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RACIAL SEGREGATION: THE IMPACT OF  
MONTHLY CONTRACT RENT AND  
FAMILY INCOME

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ABSTRACT

The socioeconomic model of racial segregation is evaluated in terms of the impact of monthly contract rent and family income on the housing patterns of blacks and nonblacks. On the basis of 1970 census tract data for four metropolitan areas--Newark, Detroit, Dallas and San Francisco-Oakland--the analysis is carried out using Taeuber's index of dissimilarity and the method of indirect standardization. The results indicate that the socioeconomic model helps to explain racial segregation when rent differences between blacks and nonblacks are analyzed as the cause. Analysis by family income, however, indicates that for many black families the problem is not that they lack the income to rent higher priced apartments outside minority neighborhoods. It is suggested that the apartment rental industry may have continued to guide many black families into minority or changing neighborhoods. The article concludes with a critique of Taeuber's methods. His approach is limited by its inability to efficiently examine the simultaneous effects of several important independent variables.

It is common knowledge that black-nonblack segregation is universally high and persistent in American metropolitan areas (Taeuber and Taeuber, 1965; Kantrowitz, 1973; Hermalin and Farley, 1973). There are a number of research questions as to the major factors perpetuating this residential pattern. In dealing with these questions, two models--socioeconomic and racial--have been proposed as alternative ways of explaining racial segregation (see Taeuber and Taeuber, 1964: 378; Darroch and Marston, 1971; Roof, VanValey and Spain, 1976; Guest and Weed, 1976).

The intent of this research is to present empirical data which shows that the socioeconomic model helps to explain racial segregation when rent differences between blacks and nonblacks are analyzed as the

cause. The rationale underlying this model is that, as a racial group gains in educational and occupational status, it increases its income and, thus, its purchasing power in the urban rental housing market. The gain in purchasing power will in turn be translated into comparably greater levels of residential assimilation or integration with the nonblack population (see Taeuber, 1968).

To the extent that racial segregation is not attributable to differences in socioeconomic status between the black aggregate and the nonblack majority, it has often been accounted for by more direct reference to the non-socioeconomic differences between these racial groups (see Hermalin and Farley, 1973: 601-605). This alternative model for explaining housing patterns assumes that all sources of black-nonblack segregation, which remain unexplained by the operation of socioeconomic factors, can be subsumed under the notion of racial status.

#### Data and Method

The analysis is carried out using 1970 census tract data for four metropolitan areas--Newark, Detroit, Dallas and San Francisco-Oakland. Four criteria were employed in the selection of these metropolitan areas. First, each of the four geographical regions of the United States--Northeast, North Central, South and West--had to be represented. Second, each SMSA had to have a population of 1,000,000 or more in 1970. This was the case because it was in the larger metropolitan areas that growth of the black aggregate was occurring most rapidly. Third, each metropolitan area had to have at least 100,000 blacks. Fourth, the black aggregate had to be at least 10% of the total population in each metropolitan area.

The black and nonblack renter aggregates are defined as they appear in the monthly contract rent tabulations of the Fourth Count Housing Summary Tapes. Because there are nonblacks who are not whites, e.g., orientals and American Indians, not all of the nonblack aggregate are part of the white majority.

The index of dissimilarity (D index) and the method of indirect standardization are used to measure the extent to which the black aggregate is segregated from the nonblack majority on the basis of socioeconomic status (see Taeuber and Taeuber, 1965: 195-245). By means of indirect standardization, it is possible to generate the number of black and nonblack heads of household expected to be found in each tract solely on the basis of differences in monthly contract rent. After generating this expected distribution, it is possible to compare it with the actual distribution of blacks and nonblacks by monthly contract rent.

This is done, first, by computing a D index for both the actual and expected distributions and, second, by dividing the expected segregation index by the actual index (see Taeuber and Taeuber 1965: 81-86). Such a ratio can be interpreted as the amount of racial segregation accounted for by monthly contract rent alone.

#### Results and Discussion

Socioeconomic status is said to be one of the causes of racial segregation to the extent that monthly contract rent is able to account for black-nonblack housing patterns. The ratios of expected to actual indexes reported in Table 1 indicate the importance of the socioeconomic model. In two northern metropolitan areas, black-nonblack renters were segregated more by monthly contract rent than they were by the residual set of factors subsumed under the heading of racial background.<sup>1</sup> Even in Dallas and San Francisco-Oakland, monthly contract rent accounted for a high percentage of racial segregation--39.1 percent in Dallas and 40.1 percent in San Francisco-Oakland.<sup>2</sup>

Table 1. Actual and Expected Indexes of Residential Segregation Between Blacks and Nonblacks. Based on Indirect Standardization for Monthly Contract Rent: Ratios (in %) of Expected to Actual Indexes, in Four SMSAs, 1970.

	(1)	(2)	(3)
SMSA	Actual Index (A)	Expected Index Based on Monthly Contract Rent (E)	% E/A
Newark	72.9	55.9	76.7
Detroit	82.8	49.8	60.1
Dallas	90.6	35.4	39.1
San Francisco-Oakland	75.7	30.4	40.1

#### SOURCES

United States Bureau of the Census, Fourth Count Housing Summary Tapes. The indexes are computed on the basis of data contained in tabulation item 54 as described in the 1970 Census Users' Guide (1970, 11: Housing-51).

These ratios give some support to the socioeconomic model for explaining racial segregation. This model suggests that the segregation of racial groups is largely attributable to two factors. First, there are major differences in the socioeconomic positions of black and non-black renters. Second, the various socioeconomic aggregates themselves are dissimilarly distributed over the residential areas of the city.

The significance of socioeconomic status lies in the fact that there is a strong demand for accessibility to neighbors and neighborhoods regarded as providing positive externalities and an equally strong demand for physical distance from neighbors and neighborhoods regarded as providing negative externalities. From the point of view of satisfying consumer demand for positive externalities, the multi-unit housing market constructs rental units outside the core of the central city or in suburban tracts close to outlying job opportunities and natural amenities. These units are located away from the dirt, noise, odors, physical safety hazards, crowding and traffic congestion of the central business district and zone of transition.

Because of a host of negative externalities associated with many apartment buildings in central city cores, there are many renters who live in the central city only because they lack the funds to rent apartments in higher amenity areas. There are, of course, some exceptions to this generalization, especially with regard to elderly members of European ethnic groups living in older tenements (see Gans, 1962). Many of them choose to remain in transitional or deteriorated neighborhoods because of their cultural and sentimental ties to the area rather than because of lack of funds to move elsewhere. Also, newly married couples, single professional people and students often choose to live in these neighborhoods, especially if there are colleges, universities, professional schools, hospitals or other institutions in the vicinity.

Even though there are exceptions, it is still true to say that renters paying lower monthly contract rents are concentrated and segregated in public and private apartments located in central city ghettos. Monthly contract rent explains a high percentage of black-nonblack segregation among these renters and, thus, gives credence to the socioeconomic model for explaining racial segregation.

In examining the extent to which racial segregation is explained by differential socioeconomic status, it becomes clear that monthly contract rent is not always a valid indicator of socioeconomic status. That is, the rental cost of a dwelling unit is not necessarily an accurate measure of the socioeconomic status of the occupants. For many middle class blacks, the problem may not be that they lack the

family income to rent higher priced apartments outside minority neighborhoods (see VonFurstenberg et. al., 1974; Yinger, 1974). Rather it may be a case of the apartment rental industry continuing to guide them into minority or changing neighborhoods while keeping them out of white neighborhoods (see Cox, 1973: 20; Denton, 1970).

To test for this possibility, actual and expected indexes of residential segregation between blacks and nonblacks are computed on the basis of indirect standardization for family income. If differential family income accounts for a much smaller percentage of racial segregation than monthly contract rent, serious questions are raised regarding the efficacy of the socioeconomic model.

The ratios of expected to actual indexes reported in Table 2 indicate that only 14.9 to 21.4% of racial segregation is accounted for by differential family income. This suggests that the explanatory power of monthly contract rent is based more on a lack of access to higher priced rental units than on inability to pay. Denton (1970) presents evidence which supports this conclusion. He found that it was most difficult for minorities to rent housing outside established minority areas, less difficult to buy older houses and least difficult to buy new housing in suburban tracts.

Table 2. Actual and Expected Indexes of Residential Segregation between Blacks and Nonblacks. Based on Indirect Standardization for Family Income: Ratios (in %) of Expected to Actual Indexes in Four SMSAs, 1970

SMSA	(1) Actual Index (A)	(2) Expected Index Based on Family Income (E)	(3) % E/A
Newark	79.8	17.1	21.4
Detroit	89.6	15.6	17.4
Dallas	88.3	18.5	20.9
San Francisco- Oakland	78.7	11.7	14.9

SOURCES (See next page).

#### SOURCES

United States Bureau of the Census, Fourth Count Population Summary Tapes. The indexes are computed on the basis of data contained in tabulation item 75 as described in the 1970 Census Users' Guide (1970, II: Population-48).

In an attempt to explain this exclusion of blacks from higher priced rental units, Foley (1974: 97-98) states that apartment owners and managers function as gatekeepers to their apartment buildings and immediate neighborhoods. Besides wishing to screen their own prospective neighbors, they may seek to protect what they take to be the interests of present or prospective nonblack tenants. They may also believe that minority households, once admitted, will stimulate pressures for further minority tenancy. Regardless of their motivation, there is evidence that many landlords use a number of ploys to exclude blacks from their multiple-dwelling units.

#### Conclusion

This research presented evidence indicating that the socioeconomic model of racial segregation works well when rent differences between blacks and nonblacks are analyzed as the cause. Differential family income, however, accounts for a much smaller percentage of racial segregation than monthly contract rent. The author suggests there may be an informal control system among landlords limiting the access of blacks to higher status neighborhoods or communities. Such an interpretation sheds light on why many middle class black families live in minority or changing neighborhoods even though they have enough income to rent higher priced apartments outside these neighborhoods.

A major conclusion of the research is that the D index is a useful measure of the extent of segregation between blacks and nonblacks. By using this index as the basis of indirect standardization, it is possible to stipulate some of the conditions under which residential segregation occurs. These conditions are relatively enduring characteristics of individuals which are not dependent upon circumstances or interaction for their activation (see Kennedy, 1973; Ford and DeJong, 1970: 7-14).

The D Index and the method of indirect standardization make it possible to measure the amount of racial segregation accounted for by monthly contract rent alone. It is not sufficient, however, to standardize a housing distribution on the basis of monthly contract rent, and then compare segregation indexes computed on the basis of both the standardized and actual distributions (see Jakubs, 1977;

O'Connell, 1977; Steinnes, 1977; Zelder, 1977). Although this procedure shifts a socioeconomic variable from the "catch-all" residual into the "accounted for" realm, it does so by shifting only one variable at a time. The residual of residential segregation, which remains after standardizing for monthly contract rent, for example, is not totally explained by racial background.

The literature suggests that other demographic factors, including generation (Lieberson, 1973), age of household head (Morgan, 1965), and family structure (Edwards, 1972), should also be taken into account as direct or indirect determinants of housing patterns. Other socioeconomic variables such as family income, occupation and education are also possible determinants (see Erbe, 1975).

Thus, the principal difficulty with the Taeuber approach to the explanation of racial segregation is that it controls other variables only one at a time. As far as it goes, it is helpful in identifying general causal factors. There is this inability, however, to efficiently examine the simultaneous effects of other important social correlates of residential segregation. It is this inability which places limitations on the interpretation of any segregation index value or index ratio. Further research, therefore, is called for which will permit the investigation of the independent and simultaneous influences of many variables upon residential segregation, and which provides a measure of statistical completeness.

#### FOOTNOTES

1. It is important to keep in mind that the higher ratios in the cases of Newark and Detroit may be partially explained by the fact that both of these metropolitan areas have a high proportion of blacks in their central cities. In such circumstances, partialing the nonblack but nonwhite populations out of the white aggregate is an important task for future research in order to more accurately measure racial segregation and to determine the relative contribution of socioeconomic variables as opposed to racial status.
2. The ratios may be artificially lower for San Francisco-Oakland and Dallas because Mexican American and Oriental populations are included in the nonblack aggregate.

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