income increased by about \$1,200. This upgrading is best reflected in Anaheim and San Antonio (see table 1), where black median family incomes grew by \$4,600 and \$2,500, respectively. In all, median black income grew in 31 SMSAs, all but five of them in the South or West.

Hispanic income distributions generally experienced either downgrading or bifurcation during the 1970s. Overall, 26 SMSAs displayed proportionate declines in the two upper-income classes combined with increases in the two bottom classes (i.e., downgrading); and 21 showed declines in the middle classes and increases in the top and bottom groups (i.e., bifurcation). Only 13 SMSAs displayed income upgrading, with declines in the lower classes and increases in the upper-income groups. Regional averages suggest that downgrading prevailed in the Midwest and South, whereas bifurcation typified the Northeast and West. Among the 26 cases of downgrading, 18 were in the Northeast or Midwest.

Either through bifurcation or downgrading, the proportion of poor Hispanic families grew in 47 of the 60 SMSAs, a downward trend that is conservatively estimated, given the change in Hispanic definitions (which should have decreased the proportion of poor Hispanics in the Northeast in 1980 relative to 1970). Reflecting the widespread rise in poverty, median Hispanic income fell in all regions; among individual SMSAs it fell in 37 cases. The 23 increases occurred primarily in the South or West, in areas that had relatively low rates of immigration, such as San Antonio (shown in table 1) or Albuquerque (not shown). Areas that experienced heavy immigration, such as Los Angeles and Chicago, always showed marked increases in the relative number of poor Hispanics and a drop in median income. Hispanic immigrants, of course, come from a socioeco-

⁴ One SMSA showed a pattern of income downgrading characterized by increasing proportions of poor and lower-middle-class blacks and decreasing shares in higher-income groups.

conomic background that places them toward the lower end of the U.S. income hierarchy (Massey and Schnabel 1983).

The Asian population of the United States also experienced heavy immigration during the 1970s, but the socioeconomic composition of Asian immigrants is bimodal, with clusters at the top and the bottom of the hierarchy (Wong 1986). Asian immigration, therefore, tends to reinforce pressures for bifurcation emanating from economic trends in the 1970s. The prevailing pattern of change for Asians was one of proportionate declines in the two middle classes and relative increases in the proportions of the poor and the affluent. This pattern of bifurcation is seen in the averages for the Northeast, the Midwest, and the West, whereas Asians in southern SMSAs evinced an overall pattern of income upgrading. Bifurcation was generally most pronounced in the Northeast, where proportions in the top and bottom classes grew by average figures of .049 and .025, respectively, while proportions in the middle classes fell by .043 and .031. Bifurcation was also sharp in the Midwest but less marked in the West.

Among individual SMSAs, there were 24 instances of bifurcation in Asian income distributions—all but two in the Northeast, Midwest, or West—and 27 instances of upgrading, 15 in the South. There were only nine instances where the Asian income distribution shifted downward, most of these in the South or West. Among SMSAs that experienced bifurcation, the proportionate increase among the affluent generally outweighed that of the poor, so median incomes rose in all regions except the West, where it remained essentially stable. The increases ranged from almost \$2,000 in the South to \$1,100 and \$1,700 in the Northeast and Midwest, respectively. Across SMSAs, median incomes rose in 44 cases and fell in 16. No southern SMSA experienced a decline in median Asian income.

Thus, trends in family income distribution differ substantially by group and region. In spite of the stagflation of the 1970s, white income distributions shifted upward across all regions, and median family income grew in the majority of metropolitan areas. Minorities, in contrast, frequently experienced downgrading or polarization in their income distributions, particularly in the Northeast and Midwest. This interregional and intergroup heterogeneity suggests that much of the increase in income inequality noted at the national level reflects a widening gap between affluent whites and poor minority groups, especially blacks and Hispanics.

Rising income inequality, however, also reflects the growth of inequality within minority groups themselves, as shown by the dissimilarity indices and interquartile ratios of table 1. These figures demonstrate that increases in income inequality among whites were less pronounced than among minorities. Among whites, the expansion of the affluent class,

combined with the relative stability of the lower-middle and poor income classes, did cause inequality to rise somewhat, but generally the increases were modest. On average, the dissimilarity index for whites increased only .014; and in 49 of the 60 SMSAs, the changes were less than .020. Similarly, although the distance between the top and bottom of the distribution increased, the interquartile ratios did not rise very much, increasing by an average of only .198. On average, white families at the seventy-fifth income percentile had incomes that were 2.4 times those at the twenty-fifth percentile; there were no strong regional differences.

Whether measured in terms of dissimilarities or of interquartile ratios, income inequality was greater for blacks, and it increased more sharply during the 1970s. Dissimilarity in black family incomes averaged about .300 in 1980 (compared with .254 for whites); and the average increase was .034 (.014 for whites). Similarly, the distance between the top and the bottom of the income distribution widened appreciably, as the average black interquartile ratio grew from 2.8 to 3.4, for a rate of increase that was three times that of whites. The changes were especially pronounced in the Northeast and Midwest. Among SMSAs shown in the table, increases in black income inequality were most dramatic in Chicago and Detroit, where dissimilarities increased by .050 to stand at roughly .320 in 1980, and interquartile ratios grew by respective figures of 1.3 and 1.1, reaching almost 4.0 in 1980. The ratio for whites never exceeded 3.0.

Hispanic families in the Northeast also experienced a sharp increase in income inequality. In this region, Hispanic income dissimilarity increased by .059 to reach a high level of .301 in 1980 (compared with figures of .308 and .252 for blacks and whites in that region). Similarly, the interquartile ratio increased to 3.3 in 1980, up by .894 since 1970. These trends are biased, of course, by the change in Hispanic definitions between 1970 and 1980. Since higher-status, non-Puerto Rican Hispanics were excluded in the former year but included in the latter, the apparent increase in income heterogeneity is obviously inflated. Nonetheless, the great dissimilarities and interquartile ratios in 1980 accurately indicate the high degree of income inequality among Hispanics in that year.

Except for Hispanics in the Northeast, levels of Hispanic and Asian income inequality were well below those of blacks, although still greater than those of whites. Across all SMSAs, Hispanic income dissimilarity averaged .279, and Asian dissimilarity averaged .288, representing respective increases of .019 and .040 since 1970. Across regions, Hispanic income dissimilarity varied narrowly between about .260 and .280 (excluding the Northeast), whereas Asian dissimilarity varied between .280 and .300. The interquartile ratios for both groups generally ranged between 2.6 and 2.9.

In summary, the economic instability of the 1970s had markedly differ-

ent effects on different racial and ethnic groups. Whites generally escaped the worst ravages of recession and inflation; Asians also did not fare too badly. The greatest dislocations were experienced by blacks in the Northeast and Midwest, where median incomes fell, poverty rates grew, and economic inequality increased rapidly. Moreover, although blacks in the South and West experienced rising incomes and growing affluence, income inequality rose at rates substantially above those of whites. The 1970s also brought dislocation to Hispanics, who displayed rising levels of poverty, growing inequality, and falling incomes across all regions; these trends, however, were notably more severe in the Northeast.

TRENDS IN INTERCLASS SEGREGATION

An increase in the prevalence of poverty is not, by itself, a sufficient condition for the concentration of poverty. As the relative number of poor increases, the potential for their spatial concentration also grows; but the extent to which this potential is realized also depends, in part, on the propensity for income classes to live apart from one another. A major component of Wilson's (1987) argument, therefore, is that affluent and middle-class blacks increasingly deserted the ghetto during the 1970s to live in neighborhoods apart from the black poor (pp. 7–8). Table 2 tests this hypothesis by presenting measures of interclass segregation for whites, blacks, Hispanics, and Asians.

These indices generally confirm Wilson's hypothesis that black segregation by income has grown. Spatial dissimilarity between black income groups increased over the 1970s, often quite sharply, and this trend was opposite to those of other racial/ethnic groups. Average residential dissimilarity grew by .029 among blacks, while it fell by .013, .054, and .138 among whites, Hispanics, and Asians, respectively.⁵ This contrast occurred in all regions: interclass segregation among whites either decreased or stayed the same, that among Hispanics and Asians declined, and that among blacks grew. Among the 60 SMSAs under study, 41 experienced a decrease in white segregation by income, and the corresponding figures for Hispanics and Asians were 52 and 59. In contrast, 51 SMSAs displayed an increase in the level of black income segregation. When segregation between affluent and poor income groups is considered, a similar pattern is observed.

⁵ The very pronounced decline in the level of Asian segregation probably reflects the effect of heavy immigration into SMSAs containing very small Asian populations. Thus, the SMSA with the largest Asian population, San Francisco, experienced a very small change in income segregation over the decade, even though it sustained substantial Asian immigration. In some cases, the Asian population doubled or tripled in size, meaning that most Asians resident in 1980 had arrived since 1970.

Thus, trends in income segregation appear broadly consistent with Wilson's line of reasoning. Affluent and middle-class blacks have increasingly separated themselves residentially from poor blacks, and levels of black interclass segregation increased during the 1970s. Meanwhile, trends for whites, Hispanics, and Asians moved in the opposite direction. Three features of the indices reported in table 2, however, question the relevance of these trends in explaining the unusually high and growing concentration of poverty among blacks.

First, the level of interclass segregation evinced by blacks is low compared with that of other minority groups. If interclass segregation were a primary factor behind the high concentration of black poverty, we would expect blacks to display greater segregation by income than other minority groups. In fact, the average level of black interclass segregation (.342) is well below that of Hispanics (.479) or Asians (.565). Indeed, average income segregation for blacks is below that of Hispanics in 40 cases and under that of Asians in 57 cases. This pattern is repeated in all regions except the West, where blacks display a slightly higher level of income segregation than Hispanics. The same pattern is maintained when levels of segregation between affluent and poor families are considered.

Second, levels of black segregation are not high in an absolute sense. Dissimilarity indices below .300 are generally considered to be low, whereas those between .300 and .600 are moderate, and those above .600 are high (Kantrowitz 1973). By these criteria, the indices of black interclass segregation fall almost exclusively in the low and moderate ranges. Only one SMSA displayed an average black interclass index in excess of .600—Salt Lake City (not shown in table 1). In contrast, 14 SMSAs had average interclass segregation indices in the low range. Even when dissimilarity indices between affluent and poor blacks are considered, they extend into the high range in only five cases.

Finally, patterns observed across metropolitan areas contradict those we would expect if rising income segregation were really behind the rise in poverty concentration. The highest levels of interclass segregation are observed in black communities notable for their lack of concentrated black poverty (e.g., Anaheim, San Jose), while metropolitan areas with very high concentrations of black poverty (e.g., New York, Philadelphia, and Detroit) have low to moderate levels of segregation by income. Chicago is an important test case, since Wilson (1987) specifically argues that its sharp increase in poverty concentration from 1970 to 1980 stems, in part, from the growing reluctance of nonpoor blacks to live near the black poor. Yet in that SMSA, there was virtually no change in the propensity for blacks to segregate on the basis of income during the 1970s.

These findings make it difficult to explain high concentrations of black poverty as a result of growing income segregation in the black commu-

TABLE 2
RESIDENTIAL DISSIMILARITY BETWEEN INCOME GROUPS AMONG BLACKS, HISPANICS, AND ASIANS IN
SELECTED METROPOLITAN AREAS, 1970-80

METROPOLITAN AREA	WHITES		BLACKS		HISPANICS		ASIANS	
	1980	Change	1980	Change	1980	Change	1980	Change
Average dissimilarity between all income classes:								
Anaheim-Santa Ana	.235	-.027	.589	.167	.326	-.078	.449	-.206
Chicago	.256	.006	.317	.009	.370	-.075	.534	-.056
Detroit	.264	.006	.270	.032	.540	-.046	.672	-.080
Los Angeles-Long Beach	.284	.013	.338	.028	.313	-.029	.440	-.030
Miami	.280	-.003	.291	.013	.289	-.038	.563	-.190
New York	.302	.030	.348	.039	.401	.031	.547	-.045
Philadelphia	.274	.012	.313	.015	.579	.120	.646	-.091
San Antonio	.291	-.033	.356	.107	.290	-.057	.587	-.181
San Francisco-Oakland	.278	.003	.335	.030	.365	-.011	.403	.001
San Jose	.233	-.036	.463	-.056	.309	-.026	.406	-.100
Northeast	.254	.007	.330	.025	.519	-.028	.617	-.128

Midwest .....	.259	-.001	.314	.031	.601	-.051	.650	-.119
South .....	.255	-.027	.310	.019	.478	-.072	.565	-.180
West .....	.248	-.018	.413	.041	.361	-.052	.462	-.108
Average of 60 SMSAs .....	.254	-.013	.342	.029	.479	-.054	.565	-.138
Dissimilarity between affluent and poor:								
Anaheim-Santa Ana .....	.343	-.024	.719	.143	.451	-.109	.587	-.160
Chicago .....	.389	.021	.502	.008	.512	-.113	.683	-.033
Detroit .....	.412	.023	.436	.051	.665	-.089	.808	-.060
Los Angeles-Long Beach .....	.419	.013	.518	.013	.478	-.025	.572	-.016
Miami .....	.425	.023	.428	-.025	.458	-.046	.654	-.184
New York .....	.466	.048	.541	.052	.605	.069	.712	-.031
Philadelphia .....	.430	.037	.486	.021	.798	.244	.788	-.007
San Antonio .....	.441	.030	.510	.148	.457	-.094	.762	-.071
San Francisco-Oakland .....	.406	.001	.497	.027	.511	-.010	.558	.020
San Jose .....	.332	-.056	.647	.005	.452	-.016	.521	-.096
Northeast .....	.398	.016	.482	.040	.676	.024	.758	-.114
Midwest .....	.405	.010	.477	.036	.720	-.073	.795	-.070
South .....	.395	-.031	.461	.021	.608	-.101	.702	-.144
West .....	.372	-.032	.561	.045	.496	-.075	.583	-.104
Average of 60 SMSAs .....	.391	-.014	.495	.034	.614	-.063	.700	-.112

nity. Blacks generally display moderate levels of interclass segregation, are less segregated by income than other minority groups, and are most segregated by income in areas with little concentrated poverty. Upper-income blacks are probably no different from the affluent of other ethnic groups in trying to separate themselves from the poor; if anything, they have been less able to achieve this end than Hispanics and Asians. Our results, therefore, paradoxically confirm Wilson's view that black interclass segregation has increased but question its importance in accounting for the emergence of concentrated urban poverty.

TRENDS IN THE CONCENTRATION OF POVERTY

Table 3 examines levels and trends in poverty concentration for whites, blacks, Hispanics, and Asians. It presents P^* indices computed between the poor of each racial/ethnic group and members of other income classes, defined without regard to race or ethnicity. The indices indicate the probability that poor whites, poor blacks, poor Hispanics, or poor Asians share a tract with families in their own and other income classes. For each group and SMSA, four indices are presented. The top index gives the probability of poor-affluent contact; the next down states the likelihood of contact between poor and upper-middle-class families; the third down gives the probability that poor families share a tract with lower-middle-class families; and the last line presents the likelihood that poor families share a tract with other poor families.

The first three measures represent interaction indices between the poor and other income groups, and the last is the class isolation index for the poor. It is a direct measure of poverty concentration and represents the proportion of poor that live in the tract of the average poor family in each racial and ethnic group. The higher the index, the greater the spatial isolation of the poor and the higher the concentration of poverty. Since the four income classes together represent the universe of possible neighbors for the poor of any racial or ethnic group, the one isolation and three interaction indices sum to 1.0 in each group.

These indices reveal widespread differences in the spatial concentration of poverty among the four racial and ethnic groups and sharp contrasts between regions. Poor whites generally display the lowest levels of spatial isolation, and the degree of poverty concentration rises steadily as one moves from whites to Asians, to Hispanics, and, finally, to blacks. The concentration of minority poverty is greatest in the Northeast and Midwest, where it also increased most dramatically during the 1970s.

Poverty is not very concentrated among whites in any region. The average class isolation index for poor whites is only .137, and the regional averages vary narrowly between .127 and .146. Poor white families are

TABLE 3

PROBABILITY OF RESIDENTIAL CONTACT BETWEEN POOR BLACKS, HISPANICS, AND ASIANS AND MEMBERS OF OTHER INCOME CLASSES
(IRRESPECTIVE OF RACE/ETHNICITY) IN SELECTED METROPOLITAN AREAS, 1970-80

SMSA AND INCOME CLASS	WHITES		BLACKS		HISPANICS		ASIANS	
	1980	Change	1980	Change	1980	Change	1980	Change
Selected SMSAs:								
Anaheim-Santa Ana-Garden Grove:								
Affluent	.354	.071	.280	.137	.237	.029	.288	-.002
Upper middle	.389	-.057	.401	-.032	.410	-.051	.399	-.087
Lower middle	.171	-.005	.208	-.075	.230	.018	.201	.036
Poor	.087	-.009	.110	-.030	.123	.004	.111	.023
Chicago:								
Affluent	.329	.038	.131	.028	.164	.011	.205	-.006
Upper middle	.410	-.061	.272	-.076	.366	-.066	.342	-.077
Lower middle	.158	.006	.229	-.062	.233	-.018	.214	-.012
Poor	.103	.017	.367	.111	.237	.073	.239	.095
Detroit:								
Affluent	.309	.031	.155	.019	.194	.019	.243	.046
Upper middle	.400	-.068	.303	-.096	.346	-.104	.369	-.070
Lower middle	.167	.013	.227	-.013	.210	.001	.192	-.007
Poor	.124	.023	.315	.090	.250	.084	.196	.031
Los Angeles-Long Beach:								
Affluent	.278	.029	.118	.029	.139	-.007	.204	.025
Upper middle	.373	-.060	.303	-.045	.346	-.068	.357	-.054
Lower middle	.212	.015	.286	-.011	.291	.028	.252	.007
Poor	.137	.016	.293	.026	.224	.047	.187	.022
Miami:								
Affluent	.235	.033	.109	.044	.151	.036	.194	.015
Upper middle	.349	-.020	.279	-.016	.343	-.034	.363	.002
Lower middle	.241	-.007	.278	-.064	.276	-.025	.246	-.022
Poor	.175	-.006	.333	.035	.230	.022	.196	.005

TABLE 3 (Continued)

SMSA AND INCOME CLASS	WHITES		BLACKS		HISPANICS		ASIANS	
	1980	Change	1980	Change	1980	Change	1980	Change
New York:								
Affluent	.236	-.004	.086	-.007	.085	.014	.140	-.024
Upper middle	.371	-.043	.261	-.066	.262	-.032	.313	-.042
Lower middle	.217	.008	.277	-.044	.273	-.066	.271	-.012
Poor	.177	.039	.376	.117	.380	.085	.277	.078
Philadelphia:								
Affluent	.229	.011	.104	.003	.084	-.021	.171	-.024
Upper middle	.422	-.057	.285	-.068	.265	-.071	.361	-.065
Lower middle	.211	.017	.264	-.022	.279	-.024	.241	.022
Poor	.138	.030	.347	.087	.372	.115	.227	.067
San Antonio:								
Affluent	.185	.041	.086	.035	.079	.029	.128	-.005
Upper middle	.403	.007	.311	.020	.315	.031	.371	-.002
Lower middle	.245	-.043	.285	-.059	.304	-.050	.281	-.017
Poor	.168	-.005	.318	.004	.301	-.010	.220	.024
San Francisco-Oakland:								
Affluent	.325	.051	.144	.026	.220	.023	.235	.033
Upper middle	.376	-.060	.321	-.049	.383	-.054	.346	-.037
Lower middle	.178	.004	.256	-.010	.225	.014	.226	-.003
Poor	.120	.005	.279	.033	.172	.017	.192	.007
San Jose:								
Affluent	.372	.080	.262	.085	.241	.038	.309	.042
Upper middle	.382	-.061	.398	-.076	.395	-.056	.391	-.045
Lower middle	.158	-.011	.199	-.025	.218	.003	.181	-.006
Poor	.088	-.009	.141	.016	.146	.016	.119	.009

Regional averages:									
Northeast:									
Affluent	.236	.015	.119	.005	.132	.016	.178	-.008	
Upper middle	.417	-.049	.305	-.066	.331	-.048	.363	-.071	
Lower middle	.207	.008	.260	-.023	.254	-.029	.240	.007	
Poor	.140	.026	.316	.085	.283	.061	.220	.072	
Midwest:									
Affluent	.253	.037	.126	.026	.162	.007	.189	.013	
Upper middle	.428	-.057	.305	-.058	.367	-.084	.369	-.076	
Lower middle	.192	.004	.247	-.025	.233	.001	.228	.004	
Poor	.127	.016	.322	.057	.238	.075	.214	.059	
South:									
Affluent	.224	.054	.115	.044	.157	.020	.194	.041	
Upper middle	.401	-.019	.298	-.007	.347	-.037	.369	-.026	
Lower middle	.229	-.022	.271	-.048	.259	-.017	.240	-.031	
Poor	.146	-.013	.316	.012	.237	.033	.196	.016	
West:									
Affluent	.251	.051	.149	.053	.170	.033	.204	.037	
Upper middle	.398	-.036	.340	-.011	.369	-.026	.376	-.032	
Lower middle	.221	-.003	.270	-.026	.265	-.002	.247	-.004	
Poor	.130	-.011	.241	-.017	.196	-.005	.174	-.001	
Average of 60 SMSAs:									
Affluent	.239	.042	.127	.035	.156	.020	.193	.025	
Upper middle	.409	-.037	.312	-.030	.354	-.046	.370	-.047	
Lower middle	.215	-.006	.264	-.033	.254	-.012	.239	-.009	
Poor	.137	.001	.297	.028	.235	.037	.198	.031	

relatively unlikely to share a tract with other poor families; the probability is usually .150 or less (in 41 cases), and it never exceeds .200. Poor whites are much more likely to share a tract with upper-middle-class, even affluent, families. The average probability of residential contact between poor whites and the upper-middle class is .409, and it is .239 with the affluent. Again, this pattern varies little by region; in 57 of the 60 SMSAs, poor whites are more likely to share a tract with affluent and upper-middle-class families than with poor families, a pattern that changed little between 1970 and 1980.

The concentration of poverty is much greater among blacks, and the spatial isolation of the poor varies more sharply between regions. The average isolation index for blacks is nearly .300, meaning that, in the SMSAs under study, the average poor black family lives in a tract that is about 30% poor. This figure, however, obscures a fairly large gap between western SMSAs, where the class isolation index is relatively low (.241), and SMSAs in the Northeast, Midwest, and South, where isolation indices are quite high (.316, .322, and .316, respectively). The concentration of poverty among blacks exceeds that of whites in all 60 SMSAs, and the class isolation index for poor blacks is .300 or higher in 26 SMSAs, all except one of them outside the West.

Among SMSAs shown in the table, the black poor were most isolated in Chicago, where the class isolation index was .367, followed by Philadelphia (.347), Miami (.333), San Antonio (.318), and Detroit (.315). In each of these metropolitan areas, poor blacks were more likely to share a tract with other poor families than with any other income group, a pattern that prevailed in about half of the SMSAs under investigation. In these metropolitan areas, which are heavily concentrated in the Northeast and Midwest, poor blacks are relatively unlikely to experience regular contact with members of other income groups, particularly the affluent, confirming a central tenet of Wilson's argument.

Not only is poverty more concentrated among blacks than among whites, but it increased more dramatically over the 1970s, particularly in the Northeast and Midwest. In the former region, the isolation index for poor blacks rose sharply by .085, and in the latter the increase was .057. Since the four P^* indices sum to 1.0, an increase in the isolation of the poor implies a decrease in interaction with other income groups. In the Northeast and Midwest, the growing isolation of poor blacks occurred mainly through a reduction in the likelihood of contact with families in the two middle-income groups. During the 1970s, in other words, poor blacks in northeastern and midwestern SMSAs became progressively isolated from middle-class society. This trend was most extreme in Chicago, where the isolation of poor blacks jumped by the astounding figure of

.111 to reach .367, a level of isolation 3.7 times that experienced by poor whites in that SMSA.

In the South, the changes were less pronounced, but levels of isolation among poor blacks were still high. Although the class isolation index for poor blacks increased by only .012 over the decade, the average was .316, suggesting that concentrated black poverty is a long-standing pattern in the South. In contrast, levels of spatial isolation among poor blacks not only were lower in the West but falling. These regional contrasts suggest that black Americans are not only becoming more divided within urban areas on the basis of income; they are becoming more divided on a variety of dimensions between regions as well. Blacks in the West have higher incomes, experience lower levels of racial segregation, display less income inequality, and evince lower concentrations of poverty than do blacks in other regions of the United States.

Poor Hispanic families also experience more spatial isolation than poor whites and display greater regional variation, but the degree of their isolation rarely reaches the level experienced by poor black families. The isolation index for poor Hispanics was greater than that of whites in every case but less than that of blacks in 52 instances. On average, the probability that poor Hispanics shared a tract with other poor families was .235 (compared with .297 for blacks and .137 for whites) and, like whites, they were more likely to have residential contact with members of the upper-middle class than with members of other income groups (the average interaction index was .354 for the upper-middle class, compared with figures of .254 and .156 for the lower-middle and affluent classes, respectively).

Poor Hispanics were most isolated in the Northeast and least isolated in the West, with the Midwest and South lying in between. Among all SMSAs, only 12 displayed class isolation indices for poor Hispanics above .300, seven of which were in the Northeast and four in the South; none was in the West. The highest concentrations of Hispanic poverty were found in New York and Philadelphia, where isolation indices reached extreme levels usually attained only by poor blacks (.380 and .372, respectively). Both of these areas contain large numbers of Caribbean Hispanics, a majority of whom do not identify themselves as white and whose segregation is markedly higher than that of other Hispanics, suggesting the potential effect of race and racial segregation on poverty concentration (Denton and Massey 1989*b*).

When trends in Hispanic poverty are considered, the sharpest increases are observed in the Northeast and Midwest, with moderate increases in the South and West. Hispanics in New York, Philadelphia, Chicago, and Detroit displayed the largest increases in the level of poverty concentra-

tion, with increments of .085, .115, .073, and .084, respectively. In contrast, the isolation of poor Hispanics in Los Angeles and Miami increased only moderately, .047 and .022, respectively. In the Northeast, trends are probably biased downward by the change in Hispanic definitions and so must be taken as conservative.

Among the three minority groups, poor Asians generally displayed the least spatial isolation. The average isolation index for poor Asians was .198, and its value was under .200 in most SMSAs (35) and exceeded .300 in only one case (Atlanta). According to national and regional averages, poor Asians were most likely to share a tract with upper-middle-class families, a pattern that prevailed in all SMSAs save one. Regional variation in the concentration of poverty was not great, but, as with other minority groups, isolation indices for the Asian poor were highest in the Northeast and Midwest (.220 and .214) and lower in the South (.196) and West (.174). Averages for the Northeast and Midwest increased rather sharply from 1970 to 1980, .072 and .058, respectively. But even in these regions, poor Asians experienced little spatial isolation compared with the poor of other minority groups.

Thus, the concentration of poverty is confined largely to Hispanics and blacks in certain regions. If there is an urban underclass that is isolated from the rest of American society by a geography of poverty, it appears to be composed primarily of blacks outside the West and of Hispanics in the Northeast. There is little evidence of concentrated poverty among Asians and even less among whites in the nation's largest urban areas. In other words, concentrated poverty is not a general condition of urban society but is isolated within specific groups and regions.

SEGREGATION AND THE CONCENTRATION OF POVERTY

In attempting to account for the apparent increase in the concentration of poverty in U.S. cities, Wilson and others have focused primarily on changes in minority class structure and trends in interclass segregation. The first is obviously relevant: a relatively large number of poor families is a necessary condition for the concentration of poverty. We have argued, however, that levels and trends in interclass segregation are not sufficient to explain current patterns of poverty concentration. In this section, we advance an alternative explanation: changes in class structure interact with patterns of racial/ethnic segregation to produce the unusual concentrations of poverty observed among blacks and Hispanics during the 1970s. Understanding segregation by race is essential to understanding the plight of the underclass.

Segregation's importance stems from the fact that it acts to concentrate spatially any increase in the rate of minority poverty. Consider a minority

group that is highly segregated from the majority. In this case, minority families reside in tracts that are almost exclusively composed of other minority members. When there is a sharp increase in minority poverty, virtually all of the increase in the number of poor people is absorbed by tracts where minorities already live, so the proportion of poor in them rises, and the concentration of poverty grows.

Now, suppose a minority group is characterized by a low degree of segregation from the majority. In this case, tracts where minority members live are composed predominantly of majority members. When there is an increase in minority poverty, the concentration of poverty does not grow substantially as long as the majority's poverty rate does not also rise. Even with the increase in minority poverty, most minority families live in tracts dominated by nonpoor majority members. Low levels of segregation, in essence, buffer the spatial consequences of a rise in the poverty rate by diluting its effect over a large number of neighborhoods inhabited by nonpoor majority families.

In order to demonstrate the effect of segregation on the concentration of poverty, we undertook a regression analysis to compare the relative abilities of racial/ethnic segregation, class segregation, and income composition in accounting for variations in the level of poverty concentration (table 4). For each minority group, we regressed the poverty isolation index (transformed into a logit to enable OLS estimation)⁶ on three variables: the proportion of poor families (indicating class structure), the average interclass dissimilarity index (indicating segregation by income), and residential dissimilarity from whites (indicating segregation by race/ethnicity). We also add controls for the relative size of the minority group and sample selectivity.⁷ Two models are specified for each group: the first includes the main explanatory variables as simple additive factors, and the second allows the poverty rate to interact with racial/ethnic segregation, reflecting our hypothesis that a given level of poverty yields a higher concentration of poverty when segregation is high than when it is low.

⁶ The logit transformation for any variable p whose range is from 0 to 1 is: $\text{logit}(p) = \ln[p/(1-p)]$. It transforms a restricted-range variable, whose distribution violates the assumptions of OLS, into an infinite-range variable that conforms to OLS assumptions.

⁷ Of the 318 SMSAs defined by the Census Bureau in 1980, our sample includes only the 50 largest plus 10 others with sizable Hispanic populations. Since these SMSAs are highly selected, estimates of slope parameters are biased unless a correction is made (Berk 1983). We followed Massey and Denton (1987) in using the method of Olsen (1980) to estimate a selection equation that predicts the likelihood of inclusion in the sample, P , yielding an instrumental variable $P - 1$, that can be included as a control to eliminate the effect of sample selectivity from the final equation estimates. The estimated selection equation was $P = -3.680 + .308 \times \log(\text{SMSA size})$, estimated over 318 SMSAs with an r^2 of .593.

TABLE 4

REGRESSION OF POVERTY CONCENTRATION ON SELECTED EXPLANATORY VARIABLES IN 60 SMSAs, 1980

VARIABLES	BLACKS		HISPANICS		ASIANS		POOLED GROUPS	
	Main Effects Model	Interaction Model	Main Effects Model	Interaction Model	Main Effects Model	Interaction Model	Main Effects Model	Interaction Model
Major explanatory variables:								
Proportion of group in poverty	4.885** (.461)	. . . . .	2.979** (.466)	. . . . .	3.792** (.720)	. . . . .	3.526** (.297)	. . . . .
Residential dissimilarity from whites . . . . .	.843** (.199)	. . . . .	1.000** (.277)	. . . . .	1.327** (.390)	. . . . .	1.025** (.157)	. . . . .
Interaction of dissimilarity and proportion in poverty . . . . .	. . . . .	5.136** (.434)	. . . . .	4.966** (.080)	. . . . .	8.693** (1.384)	. . . . .	5.351** (.334)
Average interclass dissimilarity . . . . .	.580 (.340)	.423 (.378)	.582** (.226)	.621** (.235)	1.098* (.522)	.857 (.495)	.679** (.164)	.695** (.169)
Control variables:								
Group's proportion of SMSA population . . . . .	.887** (.316)	1.109** (.349)	.538 (.320)	.617 (.334)	2.961 (2.405)	2.169 (2.401)	.820** (.226)	.861** (.235)
Selectivity instrument ($P - 1$) . . . . .	.119 (.111)	-.103 (.098)	-.092 (.125)	-.156 (.126)	.160 (.150)	.083 (.133)	.053 (.073)	-.053 (.067)
Group indicators:	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Blacks . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	-.085 (.068)	-.101 (.064)
Hispanics . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	-.020 (.041)	-.011 (.040)
Intercept	-3.103** (.238)	-2.217 (.201)	-2.689** (.161)	-2.153** (.140)	-3.231** (.391)	-2.507** (.352)	-2.819** (.113)	-2.207** (.106)
R^2 . . . . .	.828**	.780**	.721**	.685**	.500**	.473**	.774**	.752**
N	60	60	60	60	60	60	180	180

* $P < .05$.
 ** $P < .01$.

Because of multicollinearity among the regressors, the interactive and main effects are not estimated in the same model.

These models indicate that segregation is the key factor accounting for variation in the concentration of poverty. Class structure is important but its effect depends on the level of racial or ethnic segregation that prevails in a metropolitan area. The interactive models show that, whatever the effect of class composition in generating geographically concentrated poverty, it is amplified substantially when segregation is high (see the very significant interaction coefficients). Interclass segregation plays a secondary role in promoting concentrated poverty among Hispanics and Asians, but it has no detectable effect whatsoever among blacks. When dummy variables for region are included in the models, the Northeast and Midwest yield significantly positive coefficients when class-based variables are included by themselves, but the coefficients become negative or insignificant when the interaction term is added (regressions not shown).

The last two columns of the table consider the extent to which variables in the model can account for intergroup differences in the extent of poverty concentration. Data for the three groups were concatenated into one large data set of 180 cases, and dummy variables were included to indicate group membership, with Asians being the reference category. In both the additive and interactive equations, the group dummies are insignificant; once differences in levels of racial/ethnic segregation, poverty, and interclass segregation are controlled, blacks, Hispanics, and Asians experience the same concentration of poverty. When segregation variables are removed from the models, however, the coefficient for blacks returns to significance, indicating that racial segregation—not class segregation—is the crucial factor that accounts for the very high concentration of poverty among blacks (regression not shown).

Table 5 repeats the regression analyses of table 4, using 1970–80 change values instead of static measures for 1980. Since multicollinearity among the regressors is small when change scores are used, main and interaction effects are estimated in the same model. Consistent with earlier results, changes in the level of interclass segregation have no effect in explaining trends in the concentration of poverty. Rather, for Hispanics and Asians these trends are explained largely by changes in the rate of poverty itself. Among blacks, however, the influence of changes in the class structure is again amplified by the effect of changing racial segregation. In fact, the strongest single effect in the model for blacks is the interaction between segregation and poverty composition.

In short, the class-based arguments put forth by Wilson and others to explain levels and trends in the concentration of poverty are seriously incomplete without reference to patterns and levels of racial and ethnic

TABLE 5

REGRESSION OF 1970-1980 CHANGE IN POVERTY CONCENTRATION ON SELECTED EXPLANATORY VARIABLES FOR BLACKS, HISPANICS, AND ASIANS IN 60 SMSAs

Variables	Blacks	Hispanics	Asians	Pooled Groups
Major explanatory variables:				
Change in proportion of group in poverty .....	.719** (.083)	.728** (.111)	.624** (.197)	.662** (.074)
Change in residential dissimilarity from whites .....	.209** (.048)	-.089 (.080)	.268** (.093)	.057 (.043)
Interaction between change in dissimilarity and change in poverty composition	1.868** (.694)	.181 (.952)	.480 (1.637)	.037 (.558)
Change in average interclass dissimilarity .....	.099 (.055)	-.090 (.117)	-.058 (.088)	-.042 (.053)
Control variables:				
Change in group's proportion of population .....	.362 (.259)	.152 (.161)	-1.594** (.548)	.051 (.132)
Selectivity instrument ($P - 1$) .....	.021 (.013)	.042 (.030)	.050 (.027)	.034 (.015)
Group indicators:				
Blacks .....	...	...	...	-.003 (.012)
Hispanics .....	...	...	...	-.026** (.009)
Intercept .....	.031** (.008)	.001 (.012)	.085** (.019)	.037** (.010)
R^2 .....	.855**	.564**	.347**	.478**
N	60	60	60	180

** $P < .01$.

segregation. Our results suggest that unusually high and rising concentrations of poverty among blacks outside the West and Hispanics in the Northeast cannot be attributed to the flight of middle-class minorities from ghetto or barrio neighborhoods. Rather, they reflect the bifurcation of black and Hispanic income distributions during a period of unusual economic stress and the consequent rise of poverty within a highly segregated residential environment.

SUMMARY AND CONCLUSIONS

The 1970s were a decade of unusual economic flux during which structural shifts in the distribution of income interacted with patterns of segregation to differentiate sharply the fortunes of whites, blacks, Hispanics, and Asians in American cities. Whites were least touched by the economic travails of the 1970s. Over the course of the decade, the proportion of affluent families increased and median incomes rose; these changes were accompanied by modest increases in income inequality. What poverty did exist among whites displayed little tendency to concentrate spatially. These trends were remarkably widespread in all regions of the country.

Asians were somewhat more affected by the economic instability of the 1970s, but on the whole they did not suffer markedly. The structure of Asian income bifurcated to some degree, with proportionate declines in the middle classes and increases among the affluent and the poor, but the growth at the top of the income distribution generally outweighed that at the bottom, so median incomes rose across all regions and SMSAs. Income inequality increased, especially in the Northeast and Midwest; but among Asians it was not likely to be translated into concentrated urban poverty.

The economic instability of the 1970s most profoundly affected the fortunes of blacks. Outside of the West, particularly in the Northeast and Midwest, the 1970s brought a sharp bifurcation of black income distributions, with marked declines in the middle classes and proportionate increases among the affluent and poor. Unlike the Asian case, however, the expansion was greatest at the bottom of the distribution, so median incomes fell, poverty rates shot upward, and income inequality increased dramatically. This growing inequality was translated directly into geographically concentrated poverty because of the high degree of segregation faced by blacks. In large metropolitan areas of the Midwest and Northeast, poor blacks were increasingly isolated from other income classes by a pernicious interaction between segregation and rising poverty.

A similar geography of poverty affected the fortunes of Hispanics in the Northeast, where unusually pronounced downward shifts in the distributional structure of income were paired with high levels of Hispanic segregation. Incomes fell, poverty rates rose, inequality increased—and because these changes occurred in a segregated context, they generated a high degree of concentrated poverty. A similar, but less extreme, geography of poverty afflicted Hispanics in other large urban centers where segregation levels were relatively high, but in most areas of the country,

moderate levels of segregation precluded marked increases in the concentration of poverty, in spite of sharp downward shifts in the distribution of Hispanic income.

In developing these findings, we tested several hypotheses put forth by Wilson (1987) and others. First, we confirmed Wilson's conclusion that poverty concentration has increased in American cities. At the same time, though, we found the pattern of rising poverty concentration to require considerable qualification by region and group. If there is a geographically concentrated underclass that is isolated from the rest of society, it appears to consist primarily of blacks outside the West and Hispanics in the Northeast. Poor whites and poor Asians in nearly all metropolitan areas were more likely to share a neighborhood with middle-class or affluent families than with other poor people, as were Hispanics outside the Northeast and blacks in the West.

Second, we tested the hypothesis that recent increases in poverty concentration are explained by a growing reluctance of middle- and upper-class minorities, especially blacks, to live near the poor. Although the levels of black interclass segregation increased during the 1970s, we could find no evidence that these trends account for the rising concentration of black poverty. On the contrary, because of persisting segregation, middle- and upper-class blacks are less able to separate themselves from the poor than the privileged of other groups, and recent increases in black interclass segregation probably represent a movement toward parity with other groups. Among Hispanics and Asians, however, interclass segregation does appear to play some role, albeit minor, in promoting the concentration of urban poverty.

Finally, we tested the general proposition that class factors account for the unique position of blacks in U.S. urban society. In general, we found class-based explanations wanting. Class structure is important, but its role in generating concentrated black poverty is meaningful only in the context of segregation patterns that are determined largely on the basis of race. Racial segregation—not class segregation—is the crucial factor accounting for the concentration of black poverty. It is the interaction of race and class that brings about the spatial isolation of poor blacks in American cities.

In the final analysis, however, we have only linked patterns and trends in the concentration of poverty to two proximate causes—changes in the distributional structure of income and in patterns of residential segregation. The ultimate causes are more complex, relating to the functional transformation of American cities, the decline of manufacturing, the suburbanization of employment, the origins of discrimination of housing markets, and the persistence of racial prejudice in modern society. The identification, modeling, estimation, and measurement of these ultimate

causes of concentrated urban poverty must be among the most important topics for social research in the coming decade.

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