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Residential segregation in American cities: a review and interpretation

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Abstract. Significant levels of separation between blacks and whites still exist in large American cities, and debate about the causes of that residential separation has been considerable. A balanced analysis of the factors that might explain residential segregation – economic status (affordability), social preferences, urban structure, and discrimination – suggests that no one factor can account for the patterns that have arisen in U.S. metropolitan areas. Empirical estimation of the impact of economic status suggests that 30–70 percent of racial separation is attributable to economic factors. However, economic factors do not act alone, but in association with preferences. Together with elements of the urban structure, these factors bear much of the explanatory weight for present residential patterns. Survey evidence from both national and local studies shows that black households prefer neighborhoods that are half black and half white, while whites prefer neighborhoods ranging from 0 to 30 percent black.

The debate about causes seems most polarized over the role of discrimination. Although comments in the literature often focus on the past use of racially restrictive covenants by state-regulated agencies and discriminatory acts by realtors and financial institutions, the documented individual cases of discrimination do not appear to be part of a massive collusion to deny housing opportunities to minorities. A review of the evidence from social science investigations demonstrates that there are multiple causes of racial residential separation in U.S. metropolitan areas.

Introduction

The attempt to understand the extent and causes of racial residential segregation has generated a voluminous literature. It ranges from reports on of the level of segregation to explanatory models of the patterns of residential separation in the major cities of the United States. At least some of the research has been stimulated by the comment in a U.S. Supreme Court opinion that the causes of racial residential segregation are unknown and perhaps unknowable (Milliken v. Bradley, 1974: 716). Even in 1974, we knew much more about the extent and causes of residential separation than is suggested by this casual comment, and since that time, in the succeeding dozen years, the research literature has provided us with a much clearer picture of the relevant variables and their explanatory contribution to the patterns and causes of residential segregation.

This paper will first examine the present pattern and recent temporal

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changes in racial residential segregation, and then focus on the state of our present knowledge about the causes of racial concentration in cities. The paper will draw on the published literature, research analyses presented as part of court proceedings, and survey evidence gathered nationally and for specific cities.

Urban differences and temporal changes in residential segregation

Before we discuss the extent of residential segregation, a word is in order about measures of segregation. Currently, two measures, the dissimilarity index and the exposure index, are widely used in measuring racial residential segregation[1]. The dissimilarity index computes the proportional difference between the numbers of black and whites in some geographic unit, usually a census tract, of the city or metropolitan area. The dissimilarity index indicates the minimum proportion of blacks (or whites) who would have to change their sub-area of residence to obtain an even distribution of that race across all sub-areas of the city. It has been used widely, and its interpretation is quite straightforward. The second index, the exposure index, is a measure of how racial composition would translate into actual contact, as seen from the perspective of either a typical black or white individual. The exposure measure is a useful summary measure of one group's residential isolation from, or potential for encountering, another group. Under complete separation, blacks (or nonblacks) would tend toward contact only with other blacks (or non-blacks). Under complete balance, they would encounter members of the other race at a rate equal to the city-wide proportion of that group. The exposure index can be computed to describe whites' encounter with blacks or blacks' encounter with whites; moreover, the index can be expressed in either absolute or relative terms (the latter with reference to the city-wide potential for exposure). The notable difference between the relative exposure index and the dissimilarity index is that the dissimilarity index can (misleadingly) register quite high values even when the proportion of a minority race is very low, and even though that proportionally tiny minority race might encounter members of the non-minority race frequently. Thus, a situation involving five schools each with 100 students, where five black students were in one of the five schools, would yield a dissimilarity index of 0.80, but if one black student was in each of five schools, the dissimilarity index would be 0. The relative exposure index in the former case would be (more realistically) 0.04. This possibility underscores the conceptually distinct notion each measure conveys. Both indices have a range from 0 to 1 (or 0 to 100) where 0 is no separation (or completely random exposure) and 1 is complete separation (or isolation)[2]. For technical reasons, real-world distributions of blacks and whites rarely if ever

register values of exactly zero; they only approximate them.

There are several extensions of these indices, and alternatives have been proposed by Jakubs (1981) and by Lieberson and Carter (1982). The dissimilarity index in particular has been criticized by Winship (1978) and Zelder (1977), but both indices are used widely, give us comparative benchmarks, have clear interpretations, and therefore will be utilized in this paper as *general* measures of the degree of segregation. However, the debate over measurement procedures is more than a technical issue. If we are to make specific public policy decisions which are based on measures of the level of segregation, we must be sure that the tests are measuring exactly what we intend them to. To illustrate, if index A indicates that city X is twice as segregated as city Y, and a public body chooses, or is ordered by a court system, to remedy the levels of separation in both cities, should the remedy in city X be twice as potent (or expensive)? What if an alternative index suggests lesser differences? For example, Baltimore (Table 1) was almost twice as segregated as San Jose on the dissimilarity index in 1970, but the exposure index suggested that while Baltimore was substantially segregated, San José was not.

It is apparent from the index values (Table 1) that extensive separation by race persisted at the last point of measurement. It is clear that black or minority households are separated and concentrated throughout the *major* metropolitan areas of the United States. The indices conform to our intuitive knowledge about the location of minority populations. However, the levels of separation vary widely across cities and in some cities are small. It is also worth noting that the index for 1980 is calculated for black versus nonblack and (although comparable with 1970 black versus white indices) does not reflect the increasing percentages of hispanics, many of whom are classified as white. The increasingly tri-ethnic (and in some cities, multi-ethnic) structure of metropolitan areas complicates our interpretation of these indices for 1980.

The need for two indices is further emphasized by a comparison of the indices for cities with low percentages of minorities. Both Minneapolis and Seattle have dissimilarity indices of almost 0.8 in 1970 but exposure indices of about 0.4. This suggests that we must be careful in characterizing levels of separation as 'high' (e.g., closer to 1.0 than to 0.0) or 'low' because one's choice of index may reverse such simplistic charaterizations. It reflects the fact, noted earlier, that with lower percentages of minority households, there is greater opportunity for contact or exposure (e.g., 20 blacks in a city of 200,000 whites would tend toward random encounter with whites).

Temporally, there is a confused pattern of change between 1960 and 1970. Most metropolitan areas have increases in the indices but some do decline. However, between 1970 and 1980 there are declines in the levels of separation for all cities. Twenty-five SMSAs had a decrease in the levels of separation of 5

Table 1. Comparison of degree of separation in the 38 metropolitan areas over 1 million persons.

Metropolitan population (a)	1980 Metropolitan population* (millions)	% Black	Dissimilarity index			Exposure index		
			1960	1970	1980	1960	1970	1980
New York	9.12	21.3	0.744	0.738	0.728	0.538	0.526	Not
Los Angeles – Long Beach	7.48	12.6	0.892	0.885	0.764	0.654	0.712	available
Chicago	7.10	20.1	0.912	0.912	0.863	0.814	0.832	
Philadelphia	4.72	18.8	0.771	0.780	0.770	n.a.	0.625	
Detroit	4.35	20.5	0.871	0.889	0.871	0.686	0.758	
San Francisco – Oakland	3.25	12.0	0.794	0.773	0.682	0.500	0.541	
Washington	3.06	27.9	0.777	0.811	0.693	0.665	0.712	
Dallas	2.98	14.1	0.812	0.869	0.762	0.673	0.757	
Houston	2.91	18.2	0.805	0.784	0.719	0.661	0.615	
Boston	2.76	5.8	0.808	0.793	0.758	0.480	0.574	
Nassau – Suffolk NY	2.61	6.2	–	–	0.754	–	–	
St. Louis	2.36	17.3	0.859	0.865	0.815	0.718	0.727	
Pittsburgh	2.26	7.8	0.744	0.745	0.728	0.433	0.514	
Baltimore	2.17	25.6	0.824	0.810	0.741	0.693	0.723	
Minneapolis	2.11	2.4	0.833	0.799	n.a.	0.314	0.390	
Atlanta	2.03	24.6	0.771	0.817	0.768	0.650	0.725	
Newark	1.97	21.3	0.728	0.788	0.786	n.a.	0.617	
Anaheim-Santa Ana	1.93	1.3	–	0.723	0.404	–	0.162	

Cleveland	1.90	18.2	0.896	0.902	0.875	0.765	0.790
San Diego	1.86	5.6	0.795	0.762	0.586	0.392	0.482
Miami	1.63	17.2	0.895	0.857	0.771	0.772	0.725
Denver	1.62	4.8	0.846	0.847	0.678	0.551	0.607
Seattle	1.61	3.6	0.833	0.781	0.656	0.472	0.444
Tampa-St. Petersburg	1.57	9.3	0.836	0.845	0.773	0.593	0.678
Riverside – San Bernardino	1.56	5.0	–	–	0.495	–	–
Phoenix	1.51	3.2	0.811	0.754	0.565	0.392	0.366
Milwaukee	1.40	10.8	0.904	0.895	0.834	0.643	0.719
Cincinnati	1.40	12.4	0.832	0.818	0.779	n.a.	0.624
Kansas City	1.33	13.0	0.874	0.833	0.784	n.a.	0.714
San Jose	1.30	3.4	0.656	0.511	0.403	0.037	0.046
Buffalo	1.24	9.2	0.868	0.857	0.796	0.586	0.691
Portland	1.24	2.7	0.813	0.802	0.680	0.401	0.412
New Orleans	1.19	32.6	0.650	0.742	0.704	0.518	0.610
Indianapolis	1.17	13.5	0.787	0.838	0.786	0.612	0.664
Columbus	1.09	12.3	0.761	0.809	0.727	0.528	0.596
San Antonio	1.07	6.8	0.768	0.740	0.545	0.413	0.492
Ft. Lauderdale – Hollywood	1.02	11.2	–	0.949	0.833	–	0.858
Sacramento	1.01	6.0	0.721	0.661	0.525	0.235	0.235
MEDIAN	1.88	12.15	0.8115	0.8095	0.754	0.5685	0.6205

Sources: Exposure indices from Schnare (1977); dissimilarity indices from Van Valey, Roof, and Wilcox (1977) and Taeuber *et al.*, (1984).

* Metropolitan is equivalent to 1980 SMSA definition.

– indicates not an SMSA in that year.

percentage points or more (Table 1). The continuation of this trend will lower levels of separation across all large metropolitan areas. At least part of the explanation for the decrease in levels of separation from 1970 to 1980 is related to increasing black suburbanization, and this in itself requires an interpretive comment.

Black suburbanization

One of the significant trends of the 1970s was the movement of the black population from central cities to nearby suburbs (Table 2). For a long time, studies of minorities and minority segregation focused on the nation's central cities – it was there that the minority populations were concentrated. Until 1970, there was little suburbanization of the black population (Van Valey *et al.*, 1977). The increase since 1970 is dramatic, and there are now large percentages of the black population outside the central cities of some metropolitan areas (Table 3). Even so, black suburbanization is not new; there have always been black communities in suburban locations (Rose, 1976). Now there are more than six million blacks in the suburbs and they constitute 6 percent of the nation's suburban population. However, it is not a consistent pattern. In some metropolitan areas, the suburban black proportion has actually decreased because of extensive white migration into areas where there were formerly black populations. And, black suburbanization is somewhat concentrated in a number of large cities – Los Angeles (partly a statistical artifact), San Francisco-Oakland, Washington, St. Louis (also a statistical artifact), Philadelphia, Pittsburgh, Newark, Atlanta, Miami, and Ft. Lauderdale (Table 3). As Rose (1976) has noted, in several cases it is in the older and larger metropolitan areas that much of the black movement to the suburbs has taken place. It was in these cities that there was a large core black population, and it is from these concentrations of blacks that the nearby suburbs drew sizeable numbers of black in-migrants. However, this is only a partial explanation

Table 2. Black suburbanization 1950–1980.

Year	Number of blacks in suburbs*	Blacks as percent of suburban population	Percent of black population in suburbs
1950	1,737,000	5.0	21.9
1960	2,504,000	4.6	20.5
1970	3,630,000	4.9	21.6
1980	6,170,000	6.0	28.7

Source: U.S. Bureau of the Census (1975) and U.S. Bureau of the Census (1982).
* Suburbs defined as metropolitan ring counties.

Table 3. Percent of black SMSA population outside the central city, 1980.

	1980 Metropolitan population (millions)	% Black in SMSA	% of Black population in suburbs (outside central city)
New York	9.12	21.3	8.2
Los Angeles – Long Beach	7.48	12.6	42.2
Chicago	7.10	20.1	16.2
Philadelpia	4.72	18.8	27.8
Detroit	4.35	20.5	14.8
San Francisco – Oakland	3.25	12.0	37.3
Washington, D.C.	3.06	27.9	47.5
Dallas	2.98	14.1	15.6
Houston	2.91	18.2	16.8
Boston	2.76	5.8	21.2
Nassau – Suffolk NY	2.61	6.2	n.a.
St. Louis	2.36	17.3	49.4
Pittsburgh	2.26	7.8	42.2
Baltimore	2.17	25.6	22.6
Minneapolis	2.11	2.4	16.4
Atlanta	2.03	24.6	43.3
Newark	1.97	21.3	54.2
Anaheim – Santa Ana	1.93	1.3	52.9
Cleveland	1.90	18.2	27.3
San Diego	1.86	5.6	25.0
Miami	1.63	17.2	68.9
Denver	1.62	4.8	24.3
Seattle	1.61	3.6	19.1
Tampa – St. Petersburg	1.57	9.3	28.1
Riverside – San Bernardino	1.56	5.0	63.0
Phoenix	1.51	3.2	21.0
Milwaukee	1.40	10.8	2.7
Cincinnati	1.40	12.4	25.3
Kansas City	1.33	13.0	5.3
San Jose	1.30	3.4	34.2
Buffalo	1.24	9.2	16.5
Portland	1.24	2.7	15.7
New Orleans	1.19	32.6	20.3
Indianapolis	1.17	13.5	2.7
Columbus	1.09	12.3	7.5
San Antonio	1.07	6.8	21.4
Ft. Lauderdale – Hollywood	1.02	11.2	67.5
Sacramento	1.01	6.0	39.4
MEDIAN	1.88	12.15	24.3

Source: Calculated from U.S. Bureau of the Census (1982).

because several 'newer' cities (Riverside-San Bernardino, Anaheim, and Sacramento) all have sizeable suburban black populations.

In the discussion of black suburbanization, there has been a debate as to whether black suburbanization is largely a spillover activity – that is, the spread of a central city core to nearby communities – and is thus the continuing expansion of still-isolated black concentrations from central cities to surrounding suburbs (Rose, 1976; Lake, 1981), or whether it is an isolation-reducing dispersion throughout largely white areas (Spain and Long, 1981). The distinction is between black concentration in the suburbs which is not different from that observed in central cities, on the one hand, and little if any concentration in suburban tracts, on the other.

During the 1970s, at least two studies showed black suburban movers to be comparatively younger, more affluent, and more educated than blacks remaining in the cities (Clay, 1979; Nelson, 1979). These observations are consistent with arguments by Spain and Long (1981) who show (using 1970 Census and Annual Housing Survey data) that recent black movers to the suburbs are relocating in white areas. For example, in their study, over 40 percent of the city-suburban black movers in the mid 1970s went to census tracts that were less than 10 percent black in 1970, and another 27 percent went to tracts between 10 and 40 percent black. They note that blacks not only are moving to predominantly white neighborhoods but that the economic status of black movers is higher, and that the favored destinations varied clearly by socio-economic status (even though blacks average lower socioeconomic status than whites).

The evidence that black suburbanization was a form of spillover seems to apply to the process up until the early 1970s. Thereafter, spillover seems to have been overlaid by a noticeable degree of dispersive movement to all-white residential areas. The fact that there is now significant black suburbanization, with long-term implications for the levels of segregation as a whole, seems to be well established. Frey (1985) contends that black gains in social status will improve black-white relations and that those gains will manifest themselves in an increased suburban destination selectivity among black movers of all ages of the life cycle. This assertion is suggested by the fact that the destination propensity rates of movers in the late 1970s are significantly more suburban directed than those of earlier decades in all of the metropolitan areas examined (Frey, 1985). Even so, there is likely to be continued white outmigration from central cities, and thus even with black suburbanization, the concentration of minorities in central cities as a whole is likely to increase over time, even as Frey's scenario is realized. Suburbanization levels for blacks are still lower than those of whites, and it is still the well-to-do few who have been generating the trend toward black suburbanization (Nelson, 1979).

Causes of residential segregation

When we turn to the attempts to *explain* the patterns of residential segregation, almost all of the studies, both analytic and descriptive, recognize a multiple causal structure underlying racial residential segregation. However, some scholars leave the impression that, of the potential explanatory factors for racial residential separation (including economic status (affordability), social preferences, urban structure, and discrimination), discrimination is the major one – and that it is principally public or government discrimination. However, a question exists about whether separation results from a dominant factor – discrimination – or from a complex of reinforcing factors that in concert generate the observed pattern of racial separation.

The 'single-factor' argument is exemplified by a report to the court in the St. Louis desegregation case of Lidell v. School Board of St. Louis. In that report, Orfield (1981b: 17) stated: 'The racial patterns of metropolitan St. Louis are no accident; they are the result of generations of public and private discrimination, discrimination which has included direct government decisions, which have shaped vast sections of the urban landscape and determined where many thousands of families, both in the private market and in subsidized housing could or could not live.' In contrast, the multiple factor view is exemplified by Leven *et al.*, (1976: 144) and Berry (1979: 418–419) who argue that neighborhood income and socioeconomic levels, as well as the whole complex of conscious explicit preferences, are the critical predictors of residential patterns. The argument is also made by Becker (1957) and Muth (1969); Muth (1969: 109), for example, states that 'the fact of residential segregation need not imply discrimination, or higher prices [to blacks] for housing of comparable quality.'

A central issue here is how the multiple variables which may have generated residential patterns rank in salience and force of impact. Thus, the remainder of this section reviews and attempts to generalize from existing evidence on the ranking of factors generating racial residential segregation. Much of the literature, unfortunately, is comment rather than analysis; in what follows, I will rely primarily on the latter.

Economic status (affordability)

The residential separation of blacks and whites surely reflects the known economic differences between the races. What exactly do we mean by 'economic differences'? These include a complex set of factors – income, the extent of household wealth (assets), equity (in housing), and varying expenditure patterns by different population compositions. The existence of these factors,

Table 4. A comparison of black and white household economic data for selected SMSA's, 1980.

	National		Atlanta		Cincinnati		Kansas City		Milwaukee	
	Black	White	Black	White	Black	White	Black	White	Black	White
Income ($)										
Median household income	10943	17680	11232	20654	10652	19020	12162	19948	12187	20899
% <$10,000/year	47	27	45	20	46	24	42	22	43	20
% >$35,000/year	6	14	0.6	19	5	15	7	16	8	17
Housing										
% owner-occupied	44	68	42	67	35	67	52	69	35	63
Median house value ($)	27200	48600	29200	51000	36600	48300	19100	45800	29600	61400
Median gross rent ($)	208	251	201	279	163	220	193	248	233	256
Assets*										
(not including housing equity)	678	8082	*	*	*	*	*	*	*	*
Housing/income relation										
House value as a % of annual median income	249	275	260	247	344	254	157	230	243	294
Monthly rent as a % of median monthly income	23	17	21	16	18	14	19	15	22	15

Source: U.S. Bureau of the Census (1980) and U.S. Bureau of Labor Statistics (1978: tables 24/25).

* National data only.

operating in concert, is beyond dispute; only their comparative importance is debatable.

For selected cities, Table 4 compares median household income, the percent below the poverty level, the prevalence of wealthier households, median house value for minority and non-minority households, as well as measures of economic assets. (Unfortunately, the measures of assets are available only for the nation as a whole). The differences between black and non-black households are striking. Plainly, income differences would translate into differential capacity to purchase and rent housing by black households. However, income is *not* the sole factor of critical relevance here. The down payments required for ownership have always blocked many blacks from home ownership (more blacks are renters than owners), which is a major step toward accumulating assets. Moreover, it is a barrier that increased during the inflationary spiral of the late 1970s (Grebler and Mittelbach, 1979). Such household wealth is often overlooked in debates about the role of economic factors; yet it may be the most critical explanation for the lack of larger numbers of black households in the suburbs. The suburban areas are still (largely) made up of owner-occupied housing: it is therefore difficult for minorities who cannot afford to become owners to occupy such dwellings and, hence, become suburbanites. Mitigating further against ownership are blacks' larger-sized families (requiring more spacious dwellings), and the high incidence of female heads (with associated lower incomes).

In order to put the economic status (affordability) variables into a formal framework, Pascal (1967) utilized a multiple regression technique with a set of independent variables which measured blacks' and whites' relative access to jobs, the different proportions of single- and multiple-family structures in a community, and average gross monthly rents for renters (together with a monthly equivalent for owner occupiers). The goal was to predict the fraction of black families who would be expected to reside in specific census tracts. The analysis was applied to both Detroit and Chicago. Based on 1960 census data, Pascal found that between 33 and 46 percent of the variation (across census tracts) in the proportion of all households headed by blacks could be explained by affordability of housing and accessibility to jobs.

In contrast to the economic status argument above, Hermalin and Farley (1973) used income alone as a measure of economic status and projected that 55 percent of black families should be found in the suburbs if income was the sole criterion in explaining residential patterns. However, only 17 percent of these families were actually found in the suburban rings. In a separate study, Farley (1977) also concluded that racial segregation was greater than segregation of social classes. A similar single-factor approach by Kain and Quigley (1975) postulated that if low median income is an explanation of the concentration of blacks in central cities, then low-income whites should also be econom-

ically concentrated in the central cities. They analyzed the distribution of white households with incomes under $3,000 and over $10,000 in terms of how many lived in the suburban rings of eleven specific metropolitan areas. They observed, of course, that proportionately more low-income whites than low-income blacks lived in the suburbs and that there were fewer high-income blacks than high-income whites in the suburbs. They concluded that the salient explanation was therefore not economics. Taeuber (1975), after analyzing rents in the central city and suburbs, also concluded that economic factors are not a significant element in the explanation of racial residential patterns: 'economic explanations for racial residential segregation in summary are of limited truth, even if accepted at face value (Taeuber, 1975: 836–837).

Assessing only a single measure of economic status – be it rental values or incomes – reduces the analysis to an atomistic one. Complex spatial and socioeconomic patterns do not arise from a single force; rather, they reflect cumulative and compounding influences. It is not surprising that one economic measure does not suffice to explain what we observe in American cities.

To provide some empirical evaluation of the complex impact of economic status factors, Pascal (1978) used a simulation approach to reallocate the black population from central Atlanta throughout the six-county region of the SMSA, assuming that their movements were constrained only by income. (Their current housing was used as an indicator of the housing that they could afford.) Clearly, this does not take into account the issues of assets and equity, nor of social preferences (to be considered later). This reallocation produced a significant increase in the proportion of the population that would be found in suburban areas outside the central city. It significantly increased the number of blacks in the tracts of outlying counties. Pascal then added a second step based on his earlier regression model. He allocated black households to suburbs only according to the number of black households who might be expected to move to the suburbs *given where they were employed.* Because blacks are disproportionately employed in the central city, he argued that an important fraction of these black households would be as reluctant to undertake a long commute from suburbs to central city as their white counterparts; that is, the model allocated blacks to suburban tracts such that the proportion of blacks commuting to the central city was the same as the proportion of whites commuting to the central city. The effect of this step was that a significant number of black households remained in the central city, households that might on housing and income grounds *alone* have been expected to live in the suburbs. The actual level of segregation under the dissimilarity index (0.86) and exposure index (0.77) decline to 0.65 and 0.54 when black households are redistributed and white households remain in place. When the less plausible assumption is made – that black households are redistributed outside Atlanta and are replaced by white households – the indices drop to 0.60 and 0.38 (Table 5). Under either

scenario, affordability and commuting are clearly important factors in understanding the patterns of residential separation. Between 49 percent (.38/.77) and 70 percent (.60/.86) of separation is attributable to these economic and job location factors. Clearly, housing costs and work distance alone yield a significant explanation for current residential patterns.

This estimate is consistent with other research. For example, Muth (1969: 278) noted that 'housing quality improves dramatically as the incomes of the lower income groups increase.' Another study of neighborhood change concluded that 'achieving racial integration may be substantially easier than achieving integration by economic class at a neighborhood level' (Leven *et al.*, 1976: 202). Of course, to the extent that minorities are poor, there will be continuing separation of the races. The options exercised by families that move appear highly consistent with the view that it is not merely racial prejudice that is at work but, more broadly, issues of class and economic differences. As the following quotation suggests, racial separation reflects the attitudes of blacks as well as whites.

> . . . a former serious barrier to achieving racial integration in neighborhoods is posed by the far greater instance of low income and poverty among black families than among white families . . . While our research can hardly be regarded as the final word on the subject, it strongly indicates that except for the genuinely poor, all people – white and black, rich and not so rich, are willing to pay, and substantially, to avoid class integration. This should hardly surprise us. Rising above humble origins to make it in the new and better neighborhood is central to our societal tradition. Without passing judgment on it we must acknowledge the tradition, and we certainly do not seek policies to destroy it. (Leven *et al.*, 1976: 202–203).

A related economic status argument centers on public housing, which may be inequitably distributed throughout the city, thereby limiting prospects for

Table 5. Changes in dissimilarity and exposure indices assuming redistribution of black households in the Atlanta SMSA*.

Assumption	Dissimilarity index	Exposure index
Actual level of segregation	0.86	0.77
Atlanta black households distributed outside City of Atlanta	0.65	0.54
Atlanta black households distributed outside City of Atlanta and replaced by displaced white households	0.60	0.38

* Six counties, including: Cass, Clayton, Cobb, DeKalb, Douglas, and Fulton.

further integration. Even this seemingly plausible argument has not withstood rigorous analytic scrutiny. In most cities, the amount of public and subsidized housing is miniscule to minor – somewhere in the range of 3–7 percent of the entire housing stock. In general, given this relatively small amount of housing, redistributing that housing throughout the city and allocating minority households to it would have negligible effects on levels of segregation. Thus the current siting of public housing cannot account for any meaningful proportion of racial separation. For example, as part of an analysis in *Goldsboro City Board of Education vs. Wayne County Board of Education,* a simulated re-allocation of public housing from Goldsboro City to the surrounding Wayne County area enabled the analysts to explore this 'what-if' question. Public housing with black residents was reallocated (statistically) from tracts in the city to tracts in the county. The indices of segregation for Goldsboro City increased from 0.35 to 0.36 (dissimilarity) and from 0.18 to 0.22 (exposure). The Wayne County indices changed from 0.22 to 0.18 and 0.07 to 0.05. That is, the indices actually increased in Goldsboro and decreased only marginally in the county. Even if all the public housing had been constructed in the county, it would have affected the levels of segregation only negligibly. Thus, the current siting of public housing cannot be seen as a noteworthy cause of segregated housing patterns. It seems unlikely, despite the arguments of Streitweiser and Goodman (1983), that public policy intervention in this arena will have marked effects.

There have also been discussions of a related economic status issue – whether blacks pay more for housing. Berry (1979) has shown that blacks do not pay more for housing *if housing quality and income levels are held constant.* Even after controlling for housing characteristics and income differences, price levels of single-family homes in Chicago in the period 1968–1972 were highest in the peripheral white areas, dropped in threatened white neighborhoods, showed a modest increase in zones of black expansion and collapsed to their lowest levels within the traditional ghetto (Berry, 1979: 464).

To close this section, it is worth reiterating that there is a vast difference between expected distributions, if only income is the causal variable, and the patterns to be expected under the influences of income, equity, assets, and consumer tastes and preferences of black and white households.

Social preferences

While income is one explanatory factor, it does not act in isolation. As economists, geographers, and sociologists have noted, it is increases in economic status in conjunction with preferences that help to explain present residential patterns. Both Becker (1957) and Muth (1969) postulate that if

whites have a greater aversion to living among blacks than do other blacks, then whites will offer more for housing in predominantly white neighborhoods than would blacks, and separation of the residential areas of the two groups will result. Thus, segregation can be explained in terms of the social preferences of consumers. The importance of preferences should not be underestimated. In combination with economic status measures and the urban structure (to be discussed in the next section), social preference differences furnish the first part of a balanced explanation for the patterns that we see within cities.

An underlying dynamic shared by all households of whatever status is the desire of their members to be able to live in a stable neighborhood where acceptable standards of upkeep and conduct are maintained (Leven *et al.*, 1976: 144). The preference for particular kinds of neighborhood structures, including population and racial composition, is a powerful force in the patterning of metropolitan areas. When we examine survey evidence, including both national and local studies, of the social preferences of black and white households, we find that while whites prefer neighborhoods ranging from 0–30 percent black, blacks clearly prefer neighborhoods which are half black and half white. Utilizing data from national and specific surveys (Detroit, Kansas

Table 6. Summary of recent neighborhood preference studies.*

	All black	Mostly black	Half & half	Mostly white	All white
Black preferences					
National 1978	5.0%	7.0%	85.0%	3.0%	* * *
Detroit* * 1977	12.0%	14.0%	62.0%	10.0%	
Kansas City 1982	4.0%	3.0%	87.0%	6.0%	* * *
Cincinnati (Hamilton County) 1983	7.0%	6.0%	69.0%	7.0%	* * *
White preferences					
National 1978	* * *	1.0%	36.0%	29.0%	34.0%
Kansas City 1982	* * *	0.0%	25.0%	39.0%	36.0%
Cincinatti (Hamilton County) 1983	* * *	6.0%	34.0%	34.0%	26.0%

* 'No difference' responses allocated proportionately to other choices.

* * Central cities only; suburbs excluded.

* * * Not asked.

Sources: National and Detroit studies, Armour v. Nix, Defendant's Exhibit No. 22 prepared by David J. Armor; Kansas City study from surveys by W.A.V. Clark and David J. Armor for Jenkins v. State of Missouri et al.; Cincinnati study from survey by W.A.V. Clark for Bronson v. Board of Education of the City School District of the City of Cincinnati *et al.*

City, and Cincinnati), it is clear that the preferences of blacks are overwhelmingly for neighborhoods which are evenly divided (Table 6). Whites, on the other hand, have clear preferences for much lower percentages of minorities in their neighborhoods. Even in the Cincinnati survey, which is focused only on the central county of the SMSA and in which there are more likely to be respondents in mixed neighborhoods, the results of white and black preferences are generally comparable with other studies.

Earlier, Pettigrew (1973) pointed out that preferences were changing from levels where whites were unwilling to have blacks in their neighborhoods to much more 'accepting' responses, and he suggested that this was an indication of the increasing opportunity for integration. Even if this were true, there is evidence that there is still a significant 'gap' in the preferences of whites and blacks (Table 6). In addition, Schelling (1971, 1978) has shown in some hypothetical situations that even mild racial preferences can produce extreme degrees of segregation. Thus, as long as there is a fair amount of mobility in the city and as long as some blacks and whites favor and/or seek racial homogeneity in their neighborhoods, integrated neighborhoods are likely to be exceptional, and not the rule (Schnare, 1977). Given the high level of mobility that is characteristic of American cities, it can be postulated that even the most zealous application of open housing laws will not bring about integrated neighborhoods with any rapidity.

To shed some empirical light on this point, several analysts have conducted simulation-reallocation studies in which black households are distributed across the city by tract according to their residential preferences. Indices of dissimilarity and exposure are then compared before and after reallocation. Such a reallocation, carried out as part of the Armour v. Nix case in Atlanta,

Table 7. Response of whites to changes in neighborhood composition.

If neighborhood became:	Percent of whites who would try to move out	
	Kansas City (1982)	Cincinnati (1978)
20% Black	11%	8%
30% Black	25%	14%
40% Black	40%	25%
50% Black	47%	36%
60% Black	58%	48%
70% Black	63%	53%

Source: Survey of Kansas City by David J. Armor and W.A.V. Clark for Jenkins v. State of Missouri, et al.; for Cincinnati, survey by W.A.V. Clark for Bronson v. Board of Education of the City School District of the City of Cincinnati *et al.*

showed that the existing level of segregation dropped from a dissimilarity index of 0.86 to an index of 0.71. (The exposure index dropped from 0.77 to 0.42). If the index level also took into account white responses to black preferences – that is, the whites who said they would move if significant numbers of blacks came to live in the neighborhood – the dissimilarity returned to 0.78, and the exposure index to 0.54. Examples of white response for two recent surveys are given in Table 7. Thus, while there is a reduction in the index, the level of reduction indicates that preferences are explaining a notable proportion of the existing level of segregation (Armour v. Nix, 1978, Defendants' Exhibit 24). A similar analysis of segregation carried out for Kansas City (Jenkins v. State of Missouri *et al.)* yielded comparable results. Between 60 and 90 percent of the existing patterns of separation are accounted for by preferences[3]. Again, reallocating black households according to their preferences and then taking into account the white response indicates that there would be significant levels of separation *when preferences alone* were considered. Metropolitan areas, it seems, are a world in which private preferences account for a substantial fraction of observed racial separation. The extent to which social preferences have been translated into private discrimination is evaluated in a later section.

The urban context and information availability

Although we can go some distance toward explaining the end result of residential separation with the examination of both economic status and social preferences, they are, of course, sets of variables which are acting within a wider urban structure. It is important that we identify the way in which this urban structure has an impact on residential choices and behavior.

Perhaps one of the most important points to make about the urban context is that the housing market is a dynamic system in which hundreds of thousands of decisions and tens of thousands of moves are made each year. An analysis of turnover in three cities (Table 8) drawn from the Annual Housing Survey indicates that in any one city there are several hundred thousand residential changes in a five to ten-year period. Indeed, what we may casually regard as a neighborhood community is actually a procession of households coming and going over time. As we will argue later, to see collusive activity in so many entries, departures, and intra-area moves is unnecessary to explain the patterns that have arisen.

One piece of evidence which reflects the urban structure is the distances moved by black and white households in Omaha, Nebraska and Kansas City, Missouri. In these cities, Table 9 shows that when black and white households relocate, black households move somewhat shorter distances than whites.

Indeed, the urban context provides a situation in which we can understand these shorter-distance moves of black households. Many black families (both from anecdotal records and research literature) have identified the importance of family, churches, and neighborhood social institutions in their day-to-day lives. The church in particular has long played a much greater role for ethnic communities than for the later generation white communities (Fischer *et al.*, 1977). Indeed, a plot of recent relocations into a major metropolitan area indicates that black households of all income levels are much more likely to choose neighborhoods in black areas than they are white neighborhoods (Figure 1). Certainly, in the last ten years, with the enforcement of open

Table 8. Estimated turnover of owner and rental units for selected SMSA's.

	Year	Total owner units	Turnover	Total rental units	Turnover
Atlanta	1982	374200	29100	176600	106000
	1981*		32450		105675
	1980*		35800		105150
	1979*		39150		104625
	1978	329800	42500	159800	104100
	1977*		38233		100567
	1976*		33967		97033
	1975	295300	29700	144400	93500
	Total		280900		816650
Cincinnati	1982	316500	13700	188800	67700
	1981*		17375		66400
	1980*		21050		65100
	1979*		24725		63800
	1978	305500	28400	181100	62500
	1977*		25876		62867
	1976*		23333		63233
	1975	276400	20800	169200	63600
	Total		175259		515200
Kansas City	1982	329300	17100	158600	63000
	1981*		22400		63550
	1980*		27700		64100
	1979*		33000		64650
	1978	303800	38300	156300	65200
	1977*		32400		65468
	1976*		26500		65734
	1975	276500	20600	146100	66000
	Total		218000		517702

* Interpolated values.
Source: U.S. Bureau of the Census (1982).

Table 9. Intra-urban migration distances by race for Omaha, Nebraska (1978) and Kansas City, Missouri (1982).

Distance moved* (miles)	Omaha				Kansas City			
	white		black		white		black	
	# of movers	% of movers	# of movers	% of movers	# of movers	% of movers	# of movers	% of movers
0–1	27	18.6	54	35.8	50	13.0	138	22.8
1–2	36	24.9	56	37.1	52	13.5	78	20.2
2–3	26	17.9	16	10.6	51	10.7	73	18.9
3–4	17	11.7	14	9.2	38	9.9	46	11.9
4–5	11	7.6	2	1.4	44	11.5	34	8.8
5–6	10	6.9	6	3.9	25	6.5	27	7.0
6–7	5	3.5	1	0.7	26	6.8	16	4.1
7–8	6	4.2	2	1.3	20	5.2	9	2.3
8–9	3	2.1			18	4.7	4	1.0
9–10	2	1.4			26	6.8	4	1.0
10–11	2	1.4			7	1.8	3	0.8
11–12					9	2.3	2	0.5
12–13					8	2.1	0	0.0
13–14					5	1.3	2	0.5
14–15					4	1.0		
15–16					3	0.8		
16–17					2	0.5		
17–18					2	0.5		
18–19					1	0.3		
19–20					3	0.8		

* The actual distribution will reflect the absolute size of the city.
Source: Clark (1980) and unpublished data.

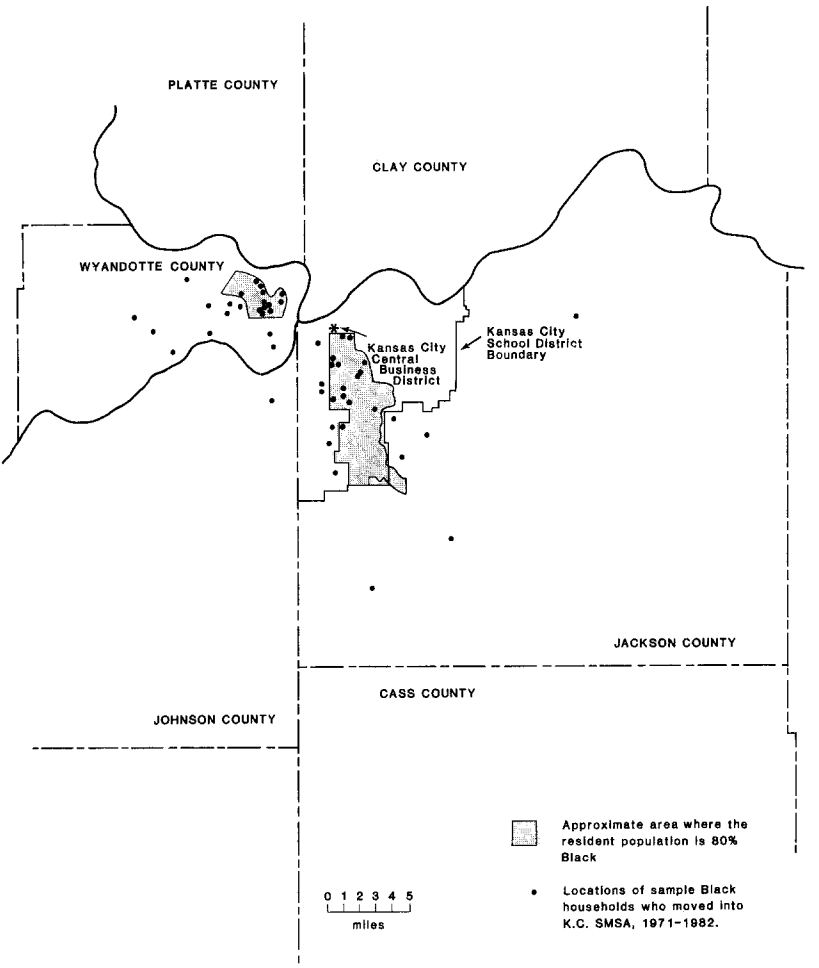

Fig. 1. Locations of new Black residents (1971–1982).

housing laws, it is unlikely that most or even many of these choices can be regarded simply as constrained relocations. Combined with preferences for evenly-divided neighborhoods, these choices may lead to black relocation patterns which involve choosing neighborhoods which are evenly divided, but the end result of the choice process is of course that these neighborhoods undergo a transition to mostly black[4].

The urban structure is the outcome of the mobility behavior of people. A voluminous literature on residential mobility has clearly established that people move for reasons related in part to the life cycle. As young adults mature, form families, have children, and increase their incomes, their housing needs change, and to satisfy those needs, they move (Table 10). This conceptualiza-

tion, originated by Rossi (1955) and refined by numerous other authors (Clark and Onaka, 1983), is at the heart of understanding and explaining the relocation of households within metropolitan areas.

While the many studies of reasons for moving do not distinguish the two

Table 10. Reasons for moving.

Study region	Speare *et al.* (1975) Rhode Island	McCarthy (1976) Brown County	Goodman (1978) US	Spain (1979) US
Move interval	1 year	5 years	1 year	1 year
Sample size	2140	2039	–	22564
Adjustment moves	50.9	63.9	54.0	52.1
Housing characteristics	45.0	49.6	45.0	41.1
Space	13.6	23.6	15.0	12.8
Quality design	9.4	–	12.0	10.6
Cost	4.7	6.5	7.0	7.1
Tenure change	17.3	19.5	11.0	10.6
Neighborhood characteristics	5.9	9.6	5.0	6.9
Neighborhood quality	–	–	–	4.9
Physical environment	–	–	–	0.7
Social composition	–	–	–	0.7
Public services	–	–	–	0.6
Accessibility	–	4.7	4.0	4.1
Workplace	–	–	4.0	3.2
Shopping, school	–	–	–	–
Family & friends	–	–	–	0.9
Other	–	–	–	–
Induced moves	34.5	26.8	21.0	30.2
Employment	4.4	–	–	4.4
Life-cycle change	30.1	–	21.0	25.9
Household formation (split)	–	–	9.0	10.9
Change in marital status	26.1	–	12.0	11.1
Change in household size	–	–	–	1.2
Other	4.0	–	–	2.7
Forced moves	10.5	9.3	5.0	5.2
Other moves	4.1	–	12.6	3.7
Total	100.0	100.0	100.0	100.1

Source: Clark and Onaka (1983). Adjustment moves reflect people's desire to bring their housing consumption into line with their housing needs and are more volitional than induced moves, which are created more directly by life-cycle changes. Forced moves include such factors as demolition and eviction.

kinds of motivations for moving – for leaving a particular house and for choosing another house (though such decisions are often inextricably linked) – most researchers agree that there is little evidence in either the local or national studies that schools are a central consideration in the continued circulation of populations within cities. Examining Spain's (1979) report or the summary of many studies (Clark and Onaka, 1983), it is clear that while schools can be an element for some choices, cost and quality of housing and to some extent the location of jobs are far more critical than schools. It may well be that in particular situations, especially where mandatory busing has been a critical element, schools do play a much larger role in the decision-making of individual households, but there is little evidence that schools generally are a critical element in the relocation behavior of households.

While the reason for a move is related to the life cycle, the actual choice of *where* to move is governed to a large extent by the information that individuals have about the urban area. And, the information that individuals possess is spatially biased, that is, households are more familiar with the areas in which they already live than areas at some distance from them. That familiarity, combined with a preference for things known, leads to spatially-proximate relocation behavior.

As a corollary of people's moving behavior, we must consider how they search for housing. How a household does its housing search is important in its choice of geographic area. Plainly, where a household searches has a direct influence on where it will move. The evidence is that housing searches are conducted within quite limited geographic areas. Households are much more likely to be aware of available dwelling units near their current residence than they are to be aware of housing at distances farther away (Huff, 1982). This is particularly true of low-income households, renters, and minorities, who rely on informal sources of information, especially friends and relatives (Cronin, 1982).

Goodman (1978) found that pre-move location was the most critical variable in determining locational choice and concluded that movers have a strong bias toward selecting nearby units. His survey of 1,500 households from 43 metropolitan areas in the mid-1960s showed that one-third of all intra-metropolitan moves were from one dwelling unit to another in the same neighborhood. Over two-thirds of the moves were less than five miles in distance. Among low-income households, non-white central city residents, and the elderly, the average distance of moves was found to be even lower than for the sample overall.

This finding, which has been well established in the economic, geographic, and sociological literature on moving behavior, was further confirmed in the Department of Housing and Urban Development's Housing Allowance and Housing Supply Experiments. The experiments attempted to establish what

would happen if cash payments were made to households in lieu of housing subsidies. The argument was that low-income housholds which received cash payments would perhaps be able to move to better neighborhoods and so alter existing patterns of concentration of low-income or minority households. Indeed, the question of whether or not there would be dispersal of these households with the supplementary funds was one of the critical questions of concern (Atkinson and Phipps, 1977). The study as reported in Holshouser (1976) found that black movers usually remained within black or transitional areas, and even when they did move to more integrated neighborhoods, they maintained their contacts in the neighborhoods of origin. Judging from these results it can be argued that the preference for living in black areas is extremely strong even when economic subsidies are provided. The results are consistent with other information that has been developed in this review about the importance of neighborhood attachment. They are in clear contradiction to the belief that subsidies will lead low-income families to relocate long distances to suburban areas.

While the actual relocation behavior of households is best described as an expression of social preference, there are elements of the urban context that are important in identifying the way in which the urban area grows. Cities have not developed on a homogeneous plane but, rather, in locations which have rivers and valleys, and along coasts and around lakes. As they have developed, there have been areas of industry and commerce. Urban development responds to these natural barriers and areas, yielding enduring and sometimes self-perpetuating patterns to which phrases like 'wrong side of the tracks' attest. Although they are certainly not determinant of the urban structure, they have shaped how cities have changed and grown over time. In some instances, the initial locations of minority areas near the downtown have been directly influenced by elements of the urban structure. To ignore these urban structural factors in trying to understand the particular spatial expressions of minority residential neighborhoods would be as shortsighted as ignoring them in trying to explain contemporary concentrations of Irish Catholics, Italians, Poles, and other groups in particular neighborhoods. Thus, the fact that the black population has grown in a consistent, coherent, and particular direction may well be related to significant geographic factors such as a major river or the associated industrial land use around major railroads, which has in turn influenced the direction of residential expansion.

The role of urban structure is often couched in terms of central city decline, inner city crime rates, and deteriorating housing – conditions cited as an explanation for white migration from central cities to suburbs. Frey (1979) shows that black and white movers have similar mobility rates but that the destination choice of black movers tends to be the central city rather than the suburb. While Goodman and Streitweiser (1982) interpret these low rates of

outmigration (or the retention of blacks in the central city) as an effect of actual or anticipated housing market discrimination, in fact it could also simply be that blacks favor (and therefore choose) to remain in the central city, in housing that is economically affordable, close to their jobs, near family and friends and present housing locations. In other words, instead of seeking housing at some distance, they seek that housing vacated by outmigrating whites rather than moving long distances to the suburbs.

In several studies of black relocation, Frey (1978, 1979, 1985) concludes that demographic processes will be unlikely to create metropolitan-wide integration. Even the complete elimination of racial discrimination in suburban entry (assuming that it exists, which Frey does) would fall short of achieving metropolitan-wide racial integration (Frey 1978).

Discrimination

In any discussion of discrimination, it is essential to be precise about who or what agent is discriminating against whom. We shall distinguish here between public or government discrimination, discrimination by publicly sanctioned or licensed bodies, and discrimination by individuals – private acts of discrimination. It is the first of these that has been the subject of most legislation. The Constitution bans governmental discrimination, and local statutes may as well. Legislation has also prohibited discrimination in housing by private individuals. The discussion of discrimination in this paper is concerned with equality of access to housing rather than with equality of access to employment.

In attempting to evaluate the difficult issue of the degree of discrimination, it is useful to begin by citing two recent survey studies which have attempted to measure, from interview questions, the extent of housing discrimination and housing segregation which affects black households. As part of the Pulaski County/North Little Rock desegregation case (Little Rock School District v. Pulaski County Special School District), a survey asked black respondents about the extent to which they suffered discrimination by government agencies. Only 3 percent of all black parents reported that they had experienced housing discrimination by government or government-regulated agencies (see Table 11). If government discrimination plays a meaningful role in producing the concentration of blacks in Little Rock, few blacks report having encountered it. Similarly, in a survey carried out in Kansas City, none of the 500 black respondents reported encountering government discrimination in their search for housing (Jenkins v. State of Missouri, et al., Case #85-1974WM, Tr. at 19563–64[5]. Clearly, these recent survey results are at least inconsistent with, and for some will call into question, assertions in the literature about the

extensive effect of government or government-sanctioned discrimination.

The comments in the literature often focus on the past use of racially restrictive covenants by state-regulated industries, especially realtors and mortgage bankers, including; redlining and racial steering; the use of restrictive zoning ordinances; and the provision and location of public housing. Other specific discrimination practices have also been mentioned. However, the attempts to measure the effects of discriminatory actions have been less than successful. Some authors have concluded (Taeuber, 1975) that the preponderance of the evidence is that these discriminatory forces account for residential patterns. But to what degree? And based on what evidence? Given the powerful evidence regarding the cumulative effect of economic status, preferences, and urban structure, and the additional evidence from two surveys that black households do not see themselves as having been discriminated against, it seems unrealistic to place much (if any?) weight on the government discrimination argument, especially given the evidence to the contrary reviewed above. That is not to say that there have not been private acts of discrimination, or individual experiences of discrimination. But if all or most real estate transactions were guided by discriminatory intent, people would report it in their experience more often than they do[6].

Racially restrictive covenants are most often cited as a major force influencing residential patterns, and on the one hand, it is possible that such covenants may have had an influence, particularly by indicating which areas blacks should not consider in their relocation behavior. But, on the other hand, the areas that had covenants have subsequently become black (Jenkins vs. State of Missouri, 1984). Moreover, it needs to be reitererated that enforcement of these covenants was ruled unconsitutional in 1948 by the U.S. Supreme Court (Shelley v. Kramer), and anecdotal evidence suggests that the covenants did

Table II. Discrimination in housing reported by blacks.

	Number of respondents	% Reporting private discrimination	% Reporting government public discrimination**
Kansas City (1983)	500	7.0	0
Little Rock (1984)	495	6.3	3.2

Sources: Kansas City: Jenkins v. State of Missouri *et al.* Case #85-1974WM Tr at 19460; Little Rock: Armor, D. (1984) Analysis of desegregation remedies for Pulaski County School Districts. Defendants' Exhibit #43.

* Percent responding 'yes' to the question 'In your opinion, have you ever been denied a house or apartment because of your race?' coded for private individuals.

** Percent responding 'yes' to the question 'In your opinion, have you ever been denied a house or apartment because of your race?' coded for public or publicly-sanctioned bodies and individuals.

not have any significant impacts beyond the 1940s (Jenkins v. State of Missouri, 1984).

In analyses of the discriminatory effects of mortgage lending, Birnbaum and Wetson (1974) used data on economic assets and income in a multiple regression equation to show that while race was a significant influence in mortgage lending, its importance was much reduced when assets and income were entered into the regression model. These results are in line with the general argument that Wilson (1978: 56) proposes, *viz.*, that the economic position of minorities is 'more important than race in determining black life chances in the modern industrial period.'

In an analysis of mortgage lending and rates, a very thorough attempt to investigate, via survey data, the effect of racial discrimination yielded no marginal effects of discrimination. When all of the economic factors (income, assets, house purchase price, and loan to value ratio) were included – that is, when all the economic variables were controlled – the disposition of loans (i.e., the effect of discrimination) did not vary significantly by race (Listokin and Casey, 1980). An alternative model showed only slight race effects – 'that at best, whites' acceptance rate for mortgage loans is about 6 percent higher than the non-white acceptance ratio' (Listokin and Casey, 1980: 139). The study suggests that while there are discriminatory effects, they are minor even when the only variables controlled are economic. And, social preferences and urban structure were not examined for their role in the explanation of housing patterns. Thus, for each empirical study which argues the existence of government discrimination, other studies emphasize the absence of it.

Courant and Yinger (1977) and Yinger (1976, 1978) have attempted to provide theoretical formulations which account for discrimination. They argue that given racial prejudice, any equilibrium in the housing market is unstable *unless* supported by exclusionary practices by whites. However, Smith (1982) shows that, in light of preferences regarding the race of one's neighbors, the urban housing market will continue to promote separation even without exclusion.

In an attempt to estimate the extent of discrimination, the Department of Housing and Urban Development (HUD) commissioned an audit study of the role of discrimination in housing selection (Weink *et al.*, 1979). It was designed to evaluate the level of discrimination in each of forty metropolitan areas. In addition, aggregate results were reported for the nation as a whole. In an audit study, matched auditors or 'testers', white and black, pose as real estate purchasers or renters and are sent to individual real estate offices. Their treatment on a wide range of variables is measured on a survey instrument after the visit. (Detailed instructions are given to the auditors on how to behave in different situations.) Among the issues examined were the number of units shown to the auditors, the way in which the auditor was treated at the

visit, the length of the interview, and the kinds of information collected (by the realtor) about income, occupation, and other characteristics.

The study reports three possible outcomes: (a) no difference (in treatment), (b) white favored, or (c) black favored. The difference between white favored and black favored was listed as a measure of net discriminatory treatment. The study reports that overall, blacks encountered discrimination about 15 percent more often than whites. It concludes that a 15 percent level of discrimination would have considerable impact on a black household's housing search.

Unfortunately, the study is only reliable at the national level. The number of office contacts in individual cities varied between 15 and 119 contacts for rental housing, and for the sales market, contacts were generally in the range of 30–50. With such a small number of individual contacts, it is difficult to be numerically precise about individual metropolitan areas; indeed, as the study itself notes, the range of possible responses could vary as much as thirty percentage points around the reported value. Thus, a reported discrimination of 30 percent means 'between 0 and 60'. And, 15 percent means between −15 and +45; net discrimination against whites is thus possible. Depending upon one's viewpoint, the study can be read as either relatively negative or positive. That is, for many of the variables used to measure discrimination (for example, measures of courtesy and service) the 'no difference' between blacks and whites was very high, suggesting there is *not a pervasive* climate of discrimination.

The aim of the study was to match the two individuals sent to real estate offices such that any difference in treatment would be because of race, but in fact, there are a number of difficulties with this approach. First, it is not clear that the two individuals were greeted by exactly the same respondent at the real estate office, and different treatment may result from contacts with different persons; the *failure to control* for contact with the same person is a potential source of error. Second, the very small number of the audits – when in fact there are thousands of contacts a month (see Table 8) – further emphasizes doubts about the validity of the samples. There are also a number of general reliability issues. There is a problem with the time between the visit and the recording of the data. The form is particularly detailed with a great deal of information to be recorded. Obviously, it can not be filled out at the time of the interview; it has to be done completely from recall, and recall may be unreliable. More importantly, there is the assumption that realtors do not distinguish between a test situation (an auditor or tester) and a real situation. In fact, the manual recognizes this issue and gives appropriate responses when an auditor 'is discovered'. Finally, there is the problem that many auditors went alone, when clearly in many instances couples would be together for the important decision related to housing choice. The absence of a spouse might well raise questions about buyer commitment and a less serious involvement on the part of the realtor.

The above review suggests that audit studies can give only the broadest result. That is, very high percentages would be indicative of significant discrimination, but percentages in the ranges reported are hard to interpret given the limitations of such studies. There is no doubt that private discrimination prior to the legislation of the 1960s played a role in influencing housing patterns. The issue is its *present* force or lingering effects, or both, on current residential patterns. This analysis suggests that the force or effect cannot be very noticeable. Broad brush comments such as Taeuber's (1975) and Orfield's (1981b) must be tempered by the weight of the evidence reviewed above.

Concluding comments

The fairest reading of the social science evidence is that a multitude of causes underlie contemporary patterns of racial residential separation in U.S. metropolitan areas. There is strong evidence from simulation analyses that provide reasonable quantitative assessments of the relative role of the various forces which cause racial residential separation. Even though these quantitative assessments will be refined in the future, for now the most secure principle is that there is no single dominant causative factor underlying the generation and maintenance of residential separation. It is certainly a principle in all research, and particularly in research on complex systems, that a number of interrelated and interlocking forces generate those patterns. Clearly, the evidence on economic status factors, social preferences, urban structure, and mobility patterns suggests that any attribution of racial separation to discrimination as a single cause is simplistic and unwarranted. Moreover, in general such forces lie beyond the direct control of government or government-authorized bodies. Demographic processes tend to be stronger than social intervention, and it is demographic processes than we must address if we are to understand change in social patterns in the future (Morrison, 1978).

At the same time, it is clear that here has been discrimination in the past, and there may be continuing prejudice (as distinct from discrimination) in current urban life. However, the specific instances of discrimination by neighbors, realtors, and banks, while clearly documented in individual instances, do not appear to be part of a massive collusion to deny opportunities to minorities. Whether this was true thirty years ago is an open question, but it certainly does not manifest itself in current urban markets in the 1980s. Assertions that discrimination is a major factor causing the segregation of housing patterns in metropolitan areas must be treated as unproven until further research is conducted. The concern with housing patterns, as evidenced in Orfield's recent discussion (1981a), is a discussion of a *strategy* for integration. He argues for significant intervention in housing markets by governments in order to

combat segregated housing patterns and to establish integrated neighborhoods. For example, he argues for strategies varying from funding community action groups, to scattered site housing, subsidizing housing in private developments, and housing counseling. However, it is difficult to see that such a fundamental change in the way in which government operates will be accepted by the American people, if indeed it could meet the constitutional tests. As Schnare (1977: 28) has so aptly put it:

> Beyond insisting on equal opportunity, does government have a legitimate role to play in influencing the location decision of households? If so, how could government intervene in the housing market for the benefit of the general public without conflicting with what many individual citizens perceive as their right to choose their own neighbors and neighborhoods? Even if affirmative action could overcome this apparent contradiction with the freedom of choice principle, what forms could it take to become feasible and effective?

Lest these findings be seen as totally negative, it is clear that we are on a course of achieving racial equality in our society. It is not likely to happen with particular social interventions or with particular public programs. It will only occur with the achievement of economic equality. There is some evidence that the incomes of blacks in relation to the incomes of whites has improved (Farley, 1984) and that there has been the emergence of a black middle class to whom 'income gains have been real and substantial' (Smith and Welch, 1986: 19).

At least as important as the black/white segregation issue that has dominated the social science literature in recent years is the increasing multi-ethnic structure of the U.S. population as it moves into the late 20th century, and its implications for the composition of school populations and residential separation in general. An overview of the trends and causes of urban segregation raises difficult but compelling questions. For the present we must concede that there are multiple reasons for residential patterns, and these causes – which include economic status, social preferences, urban structure and discrimination – require further unbiased evaluation in concert.

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Notes

1. Although the indices are described as measures of segregation, they are more properly identified as measures of separation. The term segregation often has connotations of enforced separation.
2. The formula for the dissimilarity index (Duncan and Duncan, 1955) is given by:

$$D = \frac{1}{2}\sum_{i=1}^{n}\left(\frac{w_i}{W_T} - \frac{b_i}{B_T}\right)$$

and the relative exposure index (Schnare, 1977) is given by:

$$E = 1 - \frac{Wx}{\bar{B}}$$

and

$$Wx = \frac{1}{W_T}\sum_{i=1}^{n} w_i \frac{b_i}{T_i}$$

where $\bar{B}$ = Proportion black in the city
W_T = Total whites in the city
B_T = Total blacks in the city
w_i = Whites in a tract (sub-unit) i
b_i = blacks in a tract (sub-unit) i
T_i = Total population in a tract (sub-unit) i

3. Personal communication from David J. Armor (April, 1984).
4. An anonymous referee suggested that there are important differences between preferences for 'neighbors' and preferences for 'neighbor*hoods*.' In situations where white neighborhoods *may* have better quality housing or services, preference for mixed or white neighborhoods on the part of blacks may be as much an expression for environmental quality as racial mix. This is clearly an interesting question, but will remain a conjecture until we can design surveys to examine this specific point. However, that blacks do not prefer *all-white* neighborhoods emphasizes that there is clearly a racial composition element to the expression of these preferences.
5. Both samples were obtained through random-digit dialed telephone surveys. Samples were drawn drom Pulaski County, Arkansas and Kansas City, Missouri. The Kansas City survey was designed and carried out by Dr. William Sampson of Northwestern University.
6. There is a side issue which is more difficult to grasp – the issue of intent. There have been instances of clearly discriminatory redlining (denying loans to low-income and black households). That is not the same as saying the intent was necessarily racial. Purely economic motives to protect capital investment can account for such intent.

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