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CHANGES IN THE SEGREGATION OF WHITES FROM BLACKS DURING THE 1980s: SMALL STEPS TOWARD A MORE INTEGRATED SOCIETY*

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Residential segregation between blacks and whites persists in urban America. However, evidence from the 1990 Census suggests that peak segregation levels were reached in the past. We evaluate segregation patterns in 1990 and trends in segregation between 1980 and 1990 for the 232 U.S. metropolitan areas with substantial black populations. We review the historical forces that intensified segregation for much of the twentieth century, and identify key developments after 1960 that challenged institutionalized segregation. The results suggest that the modest declines in segregation observed during the 1970s continued through the 1980s. While segregation decreased in most metropolitan areas, the magnitude of these changes was uneven. Testing hypotheses developed from an ecological model, we find that the lowest segregation levels in 1990 and the largest percentage decreases in segregation scores between 1980 and 1990 occurred in young, southern and western metropolitan areas with significant recent housing construction. Because the black population continues to migrate to such areas, residential segregation between blacks and whites should decline further, but remain well above that for Hispanics or Asians.

Myrdal (1944:618–22) argued that racial residential segregation was a key factor accounting for the subordinate status of blacks. Segregation ensured that blacks would not attend school or share other community-based facilities with whites; it also permitted prejudiced white officials to provide deficient services to blacks without harming whites. Massey and Denton (1993) contend that an American apartheid system persists and that residential segregation is the seldom discussed missing link that explains poverty among blacks and the development of the black underclass. As Bobo (1989:307) put it, racial residential segregation is the "structural linchpin" of American race relations.

In the 1950s and 1960s, researchers reported that blacks were segregated from whites in cities throughout the nation; they described the process whereby neighborhoods changed from white to black occupancy within a few years (Duncan and Duncan 1957; Taeuber and Taeuber 1965). Later investigations sought to determine whether civil rights legislation, especially the Fair Housing Act of 1968, reduced segregation. Massey and Denton's (1987, 1988, 1989) studies of the 1970s found that, while some declines occurred in small metropolises, the fundamental pattern remained. Indeed, 16 metropolises for which segregation was extreme on every dimension were termed "hypersegregated" (Massey and Denton 1989).

This study extends previous work in two ways: Trends in residential segregation between blacks and whites for the 1980 to 1990 period are examined; and all metropolitan areas with substantial black populations are considered.

While many of the conditions that fostered segregation persist, there are reasons to expect considerable variation across metropolitan areas in the level of segregation and also reasons to anticipate further reductions in many areas. Changes in segregation should reflect reduced discrimination in housing, economic gains among blacks, and more tolerant attitudes among whites. Lessening segregation is a legacy of the civil rights movement. More-

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over, recent migration patterns show blacks moving to new and small urban areas that lack the history of housing discrimination typical of the classic "hypersegregated" areas (Frey 1993).

EXPLANATIONS OF SEGREGATION

Taeuber and Taeuber (1965:70–77) used human ecology as a framework to stress that a city's structural characteristics in conjunction with demographic forces explain levels and trends in segregation. Independent variables included growth rates of the black and white populations, suburbanization, new housing construction, and the occupational status of blacks. The ecological tradition recognizes that the history of a metropolitan area's migration, housing stock, and employment powerfully influence the racial and socioeconomic configuration of its population and its neighborhoods (Hawley 1971).

Although Massey and Denton's (1987, 1988, 1989) analyses of 59 metropolises included several ecological variables—identified as "metropolitan context" variables—their model stressed that spatial assimilation was an outcome of a minority group's economic mobility and acculturation. However, their results showed that upward economic mobility and acculturation did not lead to spatial assimilation for blacks as it did for Latinos and Asians.

Our analysis emphasizes the ecological perspective that is often used to study the distribution of racial and socioeconomic groups (Taeuber and Taeuber 1965; Schnore 1965; Frey and Speare 1988). This perspective is particularly appropriate because we seek to identify variations across the 232 metropolitan areas with substantial black populations in 1990—places that differ widely in historical development. We contend that the civil rights movement has greatly altered the effects of a metropolitan area's ecological characteristics on segregation since the 1940s and 1950s. To understand the new pattern of declining segregation, the forces that established the first ghettos, which emerged between 1900 and World War II, must be considered. These forces differ from those fostering segregation in the "Second Ghetto" (Hirsch 1983), i.e., the necklace of white suburbs surrounding predominantly black central cities that appeared after World War II.

We focus on changes in the residential segregation between blacks and whites in the 1980s, describing trends and then seeking to account for them. Because the national trend toward less segregation is the outcome of changes in many areas, we analyze intermetropolitan differences (i.e., why are blacks more segregated from whites in Detroit and Chicago than they are in Sacramento or Riverside?). This approach highlights the local conditions that ameliorate the pattern of American apartheid. Trends in the segregation of Asians and Latinos have been evaluated elsewhere (Frey and Farley 1993; Lobo 1993).

THE DEVELOPMENT OF THE FIRST GHETTOS

Residential segregation of blacks was less extreme at the turn of the century. In northern cities, some blacks shared neighborhoods with poor immigrants from Europe. Studies of Cleveland (Kusmer 1976:chap. 2), Chicago (Spear 1967:chap. 1), Detroit (Zunz 1982:chap. 6) and Philadelphia (DuBois [1899] 1967:frontispiece) reported that few blocks were predominantly black and that tiny cadres of highly educated blacks lived among whites in prosperous neighborhoods. In southern cities, clusters of blacks living with poor whites occurred, while some members of the small black elite also lived among whites (Gatewood 1990:65–66; Green 1967:127; Kellogg 1977; Rabinowitz 1976).

In the age of social Darwinism, whites desired to maintain physical distance from blacks, so a system of segregation had to be imposed, a system that had not been imposed on immigrants from Europe. Although the strategies accomplishing this varied by region and place, the outcome was similar. Southern cities passed ordinances specifying where blacks or whites could live. However, the NAACP successfully fought these ordinances, and in *Buchanan v. Warley* (1917), the Supreme Court ruled that these laws violated the rights of property owners (Johnson 1943:175–78; Vose 1959).

During World War I, competition for urban space emerged as blacks, for the first time, moved to northern and midwestern cities in large numbers. One strategy for keeping blacks out of white neighborhoods was to firebomb the homes of blacks who moved in. The Chicago Commission on Race Relations (1922:

122–35) described 58 firebombings on that city's South Side between 1917 and 1921.

The economic changes of World War I led to the growth of a black middle class in northern cities, and in the 1920s, some sought better homes in white neighborhoods. The most famous racial litigation of that decade involved the two highly publicized trials of Dr. Ossian Sweet, a black physician who moved into a white neighborhood on Detroit's east side—a move that led to violence and one fatality. The death resulted when Dr. Sweet's brother fired a gun to disperse the hostile crowd attacking the house. Clarence Darrow won an acquittal for Dr. Sweet, thereby establishing the right of blacks to defend their property. Rather than fostering integration, however, the trials revealed the hostilities blacks faced when they tried to leave the ghetto (Canot 1974:300–303; Capeci 1984:6–7; Levine 1976:163–65; Thomas 1992: 137–39).

A subtler way to prevent integration was to add a restrictive covenant to a deed specifying that the property could not be occupied by a black, Asian, or other undesirable minority for a specified period of time (e.g., 99 years). The legality of such covenants was upheld by the Supreme Court (*Corrigan v. Buckley* 1926). Although there is no systematic study of the prevalence of restrictive covenants, they were common in housing developments of the World War I era and were adopted in older neighborhoods when black in-migration appeared likely. President Truman's Committee on Civil Rights, for example, estimated that by the 1940s, 80 percent of the residential land in Chicago was covered by such covenants (Committee on Civil Rights 1947:68–69).

In the 1930s, the Federal Government became directly involved in preserving racially homogeneous neighborhoods. The Federal Housing Administration (FHA) developed the modern mortgage, which enabled middle- and low-income families to become homeowners. The FHA encouraged local authorities to draw color-coded maps indicating the credit-worthiness of neighborhoods. The condition of a property was to be taken into account, but, operating on the assumption that racial transitions lowered home values drastically, racially mixed neighborhoods, regardless of economic status or stability, and neighborhoods likely to undergo racial transition were coded red on these maps. These practices influenced lending long after World War II (Jackson 1985:185–86).

THE SECOND GHETTO: THE EMERGENCE OF SEGREGATED SUBURBS

Numerous opportunities to reduce segregation arose after World War II. Few homes were constructed during the Depression or war years, but between 1945 and 1980, 29 million new homes and apartments were added to the national housing stock, which totaled 37 million units in 1940 (U.S. Bureau of the Census 1943:table 2; 1975:table N-156). In this period, the nation invaded and conquered a "crabgrass frontier" (Jackson 1985). The pattern differed by region as relatively more new housing was built in the South and West. If blacks had been allowed to move into these new homes, the nation's racial history would have been quite different. And there was reason to think this might happen. The NAACP and its allies, after much litigation, convinced the Supreme Court to rule that neither state nor Federal courts could enforce restrictive covenants (*Shelley v. Kraemer* 1948).

However, residential segregation persisted so thoroughly that, following the riots of the 1960s, the Kerner Commission warned that the nation was divided "into two societies; one largely Negro and poor, located in the central cities; the other, predominantly white and affluent, located in the suburbs" (National Advisory Commission on Civil Disorders 1968:22)

Four practices exacerbated segregation:

(1) Mortgage lending policies were discriminatory. New construction was encouraged by several federal agencies: The FHA and the Veterans' Administration insured mortgages and Federal National Mortgage Association (Fannie Mae) created an orderly secondary market for them, thereby increasing the flow of capital to construction. Redlining was strongly endorsed by the Federal agencies, and the ethical standards of the National Association of Real Estate Boards prohibited its agents from introducing minorities into white neighborhoods (McEntire 1960:245).

(2) Blacks who sought housing in white areas faced intimidation and violence similar to that occurring during World War I. Hirsch (1983) described many instances of whites stoning the houses and cars of blacks who dared to pioneer

in Chicago's white neighborhoods or the adjoining suburb of Cicero. Similar attacks occurred in other cities, but violence abated when whites realized that they could move to new homes—bought with government-backed loans—in the suburbs (Dodson 1960:107; Thompson, Lewis, and McEntire 1960:63).

(3) After World War II, suburbs developed strategies for keeping blacks out. In the Northeast and Midwest, central cities were surrounded by many individual municipalities, each with its own zoning laws, school system, and police. The techniques for excluding blacks have been documented most completely for Dearborn, Michigan (Good 1989) and Parma, Ohio (*U.S. v. City of Parma* 1981). Both cities established reputations for strong hostility toward blacks. Real estate agents dealt only with whites. In Dearborn, the few blacks who moved into a white neighborhood were visited by the police and encouraged to leave. Zoning ordinances were changed and variances granted or denied to prevent construction that might be open to blacks. Public schools hired white teachers, administrators, and coaches. As a result, in most midwestern and eastern metropolitan areas, white families who wished to leave a racially changing city could choose from a variety of suburbs knowing their neighbors would be white and that their children would attend segregated schools.

(4) Federally sponsored public housing encouraged segregation in many cities. As conceived in the 1930s, public housing was to provide temporary shelter for poor families as they moved into the middle class. By the early 1960s, however, public housing had become the home of last resort for problem families, particularly families headed by impoverished black women with children (Friedman 1967). Rainwater (1970:chap. 1) described public housing as the racially segregated dumping ground for such families. Federal spending for urban renewal razed old homes occupied by blacks, especially in eastern and midwestern cities. Instead of dispersing this displaced population to the suburbs, public housing was constructed, further concentrating blacks in black neighborhoods (Adams, Bartelt, Elesh, Goldstein, Kleniewski, and Yancey 1991:109–11; Bickford and Massey 1991; Hirsch 1983: 223–27; Lemann 1991:74; Squires, Bennett, McCourt, and Nyden 1987:103). These four factors—Federal financing policies, the threat of intimidation or violence, suburban opposition to blacks, and public housing—affected areas differently, but each factor maintained segregation. At this time, most cities had few Latinos or Asians.

CHALLENGING RACIAL RESIDENTIAL SEGREGATION, 1960 TO 1990

The 1960s mark a crucial turning point in race relations. Old policies were challenged and replaced by new policies that eventually produced modest declines in segregation. The local impact of national changes depended on the ecological characteristics of specific metropolitan areas.

Changes in Federal Housing Policies

Throughout this century, civil rights organizations fought local ordinances and Federal policies that encouraged or mandated segregation. In the 1960 presidential campaign, Kennedy vowed to end racial discrimination in housing with the "stroke of a pen," but civil rights groups pressured him for almost two years before he issued a timid Executive Order banning discrimination, but exempting all existing housing and all new housing except that built or directly financed by the Federal Government (Branch 1988:679). The Fair Housing Law of 1968 was the major achievement of the civil right movement, but its enactment depended on the murder of Rev. Dr. Martin Luther King. This legislation was upheld and strengthened by Federal court decisions outlawing segregation in all aspects of the sale or rental of housing (*Jones v. Alfred H. Mayer* 1968; *U.S. v. Mitchell* 1971; *Zuch v. Hussey* 1975).

Although enforcement by Federal agencies was often lax (Lamb 1984:172), the open housing movement was bolstered by subsequent developments in residential finance. By the 1970s, institutionalized patterns of discrimination in lending were first documented and challenged. Congress passed the Home Mortgage Disclosure Act (HMDA), which proved to be a potent "freedom of information" tool since it required federally chartered fiscal institutions to report exactly where they made or denied loans. Later, the Act's value to the open housing movement was increased by requiring information about the income and race of those obtaining or denied mortgages (Fishbein 1992;

Carr and Megbolugbe 1993: 3–18). Studies in Atlanta (Dedman 1988), Detroit (Blossom, Everett, and Gallagher 1988), and other cities demonstrated that banks loaned more frequently in white neighborhoods than in economically similar black neighborhoods. (For other studies of lending discrimination see Avery and Buynak 1981; Bradbury, Case, and Dunham 1989; Feins and Bratt 1983; Leahy 1985; Pol, Guy, and Bush 1982; Shlay 1988; Taggert and Smith 1981; Wienk 1992.)

In 1977, urban development groups encouraged Congress to pass the Community Reinvestment Act (CRA), which required federally chartered banks and savings institutions to meet the credit needs of the *entire* communities they served, including low-income areas. Local groups challenged bank mergers in the 1980s, contending they did not satisfy their CRA obligations. In Atlanta, studies linking HMDA and CRA information led to the creation of a pool of $65 million for loans to low- and moderate-income inner city neighborhoods (Robinson 1992:104), presumably helping to stabilize neighborhoods that might go through the usual racial transition.

The open housing movement kept the issue of discrimination before the public (Saltman 1978, 1990). In 1977, the Department of Housing and Urban Development (HUD) carried out the first national audit of discrimination in the marketing of housing (Wienk, Reid, Simonson, and Eggers 1979). Twelve years later, a similar HUD audit concluded "blacks and Hispanics experience systematic discrimination in terms and conditions, financing assistance, and general sales effort in about half of their encounters with real estate agents" (Turner 1992; Turner, Struyk, and Yinger 1991:43). The Federal Reserve Board investigated discrimination in lending using the newly augmented HMDA data. A Boston study found that 10 percent of the applications for conventional mortgages by whites were denied, whereas blacks and Latinos with comparable financial and demographic characteristics had a rejection rate of 18 percent (Munnell, Browne, McEneaney, and Tootell 1992:table 8).

A Supreme Court decision (*Hills v. Gautreaux* 1976) established the principle that public housing could not encourage or perpetuate segregation, but this was something of a hollow victory for the open housing movement. Although Federal judges ordered scattered site public housing, few units were built because of the opposition of local residents and the lack of Federal funds (Chandler 1992). In some areas, voucher plans, rent supplements, and Section 8 grants assisted low-income households. Although the evidence is mixed, such policies apparently encouraged some residential integration, as did the Gautreaux demonstration program in Chicago (Davis 1993; Gray and Tursky 1986; Lief and Goering 1987:246; Rosenbaum and Popkin 1991; Rosenbaum 1992; Rosenbaum, Popkin, Kaufman, and Rubin 1991; Stucker 1986:259).

Changes in the Racial Attitudes of Whites

Because segregation resulted from the unwillingness of whites to remain when blacks moved into their neighborhoods and from the reluctance of whites to move into areas that had black residents, integration presumably depended on a liberalization of white attitudes. In the early national samples, whites strongly endorsed the *principle* of residential segregation. As part of the government's domestic intelligence effort at the outset of World War II, the National Opinion Research Center (NORC) asked a sample of 3,600: "Do you think there should be separate sections in towns and cities for Negroes to live in?" Eighty-four percent agreed (National Opinion Research Center 1942:question 22). Since the early 1960s, NORC has asked white respondents whether they agree or disagree with the statement, "White people have a right to keep blacks out of their neighborhoods if they want to, and blacks should respect that right." Just before the Civil Rights Act became law in 1964, 60 percent of white respondents agreed; by 1990, only 20 percent of white respondents agreed (National Opinion Research Center 1990:item 127B; Schuman, Steeh, and Bobo 1985:table 3).

Endorsing a principle is easier than accepting black neighbors. Changes in the attitudes of whites involve more than principles. In 1958, a Gallup poll found that 44 percent of a national sample of whites would leave if a black moved next door. When the question was last asked in 1978, only 14 percent said a black neighbor would trigger their flight (Bobo, Schuman, and Steeh 1986; Schuman, Steeh, and Bobo 1985:table 3.3).

In 1990, Detroit was the most segregated of the 47 metropolises with populations of 1 mil-

lion or more. In 1976 and 1992, the Detroit Area Study investigated whites' tolerance for black neighbors (Farley, Schuman, Bianchi, Colasanto, and Hatchett 1978; Farley, Steeh, Jackson, Krysan, and Reeves 1994). White respondents were interviewed in their homes and shown cards depicting neighborhoods with varying racial compositions. They were asked to imagine that they lived in an all-white neighborhood as pictured on the first card. Then they were asked to imagine that a black family moved in so that their neighborhood came to resemble a second card showing 14 white households and 1 black household. The respondent was asked how comfortable he or she would be in that neighborhood. If they said "comfortable," they were shown a third card picturing 12 white households and 3 black households. If they were comfortable with this racial composition, they were shown a fourth and possibly a fifth card with relatively more blacks. The final card portrayed a majority black area. If the white respondent claimed to be "uncomfortable" with a racial mix, the respondent was asked whether he or she would try to move away from that neighborhood.

Figure 1 presents the results of their studies for 1976 and 1992 (Farley et al. 1978; Farley et al. 1994). In both years, as the percentage black increased, the percentage of whites who would feel uncomfortable increased. However, white respondents' tolerance of black neighbors increased between 1976 and 1992. The situation of one black and 14 whites made 24 percent of whites "uncomfortable" in 1976 compared to 16 percent in 1992. For the diagram with three black households, the percent "uncomfortable" fell from 42 to 30.

Few whites said they would try to move away from a neighborhood with one black household—7 percent in 1976 and 4 percent in 1992. When 5 of the 15 households were occupied by blacks, a substantial exodus provoking resegregation could occur—29 percent of white respondents in 1992 said they would try to leave. However, 41 percent said they would leave such a neighborhood in 1976.

Are whites willing to move into neighborhoods already occupied by blacks? The answer depends on the number of blacks. In 1992, 87 percent of white respondents said they would move into a neighborhood with 1 black and 14 white households if they found a nice house they could afford; almost 70 percent would move into a neighborhood with 3 black households and 12 white. However, whites' tolerance for black neighbors had a limit—when the number of black households increased to 5 out of 15 or 8 out of 15, the neighborhood was not attractive to a majority of whites in both the 1976 and 1992 studies.

Changes in whites' attitudes during and after World War II may have facilitated passage of civil rights laws in the 1960s. These statutes—along with Supreme Court rulings upholding them—may have further liberalized attitudes. However, changes in attitudes do not necessarily mean changes in behavior in the housing market. Nevertheless, by 1990, whites almost universally supported the *principle* of equal opportunities in the housing market and a majority of whites reported a willingness to live in integrated situations.

New Housing Construction

In the 1940s, new construction in a city was associated with increasing segregation because it enabled whites to distance themselves from blacks (Taeuber and Taeuber 1965:table 16), but construction after 1968 reduced segregation. We argue that the Fair Housing Act had a greater effect in newly constructed suburban developments and apartment complexes than in established neighborhoods. Many old communities are known as places where only blacks live or for their hostility to blacks (e.g., Dearborn and Parma). Areas of new construction generally lack such reputations.

Open housing advocates often target such developments for testing and, since 1972, HUD regulations have required that developers using government-backed loans affirmatively market their properties, meaning they are sometimes advertised in the black-oriented media (Lief and Goering 1987:238). The 1970s and 1980s were decades of substantial new construction—an average of 1.8 million units were started annually in the 1970s and 1.5 million per year in the 1980s (U.S. Bureau of the Census 1991b:table 1269).

Growth of the Black Middle Class

Theories of residential assimilation stress that a group's economic success hastens its residential integration. Duncan and Duncan (1957: 240–45) found that relatively more prosperous

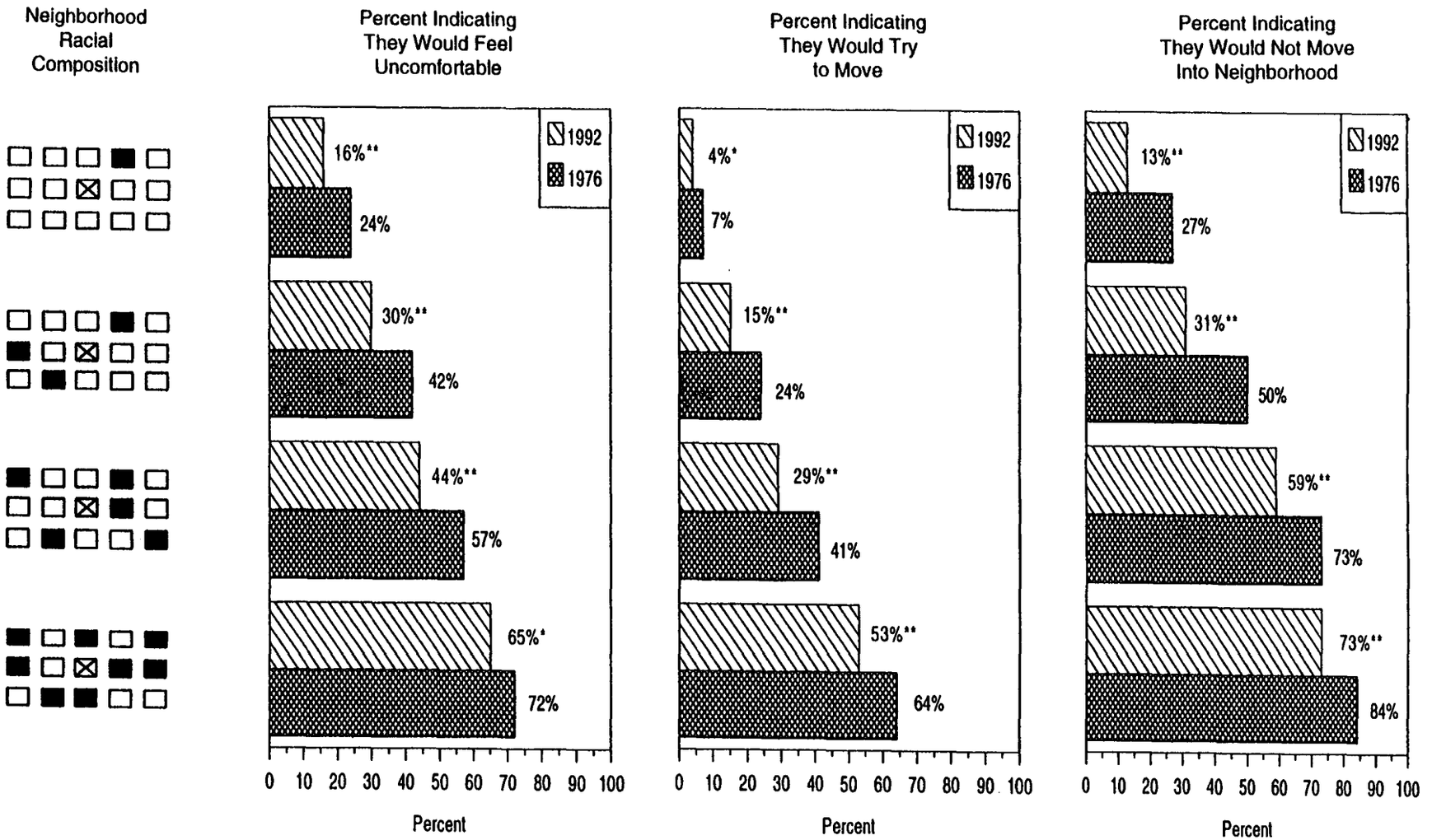


Figure 1. Attractiveness of Neighborhoods of Varying Racial Compostions: White Respondents, Detroit Area, 1976 and 1992

* $p < .05$ ** $p < .01$ (two-tailed tests)

blacks were the first to move into white neighborhoods; Taeuber and Taeuber (1965:76) showed that the greater the increase in the occupational status of blacks in a city in the 1950s, the smaller the increase in segregation.

Between 1940 and the early 1970s, the black middle class grew more rapidly than the white middle class. Using an income of at least twice the poverty line as the criterion for middle-class status, the percent of black households rose from a miniscule 1 percent in 1940 to 39 percent in 1970. Among white households, the percent middle class increased from 12 percent to 70 percent. The growth of the middle class slowed after 1970: by 1990, 47 percent of black households and 74 percent of white households had incomes at least double the poverty line (U.S. Bureau of the Census 1972, 1982, 1993).

Recently, as is true for whites, the income distribution of blacks has become more polarized. That is, relatively more households are located at both high- and low-income extremes. In 1968, 5 percent of black households had incomes exceeding $50,000 (constant 1990 dollars) compared to 12.5 percent in 1990. Among white households, the shift was from 15 percent with incomes above $50,000 in 1968 to 28 percent in 1990 (U.S. Bureau of the Census 1991a:table B-10). Thus, the percentage of blacks with economic status qualifying them for expensive housing and, presumably, with characteristics mitigating white flight, increased during the 1980s.

These four developments—changes in Federal housing policies, liberalization of white attitudes toward blacks, growth of the black middle class, and substantial new housing construction—set the stage for reducing segregation. However, the effects of these factors depended on the characteristics of a metropolitan area.

RACIAL SEGREGATION IN THE 1980S

Conflicting conclusions have been drawn about the course of segregation during the 1970s. Focusing on the largest metropolises, Massey and Denton (1993:83) observed that "the nation's largest black communities remained as segregated as ever in 1980." However, Jakubs (1986) found that segregation declined in the majority of all 318 metropolitan areas, especially in young metropolitan areas.

To avoid ambiguity, we describe segregation levels at the beginning and end of the 1980–1990 decade using all metropolitan areas with substantial black populations. We find a pervasive pattern of modest declines—the average index of dissimilarity fell from 69 in 1980 to 65 in 1990.[1] Segregation decreased in 194 metropolitan areas and in 85 of these areas declined at least 5 points. In 1980, 14 metropolitan areas had indexes exceeding 85, whereas ten years later only four metropolitan areas had indexes that high. In 1980, 29 metropolitan areas could have been classified as moderately segregated if that means a score of less than 55. The number of moderately segregated places more than doubled to 68 in 1990. (For other studies of segregation in 1990, see Denton 1992; Harrison and Weinberg 1992; Massey and Denton 1993:table 8.1; Weinberg and Harrison 1992.)

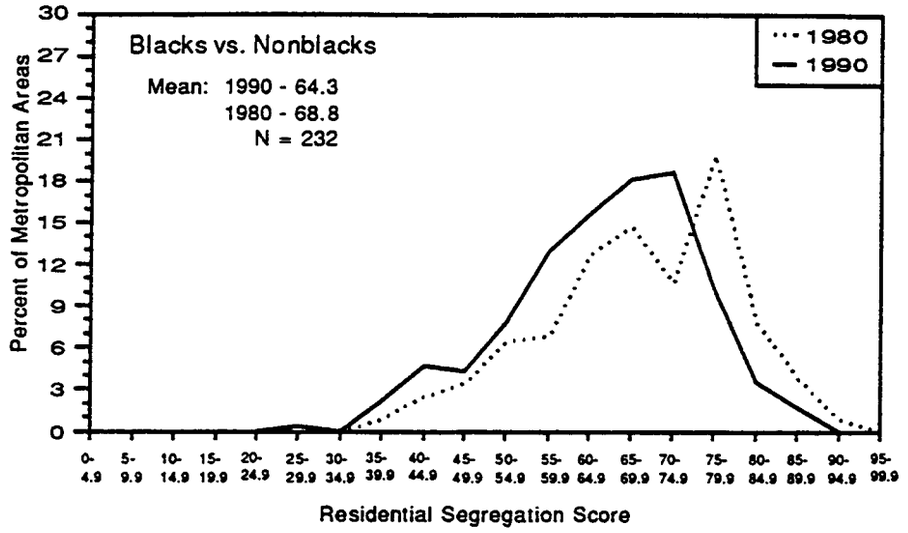
The top panel of Figure 2 presents the frequency distribution of segregation scores—in-

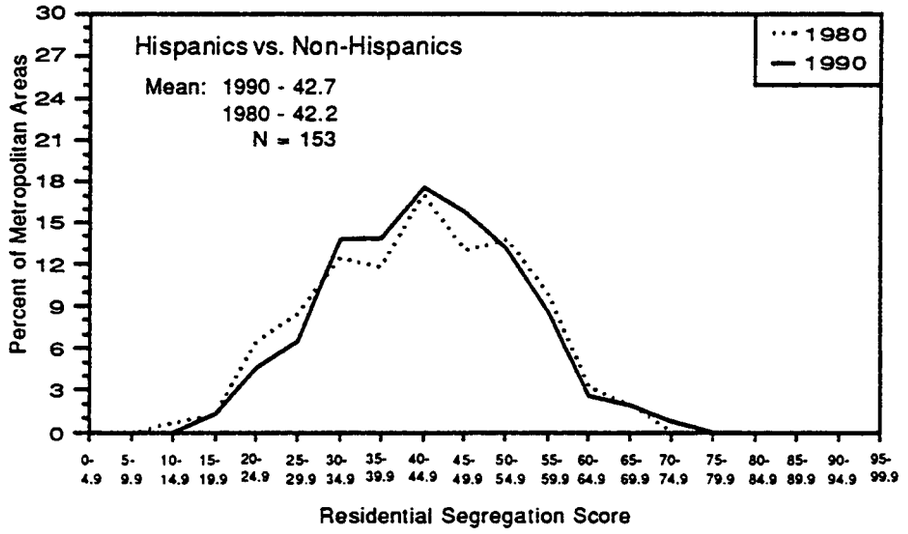
[1] The index of dissimilarity is not influenced by the relative sizes of the black population or white population or the presence of other races (Zoloth 1976). If all block groups in a metropolitan area are exclusively white or exclusively black, the index will equal its maximum value of 100. If individuals were randomly assigned to blocks, the index would approach its minimum of 0. The numerical value indicates the percentage of blacks (or whites) who would have to be shifted from one block group to another to produce an index of 0 (Duncan and Duncan 1955; Jakubs 1979; Massey and Denton 1988; White 1986).

From all metropolitan areas (MSAs, NECMAs in New England, and PMSAs elsewhere) defined for 1990, we analyzed 232 with 20,000 or more blacks or in which blacks made up at least 3 percent of the population in 1990. Data were obtained from the STF-1A file for the 1990 and 1980 censuses.

Block groups, which were the unit of analysis, averaged 903 residents in 1980 and 564 in 1990. Indexes based on block groups give a more sensitive picture of segregation—and higher scores—than do indexes based on census tracts, which average 5,000 residents. Geographically constant boundaries for metropolises were defined using the counties or parishes employed in the 1990 enumeration.

Data were analyzed for persons who identified themselves as white or black on the race question in the census. About 6 percent of whites and 3 percent of blacks claimed Hispanic heritage on the distinct question about Spanish origin (U.S. Bureau of the Census 1993).





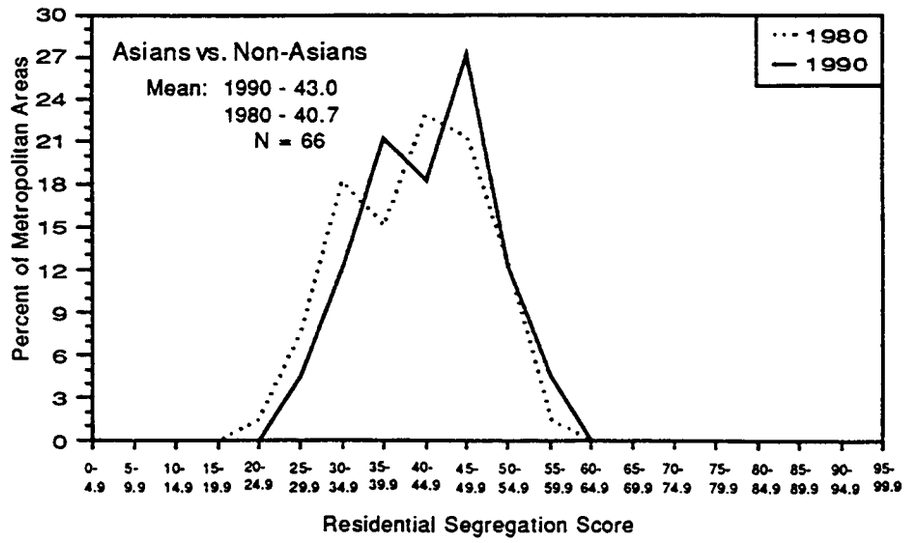


Figure 2. Frequency by Residential Segregation Score: U.S. Metropolitan Areas, 1980–1990

dexes of dissimilarity—for blacks versus nonblacks in 1980 and 1990 for 232 metropolitan areas.[2] Declines during the 1980s were pervasive. Although much inter-metropolitan variation in segregation is evident, segregation of blacks remains much greater than that of the two other major minorities, Hispanics and Asians (second and third panels of Figure 2). The average segregation score in 1990 for blacks (64.3) was 20 points above the average scores for Hispanics or Asians.

Table 1 lists the 15 most and least segregated metropolitan areas in 1980 and 1990. Of the 15 most segregated areas in 1990, 11 are old midwestern industrial centers, and two are retirement communities in Florida. A decade earlier, the most segregated areas included midwestern areas, but also seven retirement centers in Florida. Five of the seven Florida areas disappeared from the list as their populations grew and less segregated housing was built.

The list of least segregated metropolitan areas is dominated by metropolitan areas whose economic bases involved the Armed Forces: Anchorage, AK, Clarksville, TN, Fayetteville, NC, Jacksonville, NC, and Lawton, OK appear in both years, while Cheyenne, WY, Fort Walton Beach, FL, Honolulu, HI, and Killeen, TX are on the 1990 list. The university towns of Lawrence, KS and Charlottesville, VA also have low levels of segregation in 1990 while Columbia, MO is among the least segregated areas a decade earlier. Some large metropolitan areas have low segregation—Honolulu, HI and Tucson, AZ with populations over 500,000, San José, CA with 1.5 million population, and Anaheim, CA with 2.5 million residents appear among the least segregated areas.

Whether blacks and whites live in racially mixed neighborhoods is influenced by ecological, economic, and social factors, e.g., the history of race relations in the area, the rates of both geographic and social mobility of blacks and whites, the age of the housing stock, real estate marketing practices, the availability of credit, racial attitudes, and the economic status of each race. We test hypotheses about what accounts for differences among metropolitan areas by analyzing those characteristics of metropolitan areas strongly associated with residential segregation.

Age of Metropolitan Area

The age of a city or metropolitan area is positively related to levels of racial and socioeconomic segregation (Frey and Speare 1988; Schnore 1965). As Massey and Denton (1987) observed, "Cities built up before the Second World War have ecological structures that are more conducive to segregation, with densely settled cores and thickly packed working-class neighborhoods . . ." (p. 818).

Age is measured as the decade in which the largest city in a metropolitan area first reached 50,000 population. For Baltimore, MD, New Orleans, LA, and New York City this occurred decades before the Civil War, while Atlanta, GA, Denver, CO, and Los Angeles, CA satisfied this criterion toward the end of the last century. At the other extreme, Anaheim and Riverside, CA and Ft. Lauderdale, FL reached this status after World War II. Other areas—Daytona Beach, FL and Anchorage, AK—became metropolitan after Congress passed the Fair Housing Act.[3]

Figure 3 shows that old metropolises are most segregated, and differences by age are substantial. In 1990, the average segregation score is 76 in metropolitan areas whose central cities reached 50,000 before 1890, whereas in the newest metropolitan areas, the average score is 58. The percent decrease in segregation scores is greatest in the youngest metropolitan areas, but declines were certainly not restricted to such places—segregation decreased in old metropolitan areas as well.

Functional Specialization

Metropolises differ in economic bases, which can influence segregation in three ways. First, the types of housing may be directly linked to

[2] These indexes which compare the residential distribution of one group to that of another group were computed from data for block groups. They were calculated for all metropolitan areas in which the minority group numbered at least 20,000 in 1990 or made up at least 3 percent of the population in 1990. Note that all other indexes of segregation in this paper compare the residential distributions of those defining themselves as white or black by race.

[3] Thirty-five metropolitan areas defined in 1990 had central cities that had not reached 50,000; three metropolitan areas—Nassau-Suffolk Counties and Orange County, NY and Monmouth-Ocean, NJ—had no central city.

Table 1. Indexes of Dissimilarity for the 15 Most Segregated and Least Segregated Metropolitan Areas: United States, 1980 and 1990

1980		1990	
Metropolitan Area	Index of Dissimilarity	Metropolitan Area	Index of Dissimilarity
Most Segregated		*Most Segregated*	
Bradenton, FL	91	Gary, IN	91
Chicago, IL	91	Detroit, MI	89
Gary, IN	90	Chicago, IL	87
Sarasota, FL	90	Cleveland, OH	86
Cleveland, OH	89	Buffalo, NY	84
Detroit, MI	89	Flint, MI	84
Ft. Myers, FL	89	Milwaukee, WI	84
Flint, MI	87	Saginaw, MI	84
Ft. Pierce, FL	87	Newark, NJ	83
West Palm Beach, FL	87	Philadelphia, PA	82
Ft. Lauderdale, FL	86	St. Louis, MO	81
Naples, FL	86	Ft. Myers, FL	81
Saginaw, MI	86	Sarasota, FL	80
Milwaukee, WI	85	Indianapolis, IN	80
St. Louis, MO	85	Cincinnati, OH	80
Average	88	Average	84
Least Segregated		*Least Segregated*	
El Paso, TX	49	Charlottesville, VA	45
Columbia, MO	49	Danville, VA	45
Victoria, TX	49	Killeen, TX	45
Charlottesville, VA	48	San José, CA	45
Clarksville, TN	48	Tucson, AZ	45
Colorado Springs, CO	48	Honolulu, HI	44
San José, CA	48	Anaheim, CA	43
Anaheim, CA	47	Cheyenne, WY	43
Honolulu, HI	46	Ft. Walton Beach, FL	43
Fayetteville, NC	43	Clarksville, TN	42
Lawton, OK	43	Lawrence, KS	41
Anchorage, AL	42	Fayetteville, NC	41
Danville, VA	41	Anchorage, AL	38
Lawrence, KS	38	Lawton, OK	37
Jacksonville, NC	36	Jacksonville, NC	31
Average	45	Average	42

Note: These indexes are based on block group data and pertain to persons reporting white or black as their race.

functional specialization (e.g., university towns or cities around a military post differ from manufacturing centers). Second, the social characteristics and educational attainment of the population reflect a community's economic base. Finally, the impact of open housing legislation may differ among areas because of differences in their population and housing stock.

The 232 metropolises were classified according to the following criteria to determine their functional specialization:

Retirement communities. Percent of population age 65 and over as estimated by the Bureau of the Census in 1985. Six metropolitan areas were deleted from this category because their elderly were not retirees moving in.

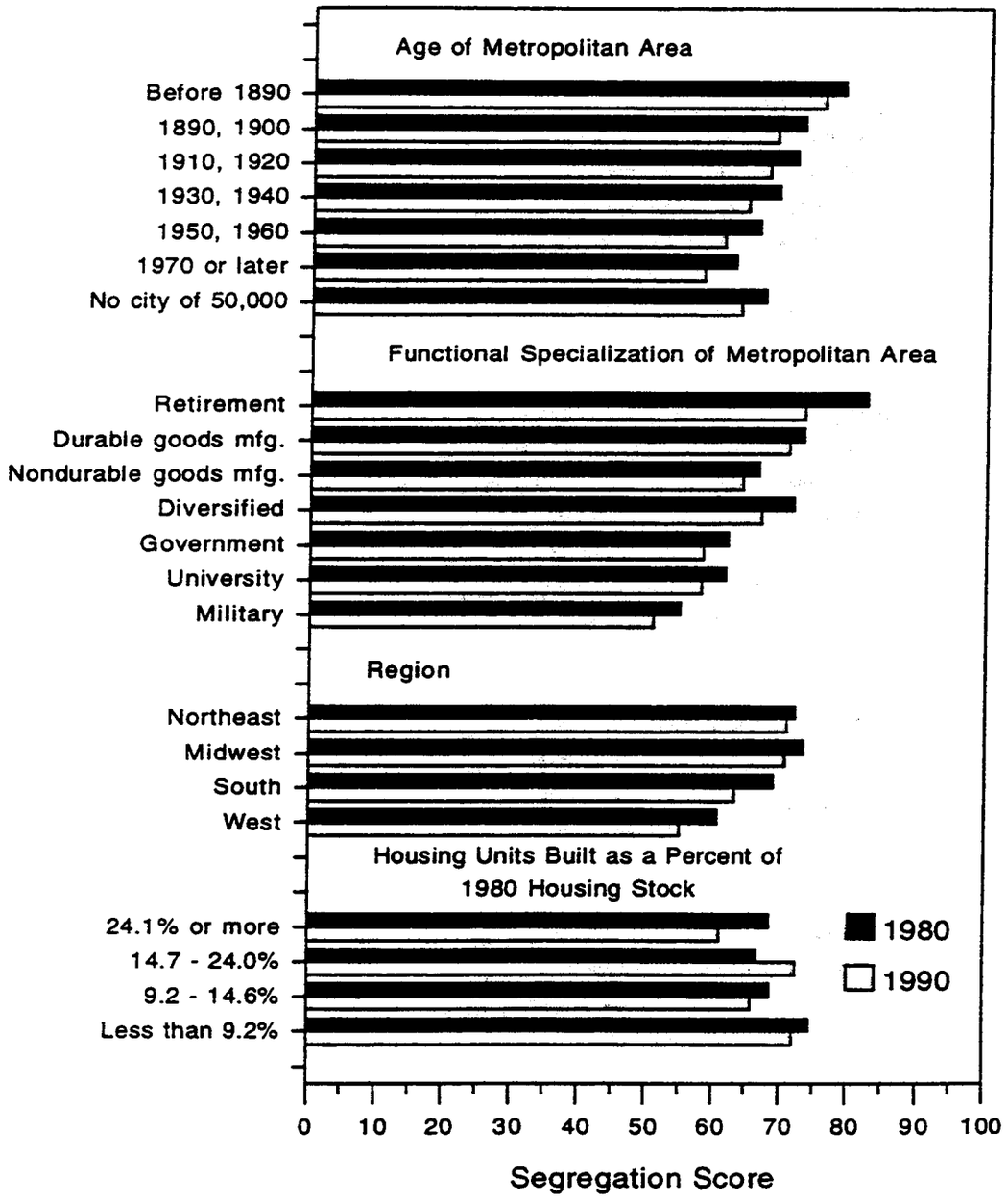


Figure 3. Average Residential Segregation Scores by Selected Characteristics: U.S. Metropolitan Areas, 1980–1990

Durable goods communities. Percent of work force employed in durable goods manufacturing industries in 1980.

Nondurable goods communities. Percent of work force employed in nondurable goods manufacturing industries in 1980.

Government communities. Ratio of employment by local, state, and Federal government in 1988 to total population in 1990.

University communities. Percent of population aged 18 to 24 enrolled in college in 1980.

Military communities. Percent of total labor force in the Armed Forces in 1990.

A metropolitan area was classified into one of these functional types if it was one or more standard deviations above the national average for all metropolitan areas on any of these measures. Twenty-three metropolitan areas had two specializations, usually government combined with military or university. Diversified metropolitan areas were not one standard deviation above average on any of the measures. Figure

3 presents average segregation scores by functional specialization. Note that some metropolitan areas appear in two categories.

Residential segregation is relatively high in retirement communities. Few retired blacks possess the requisite savings to move into such areas, so the elderly populations in these communities are largely white. Fitzgerald's (1981) study of a Florida retirement community found that residents coming from northern or midwestern cities with histories of racial strife looked forward to living in racially homogeneous areas.

Durable goods communities also have relatively high segregation, on average. Of the 44 durable goods communities, 41 are located in the Midwest or Northeast. Cleveland, OH, Detroit, MI, Flint, MI, Gary, IN, and Saginaw, MI have been among the most segregated metropolises since the need for labor during World War I encouraged blacks to leave the South (Taeuber and Taeuber 1965:table 4). Residential segregation was somewhat lower, on average, in nondurable goods communities. Many nondurable goods communities specialize in textiles, chemicals, or food products, and 16 of the 26 communities are in the South.

The populations of government, university and military communities differ—especially in educational attainment —from those of metropolitan areas that have a manufacturing base. Many residents of university and military communities spend only a few years there, so their attachments to their neighborhoods may be ephemeral. Persons living in dormitories, barracks, or in homes on a military base may have been assigned their places of residence.

Segregation was moderate in government communities. As indicated by segregation scores, neighborhoods in Washington, DC were more mixed on average than those in most large manufacturing communities. Fifteen of the 29 government communities are state capitals. By the mid-1980s, 35 states had fair housing laws similar to Federal laws (Lamb 1992:10). Persons enforcing these laws often live in state capitals, so there may be a heightened awareness of open housing requirements.

Segregation in university communities was similar to that in government communities. University communities in the South, including Athens, GA, Charlottesville, VA, Gainesville, FL, and Lubbock, TX have unusually low scores. In the Midwest, among the least segregated are Ann Arbor, MI, Champaign-Urbana, IL, Columbia, MO, and Lawrence, KS. Because racial attitudes are linked to education, whites living in these communities should be relatively tolerant of black neighbors. Structural factors also play a role. Wineberg's (1983) analysis of Gainesville, FL showed how racial changes at a university can overturn entrenched segregation. The University of Florida attracted black students, many of whom chose to live off-campus in apartments that previously were not available to blacks. The school also recruited black professionals who opted to live in white neighborhoods commensurate with their status and prestige.

Military communities have the lowest levels of segregation. In some communities, blacks are assigned to integrated quarters on base or live in apartment complexes that have demonstrated to the local commander that they do not discriminate. Several large metropolitan areas whose economies depend on the military—Norfolk, VA with 1.4 million people and San Diego, CA with 3.5 million—have relatively low levels of segregation.

Region

Region is used as an ecological variable because of its link to the structure of local governments. In the nineteenth century, northeastern and midwestern states granted town and city officials substantial independent authority. Suburban communities sprang up early in the twentieth century. After World War II, more suburbs were incorporated. They developed their own land use regulations, zoning ordinances, police forces, and public schools. When whites began leaving central cities in the 1950s—a migration hastened by the presence of blacks in the cities (Frey 1979, 1984)—they found suburban communities that either had histories of animosity toward blacks or that had developed strategies indicating that their neighborhoods, parks, and schools were for whites only (Newman 1993:123–24).

At the end of the nineteenth century, state legislatures in the South reorganized local governments because of a fear that black voters would join poor whites in a populist movement. Local authority was often vested in county-wide governments, subject to state control. As a result, most southern cities are not surrounded by numerous suburbs and de-

cisions about zoning or policing are made at a county level. School districts in most southern states coincide with county lines, which encouraged residential integration in those districts under Federal court desegregation orders. Southern whites usually do not have the option of moving to a white suburban community with an exclusively white school system. Southern states also had permissive annexation laws. To raise tax revenue from the trend toward suburbanization, administrators in southern cities annexed fringe areas in the 1950s and 1960s, an option all but impossible in the Northeast or Midwest. Local government in the old cities along the West Coast—Los Angeles, CA, Portland, OR, and San Francisco, CA—resembles that of midwestern cities, whereas newer western cities like Phoenix, AZ and San Bernadino, CA were able to annex outlying areas, a factor linked to their low segregation.

Figure 3 shows average segregation scores of metropolitan areas in 1980 and 1990 by region. In 1980, midwestern metropolitan areas averaged 13 points higher than areas in the least segregated region—the West. Segregation declined, on average, in all regions, but the decline was greater in the South and West where 1980 levels were already lower. The gap between midwestern areas (score of 71 in 1990) and western areas (score of 55 in 1990) increased to an average of 16 points. Only four of the 25 western metropolitan areas—Denver, CO, Los Angeles, CA, Oakland, CA, and Portland, OR—have scores above 65, whereas 48 of 61 midwestern metropolitan areas have such extensive segregation.

New Construction

Construction of new housing affects segregation because discrimination was illegal in homes and apartments built after 1969. Metropolitan areas whose housing stock was constructed recently should be less segregated than areas whose housing stock was built before the Depression or shortly after World War II.

To index this dimension, we calculated housing units built 1980 to 1989 as a percent of the housing stock in 1980. Many metropolitan areas had substantial shares of their housing stock erected during the 1980s. For example, in Orlando, FL, 66 percent of 1990 housing units were erected during the 1980s; in Phoenix, AZ, 54 percent; and, in Atlanta, GA, 48 percent. In many southern and west coast metropolitan areas, the majority of housing units were built after the Fair Housing Law banned discrimination. At the other extreme were stagnant or declining metropolitan areas like Buffalo, NY, Pittsburgh, PA, and New York City where homes and apartments built during the 1980s made up less than 6 percent of the stock found there at the start of the decade.

Figure 3 shows average segregation indexes for metropolitan areas classified by age of their housing stock. Metropolitan areas with relatively many homes and apartments built between 1980 and 1989 were less segregated than those in which new construction was rare. Housing units built during the 1980s exceeded 24 percent of the 1980 units in 58 metropolitan areas, and only six of these areas—all Florida retirement communities—had segregation scores exceeding 75. By contrast, 21 of the 59 metropolitan areas in which new construction accounted for less than 9 percent of the 1980 housing stock had segregation scores above 75, and all but 2 of the 21 are in the Northeast or Midwest.

Two additional ecological variables and one indicator of the economic standing of blacks are relevant to explaining differential segregation in 1990. Consistent with previous studies (Massey and Denton 1987:table 7), in 1990 large metropolitan areas were more segregated than small metropolitan areas. Segregation was also relatively low in areas with large Hispanic and Asian populations relative to blacks (Frey and Farley 1993). Areas with relatively many Hispanics and Asians are in regions that were not traditional destinations for blacks, so racial antagonism is less intense than it is in areas with traditional black concentrations. Also, the large Hispanic populations in many of these areas may serve as a "buffer" between residences of whites and blacks, thus lowering segregation (Santiago 1989).

Finally, mean black household income as a percent of mean white household income indexes the economic status of blacks. This percent had a modest relationship to segregation scores in both 1980 and 1990—the higher the percent, the lower the segregation score.

The impact of ecological and economic factors on segregation scores in 1990 was determined in a multivariate analysis. The dependent variable is the segregation score for blacks

versus whites. The ecological model hypothesizes that historical factors (e.g., region, functional specialization, and age of the metropolitan area) and recent developments (e.g., new construction, nonblacks as a percent of the minority population, and black income relative to white income) influence whether neighborhoods in a metropolitan area are thoroughly or moderately segregated. Table 2 presents the results of the analysis.

Metropolitan areas in the Northeast and Midwest were significantly more segregated in 1990 than those in the South or West, net of the other variables. The net effect of region is probably rooted in the history of local governments, specifically the power of independent suburbs in the Midwest and Northeast.

The functional specialization of a metropolitan area had a strong net effect on segregation. Retirement communities were significantly more segregated—segregation scores, on average, were 12 points higher than those in equivalent metropolitan areas with a diversified economic base. University communities and military communities had significantly lower segregation—segregation scores were about 8 points lower than those of comparable diversified areas—probably because of the unique housing stock in such places, the influence of military commanders on the local housing market, and the more liberal attitudes of residents.

Metropolitan areas with substantial recent construction had low levels of segregation net of other factors. Consider two metropolitan areas that are alike in every respect except that recent construction equals 5 percent of the 1980 housing stock in one and 30 percent in the other (e.g., Buffalo, NY and Charlotte, NC). The metropolitan area with 30 percent new construction had a segregation score 3 points lower than the area with 5 percent new construction, suggesting that neighborhoods built recently were less segregated, perhaps as a result of the Fair Housing Act.

Population size had a significant positive independent effect on segregation—small metropolitan areas were less segregated than large areas. The 232 metropolitan areas had an average population of 400,000 in 1990. A metropolitan area of 400,000 is estimated to have a segregation score 3 points lower than a comparable metropolitan area of 1 million population.

Table 2. OLS Partial Regression Coefficients for Regression of Segregation Scores on Selected Independent Variables; U. S. Metropolitan Areas, 1990

Independent Variable	Partial Regression Coefficient	Mean	S.D.
Intercept	53.3 (6.8)		
Region[a]			
Northeast	+6.01** (3.6)	.14	.35
Midwest	+6.58** (4.9)	.26	.44
West	+.28 (.1)	.11	.31
Functional Specialization[a]			
Retirement communities	+11.52** (5.8)	.06	.25
Durable goods manufacturing	+1.61 (1.1)	.18	.39
Nondurable goods manufacturing	−.86 (−.5)	.09	.28
Government communities	−2.29 (−1.4)	.08	.27
University communities	−7.94** (−4.4)	.06	.25
Military communities	−8.00** (−5.1)	.09	.29
Age of Metropolitan Area[a]			
1900 or earlier	+.72 (.4)	.24	.43
1910 to 1940	+.07 (.1)	.28	.45
1950 to 1960	+.16 (.1)	.17	.38
1970 or later	−2.37 (−1.6)	.15	.35
Housing Units Built 1980–1989 as a percent of 1980 stock	−.13** (−3.5)	19.0	14.4
Population (log), 1990	+3.12** (5.3)	12.9	1.1
Percent of minority population nonblack, 1990	−.12** (−5.1)	28.5	23.6
Black Household Income as a percent of white household income, 1990	−.38** (−6.2)	62.3	7.9
Adjusted R^2	.68		
Number of metropolitan areas	232		

* $p < .05$ ** $p < .01$ (two-tailed tests)

[a] Omitted categories are "South" for region, "Diversified" for functional specialization, and "No Central City of 50,000" for age of metropolitan area.

Note: Figures in parentheses are *t*-statistics. Because the dependent variable has a truncated range—0 to 100—a logit transformation has been used in similar analyses (Massey and Denton 1987). However, the distribution of the dependent variable is nearly normal (Figure 2) so OLS regression with an untransformed segregation score is appropriate.

A metropolitan area's size, age, and age of housing stock are intertwined—many old areas are large, but have grown little in recent decades. However, age of metropolitan area had no independent effect on segregation scores in 1990. Although old metropolitan areas were more segregated, this relationship reflects the size of these areas and the lack of new housing.

The presence of minorities other than blacks had a net effect of significantly lessening the segregation of blacks from whites, lending support to the "buffering" thesis. Segregation in a metropolitan area in which nonblack minorities made up only 3 percent of the minority population was 5 points higher than that in a comparable area in which they make up 41 percent (e.g., Birmingham, AL versus Dallas, TX).

Analysts have suggested that the growth of the black middle class should foster residential integration (Massey and Denton 1987:817; Taeuber and Taeuber 1965:78–86). Metropolitan areas in which black household income was high relative to white household income had significantly lower segregation scores, net of other variables. In Riverside, CA black household income was 82 percent of white household income; in Memphis, TN this figure was only 50 percent. This difference translates into a 12-point net difference in residential segregation scores, suggesting that improvements in the economic status of blacks may lead to residential assimilation.

EXPLAINING CHANGES IN SEGREGATION IN THE 1980S

Segregation between blacks and whites changed little in Detroit, MI in the 1980s, but fell by 11 percent in Los Angeles, CA and by 20 percent in Fort Worth, TX. What accounts for this variation? An ecological model assumes that long-standing characteristics of a metropolis may either facilitate or impede declines in segregation. The influence of these characteristics is mediated by other changes like new construction, growth of white and minority populations, and shifts in the economic status of blacks.

Changes in segregation during the 1980s are analyzed using the ecological variables described, but we also include two measures of differentials in growth: the average annual growth rate of the black population minus the average annual growth rate of the white population, and the average annual growth rate of "other races" minus the average annual growth rates for blacks.

Factors other than the ecological variables may also explain changes in segregation. Segregation should decline in areas in which the economic status of blacks relative to whites increased. To index this, we calculated mean household income of blacks as a percent of whites' mean household income for 1980 and 1990. Subtracting the 1980 percentage from the 1990 percentage reveals that, despite the emergence of a black economic elite, the average income of black households fell further behind that of whites: In 1980, black household income averaged 65 percent of white household income as compared to 62 percent in 1990. Blacks gained on whites on this measure of prosperity in only 55 of the 232 metropolises.

The success of the open housing movement (e.g., programs that encouraged stable integration in Shaker Heights and Oak Park) probably influenced changes in segregation during the 1980s. Although Saltman (1990) provided information about many successful integration strategies throughout the country, there is no systematic assessment of these programs. Therefore, we cannot rate metropolises with regard to the effectiveness of their open housing efforts.

The discriminatory practices by real estate brokers and lenders are relevant to changes in segregation. A recent HUD audit provided quantitative information for 19 metropolises, but such data are not available for all 232 metropolitan areas (Yinger 1991:table 18)

Data on racial attitudes for all areas could also help explain intermetropolitan changes in segregation. Although such data are not available, we calculated an index tapping the racial attitudes of whites. If whites are reluctant to live in neighborhoods with relatively many blacks, then some metropolitan areas should be easier to integrate than others. Suppose in one metropolitan area whites live in neighborhoods that, on average, are only 2 percent black. In another, whites live in neighborhoods in which, on average, 12 percent of the residents are black. Whites in the former area may be less hostile to a few more blacks moving into their neighborhoods, because neighborhoods will

Table 3. Partial Regression Coefficients for Regression of Percent Change in Segregation Score on Selected Independent Variables: U. S. Metropolitan Aras, 1980–1990

Independent Variable	Partial Regression Coefficient	Mean	S.D.
Intercept	−12.12 (−2.2)		
Region[a]			
Northeast	+6.1** (4.5)	.14	.35
Midwest	+4.3** (3.7)	.26	.44
West	+3.0* (2.2)	.11	.31
Functional Specialization[a]			
Retirement communities	+3.3** (2.1)	.06	.25
Durable goods manufacturing	−.11 (−.1)	.18	.39
Nondurable goods manufacturing	+1.7 (1.3)	.09	.28
Government communities	+2.3 (1.8)	.08	.27
University communities	+1.2 (.9)	.06	.25
Military communities	−3.0** (2.8)	.09	.29
Age of Metropolitan Area[a]			
1900 or earlier	−2.1 (−1.5)	.24	.43
1910 to 1940	−1.6 (−1.4)	.28	.44
1950 to 1960	−1.7 (−1.4)	.17	.38
1970 or later	−2.0 (−1.6)	.15	.35
Housing units built 1980–1989 as a percent of 1980 stock	−.16** (−5.2)	19.0	14.4
Population (log), 1980	+.34 (.7)	12.8	1.0
Average annual growth rate, black minus white, 1980–1990	+.05 (.2)	.9	1.3
Average annual growth rate, other races minus black, 1980–1990	−.10 (−.7)	3.1	2.6
Change in black household income as a percent of white household income, 1980–1990	−.10 (.7)	−3.3	5.4
White exposure to blacks, 1980	+.61** (6.2)	6.1	4.3
Adjusted R^2	.41		
Number of metropolitan areas	232		

* $p < .05$ ** $p < .01$ (two-tailed tests)

[a] Omitted categories are "South" for region, "Diversified" for functional specialization, and "No Central City of 50,000" for age of metropolitan area.

Note: Figures in parentheses are *t*-statistics.

still be overwhelmingly white. In the latter area, resistance of whites may be greater because it may appear that neighborhoods are being overrun by blacks.

Data from the Census of 1980 were used to calculate the exposure of whites to black neighbors (James and Taeuber 1985; Lieberson 1981; Massey and Denton 1987, 1988). In many metropolises, a few whites lived in majority black neighborhoods, while most whites lived in areas housing just a few blacks. We considered whites in each metropolis and determined the average percent of their neighbors who were black. This index assesses the typical white resident's "exposure" to black neighbors at the start of the decade. Whites in the 232 metropolitan areas lived in block groups in which, on average, 6 percent of the population was black. In southern metropolitan areas with high percentages black and moderate levels of segregation, whites had relatively many black neighbors; in Tallahassee, FL whites lived in neighborhoods in which 18 percent of the residents, on average, were black; in Richmond and Norfolk, VA the figure was 13 percent. In northern metropolitan areas, whites were much less "exposed" to black neighbors: In Kansas City, KS and Detroit, MI whites lived in neighborhoods that averaged only 4 percent black; in Chicago, IL and Milwaukee, WI the figure was just 3 percent.

Table 3 presents the results of the analysis of changes in segregation scores in the 1980s. We wished to study the rate of change in black-white segregation, so the dependent variable is the percent change in the index of dissimilarity. The average change was a decrease of 5.9 percent. Region, as anticipated, had a strong net positive effect (i.e., the shift toward lower segregation levels was muted in the Northeast and Midwest), reflecting the proliferation of small suburbs with traditions of hostility toward blacks. Litigation against discriminatory practices is also hampered in these regions, because court orders often apply only to a particular suburb.

Net of other factors, only two types of functional specialization were significantly related to the percent change in black-white segregation scores between 1980 and 1990. Segregation declined relatively little in retirement communities, probably a result of the type of housing in these areas and the attitudes of their resi-

dents. Military locations, which had low levels of segregation in 1980, had significantly larger percentage declines.

The age of a metropolitan area had no independent effect on percent change in segregation scores. However, a high percentage of new construction was a powerful force promoting integration. A metropolitan area in which housing built during the 1980s made up only 5 percent of the 1980 housing stock had a percentage decline in segregation 4 points smaller than a comparable area in which new housing was 30 percent of the 1980 housing stock.

Population size was linked to the percent change in segregation—large metropolitan areas experienced the smallest declines, but the net effect was not significant. We hypothesized that the percent decline in segregation would be unusually large for metropolitan areas in which the black population grew rapidly compared to the white population (Massey and Denton 1987:819). Presumably, neighborhoods in such areas would be temporarily integrated as racial transition begins. However, this variable had no significant effect on the percent change in segregation scores.

Having shown in Table 2 that a relatively large "other races" population in 1990 was associated with lower levels of black-white segregation, we expected that places in which the Latino and Asian populations grew rapidly relative to the black population would experience declines in segregation. Although the effect was in the expected direction, it was small and not significant.

The effect of changes in the incomes of black households relative to white households was in the anticipated direction—improvement in the incomes of black households relative to white households was associated with declines in segregation, but the effect was small.

The exposure measure had a substantial net impact on the percent change in segregation scores. The higher the percentage black that whites were exposed to in their neighborhoods in 1980, the greater the persistence of segregation during the decade. Compare an area in which whites lived in block groups that averaged 2 percent black (e.g., Boston, MA) with a comparable metropolitan area in which whites lived in block groups that averaged 12 percent black (e.g., New Orleans, LA). The decline in segregation would be 6 percentage points less in New Orleans than in Boston.

Summary

Explanation of variation among metropolitan areas in the percent change in segregation scores during the 1980s must consider local area conditions as well as three national-level factors. First, the heavy hand of the past maintains segregation in old metropolitan areas, i.e., functional specialization, suburban patterns, and housing stock of these areas discourages integration, especially in the Northeast and Midwest (Hershberg, Burstein, Erickson, Greenberg, and Yancy 1981). Second, a high percentage of new housing is linked to declines in segregation. Presumably, new housing developments are less segregated than the old ethnic ghettos. Also, a high rate of housing construction may encourage residential mobility throughout a metropolitan area. Finally, the racial attitudes of whites may limit integration. As Massey and Gross (1991) observed, reductions in segregation in the 1970s were confined to metropolises in which blacks were so few they could be accommodated in white neighborhoods without threatening whites. In the 1980s, declines in segregation were not limited to areas with relatively small black populations, but the largest decreases in segregation occurred in metropolitan areas in which blacks made up a small percentage of the neighborhood of the typical white.

CONCLUSION

This analysis of the forces affecting the residential segregation of blacks and whites suggests the following characteristics of segregation for the 1990s.

(1) A gap between attitude and behavior. Racial attitudes have changed—most whites now endorse the *principle* of equal opportunities for blacks in the housing market. However, the evidence from the Detroit study and our analysis of the percent change in segregation in 232 metropolitan areas suggest that most whites are uncomfortable when numerous blacks enter their neighborhoods. Also, few whites will move into neighborhoods with many black residents. The conservative attitudes of whites and their fear of becoming a minority in a neighborhood limit the desegregation that can occur. Presumably, attitudes toward Latinos and Asians are not so restrictive.

(2) A stronger link between the economic status of blacks and integration. Studies of the residential segregation of European ethnic groups and other racial minorities, including Latinos and Asians, report that economic assimilation was associated with lessened segregation from native-born whites (Lieberson 1963:chap. 5). This association is not true for blacks, because Jim Crow laws applied to all blacks regardless of economic status (Denton and Massey 1988; Farley and Allen 1987:table 5.10; Massey 1979, 1981; Massey and Denton 1987; Taeuber 1965). This situation may have changed. A substantial and rapid growth of the black middle class should lead many members to seek high quality housing. Some metropolitan areas may have enough middle-class blacks that prosperous, largely black suburbs will emerge (Dent 1992; Garreau 1991). In others, middle- and upper-class blacks may choose to live in integrated areas where their status should elicit greater acceptance by white neighbors. With declining employment opportunities in the industrial North, many middle-class blacks will follow new migration paths, leading to black gains in areas in the West and "New South" where segregation is not so entrenched (Frey 1993).

(3) Differences among metropolitan areas in segregation. Institutionalized discrimination that denied blacks equal treatment in the housing market will persist in the old metropolitan areas of the industrial North and some portions of the Old South. However, in developing parts of the West and South, such practices may be less firmly established and many of these areas now have relatively more Hispanics and Asians than blacks. These areas, which initially did not attract black migrants, have low segregation levels and registered the biggest percent decline in segregation during the 1980s.

In an analysis of residential segregation in large metropolitan areas during the 1970s, Massey and Denton (1987) concluded:

> If black residential integration has occurred at all, it has not been within metropolitan areas where the vast majority of blacks live, but through movement to small and mid-size cities that presently contain few black residents. Perhaps the growth of black populations in these smaller metropolitan areas will be the means by which residential integration will finally occur in the United States. (p. 823)

Our analysis suggests that this scenario may become reality during the 1990s. The 25 percent of metropolitan areas with the largest decreases in segregation in the 1980–1990 decade had the lowest average percent black, exhibited the highest average annual growth rate for blacks over the 1980s, and the highest average annual growth rate in mean household income of blacks, suggesting that segregation may remain low in these areas. However, the American apartheid system may break down slowly, if at all, in the old, large metropolitan areas.

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