

## PATTERNS OF NEGRO-WHITE RESIDENTIAL SEGREGATION

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Racial residential segregation is a component of both the racial and urban crises that dominate America's current list of domestic social problems. A large literature considers residential segregation as a problem, though the analyses and prescriptions vary according to whether the perspective adopted is basically urban or basically racial. A smaller but still substantial literature takes a more scholarly (though not necessarily less passionate) approach, and again one would differentiate an urban from a race perspective.

To the student of the city, racial residential segregation is one example of the residential segregation that occurs among households of differing income, occupational status, life style, size, composition, places of work and other traits. All types of residential segregation, in turn, are but one aspect of the more general subject matter of location theory, the distribution of activities in space.

To the student of race relations, residential segregation is allied with occupational segregation and a whole gamut of racial aspects of the system of social stratification in the United States.

In accord with the demographic focus of this conference this paper will review quantitative empirical studies of racial residential segregation that have arisen out of the urban sociology perspective.<sup>1</sup>

A tour of any large city in the United States reveals some neighborhoods inhabited mainly by blacks and others where only whites are in evidence. Although most discussion of segregation treats it as something that happens to blacks, at this observational level segregation is a relation between the two groups: it happens to both. Segregation

is simply variance among neighborhoods in racial composition. If every neighborhood had black and white residents in the same proportion they compose the total urban area, that would be a situation of no segregation.

For quantification of the degree of racial residential segregation, it is necessary to know only the racial composition of every neighborhood. Various specific measures have been proposed for indexing the heterogeneity in a city's neighborhood racial composition. No single measure is best for all purposes, but for an assessment of segregation levels and trends among a large set of United States cities the index of dissimilarity is most useful.

The index was used to compile an extensive set of segregation indices. Indices were calculated from the "Block Bulletins" of the 1940, 1950 and 1960 Censuses of Housing. City blocks are the smallest "neighborhood" for which extensive data on racial composition are available. The index ranges from a low of zero, in areas of no segregation, to 100 if every block is either all nonwhite or all white. Specific values between zero and 100 specify the percentage of the population of either race that would have to move from one block to another to bring its residential distribution in line with that of the other race.<sup>2</sup>

Systematic study of the block-by-block patterns of residential segregation reveals little difference among cities. A high degree of racial residential segregation is universal in American cities. Whether a city is a metropolitan center or a suburb; whether it is in the North or South; whether the Negro population is large or small—in every case, white and Negro households are highly segregated from each other.<sup>3</sup>

For 109 cities for which segregation index values were calculated for all three census years, the averages for 1940, 1950 and 1960 were 85, 87 and 86 (Table 1). A number of cities experienced relatively large changes, but the most striking result is the stability of the system. Racial residential segregation is not unique to Chicago or those cities with nationally known ghettos, nor is it largely a post World War II result of rapid Negro urbanization. It is a pervasive and tenacious fact of American urban life.

It is well known that the perspective of the observer influences his observation. The omnipresence of racial discrimination in society is appalling, so the author's writings emphasize the pervasiveness of residential segregation, its high degree in every large city. Yet the indices are not 100. The residential distributions of whites and Negroes overlap. There is considerable racial mixture. The results of a recent

National Opinion Research Center Study of integrated neighborhoods are not as surprising upon reflection as upon first reading: "Integrated neighborhoods are much more common than most Americans think they are. We estimate that 36,000,000 Americans in 11,000,000 households live in integrated neighborhoods. This is 19 per cent of the population."<sup>4</sup> The definition of an "integrated neighborhood" as one into which both whites and Negroes can and are moving is interesting, but misleadingly broad. The vast majority of residents of integrated neighborhoods as thus defined are whites living in neighborhoods in which whites compose more than 95 per cent of the population. The contrast with previous data is one of tone and emphasis more than substance.

The National Opinion Research Center study will be a unique and vital supplement to the kinds of data previously available, especially the extensive data on the characteristics of integrated and segregated neighborhoods and the evidence they provide into the workings of the housing market. These supplement and amplify the kinds of analysis reported in "The Process of Neighborhood Change," in *NEGROES IN CITIES*. These more complex analyses are less easy to summarize and exclaim over than are the segregation indices or the numerical estimates of integrated neighborhoods, but they contain the guts of each analysis and deserve close attention.

After examining the indices for the first level "gee whiz" results—gee whiz, look how high these indices are; gee whiz, look how much less than 100 they are; gee whiz, look how (low, high, normal) Chicago (Atlanta, Savannah, Dubuque) is—the next step is to look for patterns. A diligent researcher can always discern patterns in data, but the meaning of the patterns is often murky. The author has devoted much effort to arraying segregation indices according to city characteristics such as population size, percentage Negro, region and functional type. Other researchers have included the indices in their analyses. As yet, no pattern is really interesting, in the sense that it is very definite and also sensible or enlightening.

To illustrate, consider regional differences in segregation indices (Table 1). Using 1960 indices, cities in the South have the highest average score, the average for North Central cities is nearly as high and cities in the Northeast and West score lowest. By contrast with the 1960 regional pattern, the 1940 figures show the North Central region to be the distinctively highly segregated one, with only small differences among the means for the other regions. This problem

TABLE I. INDICES OF RESIDENTIAL SEGREGATION, 109 CITIES, 1940, 1950, 1960

Region	Number of Cities	Change				
		1940	1950	1960	1940 to 1950	1950 to 1960
United States	109	85.2 (5.8)	87.3 (5.5)	86.1 (7.6)	2.1 (2.8)	-1.2 (4.5)
South	45	84.9 (6.7)	88.5 (5.3)	90.7 (4.7)	3.6 (3.0)	2.2 (3.0)
Northeast	25	83.2 (4.5)	83.6 (5.1)	78.9 (6.1)	0.4 (1.6)	-4.7 (3.6)
North Central	29	88.4 (4.7)	89.9 (4.0)	88.4 (4.2)	1.5 (2.2)	-1.5 (2.6)
West	10	82.7 (2.8)	82.9 (3.1)	76.4 (6.8)	0.2 (1.5)	-6.5 (4.0)

Note: Standard deviations are given in parentheses.

Source: Taeuber, K. E. and Taeuber, A. F., *NEGROES IN CITIES: RESIDENTIAL SEGREGATION AND NEIGHBORHOOD CHANGE*, Chicago, Aldine Publishing Company, 1965, Table 5, p. 44.

of changing patterns affects all efforts to interpret patterns observed at a single point in time. The value for a given city at a given date is a function primarily of how the value has been changing through the years. The coefficient of variation in segregation indexes is quite small; the coefficient of variation in decennial changes in indexes is quite large. It is in the changes, therefore, that interesting patterns might be found.

The first stage of research on changes was disappointing. Data had been collected for only one time period, 1940 to 1950. Little new residential construction was seen in the early part of the decade (and in the preceding decade), and the housing market was still quite tight at the time of the 1950 census. Large-scale Negro (and white) population growth in many cities was accommodated by increased crowding of people into existing housing units; a real expansion of ghettos was generally less rapid than Negro population increase. The market appears to have been too tight to allow any significant alterations in existing racial patterns.

As the 1960 data became available, one city at a time, indices were calculated and recorded on a list that happened to be arranged regionally. A pattern quickly became evident and persisted for all 109 cities. The 1950 to 1960 changes once again were positive for most southern cities (78 per cent of them), but instead of displaying a slightly attenuated version of the same pattern, the northern and western cities (all but 16 per cent) showed declines.

Here was a pattern, obviously significant, but a bit too rich in interpretive possibilities. The South differs from the rest of the nation in many seemingly relevant respects. One could attribute the empirical results to regional variation in historic experiences with slavery, in prejudice, in economic levels, in response to court-ordered school desegregation and on and on. Regional differences are so grossly overdetermined that the staff hesitated to begin interpreting them.

To avoid a speculative verbal foray into the meaning of regions, the study veered onto an empirical tack. Changes in segregation might be related to other changes occurring in the cities. Several seemingly relevant types of change could be measured—rate of population growth, white and Negro, rate of suburbanization, rate of change in Negro economic status (and hence, presumably, in competitive position in the housing market) and rate of construction of new housing. Measures of each of these rates of change were compiled for 69 cities for each of the two decades and the changes in segregation scores were regressed on them. In each decade the regression equation accounted for a substantial share of the intercity variance in segregation changes—33 per cent in 1940–1950 and 52 per cent for 1950–1960. (Although the number of cases was small, these large coefficients of determination were surprising; the few independent variables that could be quantified do not represent a very large portion of the universe of explanatory variables and idiosyncratic factors that have been delimited in the literature.)

The two regression equations were quite different. For 1940–1950, the measure of new construction carried the heaviest weight. The tightness of the housing market in the 1940's has been noted. The general occurrence of small increases in segregation probably arose from an overcrowding within existing housing and a slowness in the rate at which housing turned from white to Negro occupancy even in the face of rapid Negro population growth. The regression result led to a further observation. "In some cities, particularly smaller and more recently settled Southern cities that still had vacant land available for residential development, there was considerable new construction in the late 1940's. Virtually all of it was occupied on a segregated basis. These developments account for the large increases in the segregation indexes of the South."<sup>5</sup>

The regression equation for segregation changes 1950–1960 allocated little weight to new construction, but emphasized Negro population increase and Negro occupational gains (both being

conducive to decreases in segregation). During the 1950's the central cities were substantially uncrowded both in terms of persons per dwelling and of dwelling units per acre in the most densely settled neighborhoods. In this expanding and loosening housing market, Negro residential areas expanded greatly. In the process some degree of residential desegregation occurred. This was most pronounced in cities with rapidly growing Negro populations and in those in which the Negro populations were gaining most rapidly in occupational status (and presumably in ability to compete financially for a greater share of the housing stock).

The variance in segregation changes that was not explained by the regression equations is not associated with region. This was one of the more pleasing findings, given the reluctance to use "region" as an explanatory variable. The interpretation given the regression results is speculative, inspired by the data. But allocation of the pronounced regional differences in segregation trends to regional differences in a set of specific independent variables is an empirical accomplishment regardless of the merits of interpretive speculation.

Addition of another decade's experience to the segregation data series must wait until publication of 1970 Census data. In the meantime only limited data are available. An examination was made of the experience of 13 cities for which necessary information was available from mid-decade special censuses.<sup>6</sup> The mid-decade values of the independent variables included in the regression equations were not available for the cities. Thus, the 1950-1960 equation could not be applied to these cities to obtain an expected mid-decade value. However, it was believed that slight decreases in the North and slight increases in the South might be continued. In fact, six of the eight northern and western cities and all five southern cities had higher indexes at the mid-decade census. The sample is small and nonrandom, but "there is no evidence in these data of an acceleration or even continuation of the trend toward decreasing segregation observed for northern cities from 1950-60."<sup>7</sup>

Prediction is often postulated as a goal of analysis. What are the 1970 results expected to show? The 1960's have been a decade of considerable housing construction (though not at rates deemed necessary for adequate stock replacement) and of continued uncrowding of the oldest and densest central city neighborhoods. Various indicators show considerable advances for Negroes as well as whites in educational and occupational levels and in economic status. Together with

the general gains of the civil rights movement, these trends should lead to more of what happened during the 1950's. But the mid-decade results do not seem to justify such a prediction. Journalists and knowledgeable observers who are not often attuned to detecting small quantitative changes suggest that all the housing laws and court decisions have had little impact on housing patterns. As a demographer privy to the hindsight of a long history of attempted forecasts and projections, one is naturally cautious. As a scholar aware of how inexact are the models of social process and how lacking are trend data, one is similarly cautious. One cannot with confidence predict any remarkable patterns in the 1960-1970 segregation index changes.

In addition to the index of dissimilarity, two other indices have been used to compile trend series.<sup>8</sup> Each uses an index that confounds segregation (as it has been defined here) with changes in the Negro percentage. This and related methodologic issues have been discussed elsewhere.<sup>9</sup> That is not to say that the index of dissimilarity is the only virtuous measure. Perhaps computer methods applied to the more detailed geographic specification of residences obtainable from 1970 Census data will permit sensible measures that are less bound to an arbitrary set of areas ("neighborhoods"). But comparisons among cities are complicated by use of one of the confounded indices.

The concern with segregation indices arose from a wish to assess and "explain" intercity variation. This was also the intent of the Cowgill and Bell and Willis studies. For a different task the relative merits of various indices might be different. Concern with what has been called "the desegregation problem" and "the segregation problem" may foster interest in segregation measures deliberately confounding the dissimilarity type of measure with the Negro percentage. It is still preferable that analyses not use a confounded index unless this would do violence to a well-developed theoretical framework.

Such a framework does not yet exist. Discussions of the consequences of residential segregation do not adequately distinguish the effects of segregation, as defined by a dissimilarity index, from the effects of size and percentage of Negro population, nor do they clarify the expected consequences of concentration in massive ghettos rather than in a series of smaller pockets. In a recent brief speculative encounter with these issues, the argument that "maintenance of the ghetto, at least in the short run, will prove beneficial"<sup>10</sup> was labeled a myth. But the total absence of careful thought and measurement precludes discussion of the consequences of residential segregation.

This is obviously true with respect to consequences at the community level—no appropriate intercommunity study has been done. But the same conclusion applies in a fundamental sense to consequences at other levels, such as for individuals. That consequences exist to “growing up black” in this country is plain, but that these vary according to the pattern or degree of residential segregation in the community in which an individual grows up has not been established.

Myrdal's delineation of the causes of residential segregation into choice, poverty and discrimination has been followed by most subsequent observers. The evidence is clear that Negroes dislike poor housing, dislike the kinds of ghettos in which they live and dislike restrictions in their choice of housing. The black separatism ideology and a continuing social setting in which many Negroes prefer to confine much of their social life to Negro groups give much room for disagreement as to how much residential segregation would occur in the absence of economic or discriminatory restrictions on Negro housing choice. Whether that segregation would be greater or less than that of Catholics or Jews from Protestants, or of various prosperous ethnic groups from one another, is unknown. In the face of economic and discriminatory restrictions, the question is sufficiently hypothetical as to be unanswerable with any precision. But it is clear that racial residential segregation is far greater in degree than any of these other types.<sup>11</sup>

Comparison of Negro residential segregation with that of other racial, ethnic or nationality groups is an obvious analytic tactic in the United States setting. Lieberman showed that the segregation of the various European national origin groups one from another diminished during the first half of the twentieth century, in contrast to the increasing segregation of Negroes from all other groups. Similar findings have been presented for Orientals, Puerto Ricans and Mexican Americans in selected cities. The uniqueness of the Negro situation was emphasized and the strength and tenacity of their segregation were contrasted to the situation of any other major group in American society. Kantrowitz has recently taken issue with the tone (if not the substance) of such comparisons. In the melange of economic, religious and other bases for neighborhood formation, “ethnic segregation is usually seen as succumbing to a process of assimilation, as the enclaves of immigrant nationalities are replaced by religious and racial neighborhoods distributed along an economic axis from central-city slums to suburban affluence. Our own study of New York in 1960



and our examination of research done for other cities leads us to believe that although ethnic segregation has indeed weakened, the reports of its demise are exaggerated."<sup>12</sup>

Reassertion of the relevance and vitality of ethnicity as a basis of psychological and social organization is a recurrent theme in the last half-century of sociologic writing on racial and ethnic relations in the United States. The author's own reading of the literature indicates at least as much need for affirming as for denying the validity of the great melting pot theme. But these are matters of style, and not arguments of substance with Kantrowitz.<sup>13</sup> His bringing New York City into the universe of cities for which this kind of analysis has been undertaken is laudable. New York was included in the present basic segregation index series, but was excluded from all of the more intensive analyses simply because of the sheer magnitude of data processing. Lieberman also excluded New York; he too undertook his studies with pre-computer data processing. It has been said that Cleveland's segregation patterns resemble Chicago's, only less so.<sup>14</sup> Kantrowitz concludes that New York's ethnic segregation pattern is similar to that of Chicago, only more so. It is important and reassuring to fit New York into a universe of other cities.

A second contribution of the Kantrowitz piece is its emphasis on the persistence of ethnic segregation. The great declines in ethnic residential segregation seem to have come in the early part of the century, when rapid flux characterized the social organization of cities as well as the numbers and social status of the various ethnic groups. These aspects of the system are much more stable now, and the post-1930 changes in ethnic residential segregation have not been dramatic. What has happened to the third-generation ethnic stocks cannot be determined from census data, but studies must be extended to this group to retain an empirical base to the ethnic assimilation-persistence controversy.

In *NEGROES IN CITIES* much attention was devoted to the "poverty explanation" of racial residential segregation, and the conclusions from several analytical perspectives were in agreement:<sup>15</sup>

Because low-cost housing tends to be segregated from high-cost housing, any low-income group within the city will be residentially segregated to some extent from those with higher incomes. Economic factors, however, cannot account for more than a small portion of observed levels of racial residential segregation. Regardless of their economic status, Negroes rarely live in "white" residential areas, while whites, no matter how poor, rarely

live in "Negro" residential areas. In recent decades, Negroes have been more successful in securing improvements in economic status than in obtaining housing on a less segregated basis. Continued economic gains by Negroes are not likely to alter substantially the prevalent patterns of racial residential segregation.

In an independent study conducted prior to publication of these results, Pascal examined residential segregation in two cities for which special data sources were available and explained 50 per cent of the variance in neighborhood percentage Negro with a regression equation that "was intended to reflect those forces accounting for the socio-economic segment of observed nonwhite segregation."<sup>16</sup> These results seem to allocate more weight to the poverty explanation than did the above analysis, and an effort at reconciliation is necessary.

Myrdal simplified by dividing the causes of residential segregation into only three parts, (choice, discrimination, poverty). He overlooked a number of other social and economic factors, such as size of the household, job location and other transportation needs of the household.

Pascal deliberately sought to develop a well-defined socioeconomic model of residential location. A narrower concern with economic status and a methodology ill-adapted to inclusion of several variables simultaneously were chosen for the present study. Before discussing the methodologies, some comment should be made on Pascal's model.

Pascal's basic regression equation "postulated that a sub-area's proportion of nonwhite resident households would be a linear function of the sub-area's relative access to nonwhite employment opportunities, its available structure types and an estimate of the average per dwelling unit outlay on housing services in the sub-area."<sup>17</sup> His dependent variable—percentage Negro—was the same as that in the present study, but crucial differences are found in the independent variables and their treatment.

Of Pascal's three basic independent variables, two (housing price and type of unit) are also considered in some of this author's models. The distinct and ingenious aspect of Pascal's analysis is inclusion of a variable representing the accessibility of each housing site to the workplaces of nonwhites (measured relative to its accessibility to all workplaces). His analysis was confined to two cities, Chicago and Detroit, for which transportation surveys provided information on job locations by race.

The measure of relative accessibility has a coefficient of determina-

tion of 0.37 with percentage Negro among sub-areas in Chicago and 0.28 in Detroit. Pascal discusses at length "the possible role of a causality the reverse of what was implied by the equation," concluding that this is only a minor impediment to interpreting his model as causal.<sup>18</sup> This author reaches a different conclusion and will defend it, although it is not possible here to review all the issues (they are mainly subjective, given the paucity of appropriate data).

One of Pascal's equations shows that the percentage of Negro residents in an area is not closely correlated with the area's accessibility to unskilled jobs generally, but is correlated with accessibility to jobs held by Negroes, most of which are unskilled.<sup>19</sup> Thus, where Negroes live determines which unskilled jobs they get, but the fact that most Negroes seek unskilled jobs does not greatly constrain their housing choice. Current concern over the inaccessibility of suburban jobs to Negroes also suggests that Negro residential location constrains job location rather than the reverse.<sup>20</sup>

What is needed, of course, is a longitudinal analysis of job and residence changes, but no such analysis is currently available. Argument from cross-section to temporal sequence and from correlation to causality is of limited utility. In the real world of Chicago and Detroit, long-established locational patterns of Negro jobs and Negro residences persist, impervious to causal analysis.

The role of poverty has been assessed using indirect standardization, an approach familiar to demographers.<sup>21</sup> Given for each census tract in a city the distribution of households by value or rent of their housing, and given for the city as a whole the percentage of Negro households at each level of value and rent, an expected number of Negro households is calculated for each tract. This expected number of Negro households is then converted to an expected percentage for each tract. Variation among tracts in expected percentage Negro represents the racial segregation that is attributable to the uneven distribution throughout the city of housing of any given price level and the disproportionate occupancy of lower-priced housing by Negroes. Comparison of actual with expected percentages Negro indicates the degree to which this specific poverty model accounts for observed segregation.

For 15 cities for which this model was evaluated with data from the 1960 census, the coefficient of determination between actual and expected percentages Negro ranged from 22 to 60 per cent, with an average of 33 per cent.<sup>22</sup> Chicago was not included among the 15

cities, but Detroit was. The author's results for Detroit may be compared with those of Pascal. Because of the date of the transportation survey, he used 1950 census data for Detroit; the author's results are cited for 1950 also. The present study obtained a coefficient of determination of 24 per cent (27 per cent for 1960); Pascal obtained a coefficient of 44 per cent.

Both studies regressed actual percentage Negro among sub-areas of Detroit on other sub-area measures. In the present case the independent variable was the expected percentage Negro obtained from the tenure-value-rent standardization. Pascal worked with three independent variables: housing price (a weighting of median rent and value), percentage of dwelling units in single-family and two-family structures (this is similar to the percentage owner-occupied) and relative accessibility to Negro jobs. Pascal's first two variables may be regarded as capturing aspects of the tenure-value-rent distribution that the author utilized in fuller detail in the standardization.

Much of the difference between his results and the present results is derived from the additional variable he included, relative accessibility to Negro jobs. Differences in how to interpret the effect of this variable have already been discussed.

Aside from questions about the specific measure of accessibility, one may differ with Pascal over whether to include any such variable in the analysis. His socioeconomic model of residential location was developed in large part as a means of splitting the total observed residential segregation into one component attributable to white-Negro differences in socioeconomic traits and a residual component of attitudinal factors embracing both Negro and white choices. It is a common feature of socioeconomic studies of this type that discrimination is measured as a residual, as that component of racial differences not attributable to the various objective traits included in the model.<sup>23</sup> If the goal is to interpret the residual as attitudinal factors or discrimination, then Pascal is correct in insisting that the basic model be well defined. Failure to include relevant variables leads to an exaggerated evaluation of discrimination.

NEGROES IN CITIES failed to clarify this fundamental point and tended to label as discrimination a residual that also included non-poverty components of a socioeconomic model of residential location. Pascal's approach, by contrast, narrows the residual, but lumps together under the label of socioeconomic factors a miscellany of items, several of which are difficult to interpret causally and of ques-

tionable relevance to discussion of poverty or economic status as a cause of segregation.

An important methodological difference also exists between the two analyses. This author did not accept the coefficient of determination of actual or expected percentage Negro (24 per cent for Detroit for 1950) as an appropriate measure of the explanatory power of the poverty explanation of segregation. Drawing further on the demographic tradition, Duncan's technique was applied for decomposing the total explained variance into components.<sup>24</sup> The net effect of economic segregation in explaining residential segregation was assessed by this procedure at two per cent for Detroit for 1950, and as ranging from one to 18 per cent (mean of nine per cent) for 15 cities for 1960.

The need for such a decomposition may be most easily illustrated with a hypothetical situation using occupational data to index socio-economic factors. Suppose that in the male labor force two per cent of Negroes but zero per cent of whites are employed as private household workers. Assume that the other 98 per cent of Negroes are distributed among occupations exactly as are whites. Assume complete residential segregation between Negroes and whites. An indirect standardization would yield expected percentages Negro for the all-Negro tracts that were slightly above the city mean percentage and would yield for the all-white tracts expected percentages only slightly below the city mean. These expected percentages would correlate almost perfectly with the actual percentages. The tiny amount of variance in expected percentages suffices statistically to explain the large variance in actual percentages. But the causal model is one of allocation of individuals to residential locations on the basis of their economic attributes rather than their race, and the standardization shows that this model does not yield much racial segregation. Clearly something goes awry when one tries to assess the workings of the individual-level model by correlating and regressing areal data.

Another way of viewing the difficulty is as a tipping phenomenon. Once a tract with, say, a slight prevalence of low-priced housing gets a few Negro residents, it proceeds to become all Negro. This tipping may perhaps be regarded as having begun on economic grounds, but its continuation must reflect the operation of other factors as well. The variance decomposition is a technique for distinguishing these direct and indirect causes of what happens to areas. The specific technique is not applicable to the regression approach used

by Pascal, but an analogous problem exists that precludes interpretation of his coefficient of determination as a direct assessment of the power of socioeconomic factors to explain racial residential segregation. (However, the author's failure to develop this argument with statistical rigor has meant a failure to persuade Pascal of its relevance, whereas he, in turn, questions on econometric grounds the merits of the variance decomposition in this analysis.)

One motivation for assessing the determinants of residential segregation is to help rationalize the policy choices of those seeking to combat the extreme racial segregation prevalent in cities. For this purpose the problem of the quantitative analyst is to reach an informed judgment about the role of white and Negro attitudes and their manifestation in specific kinds of housing market discrimination, the role of the economic handicaps experienced by Negroes, the role of other socioeconomic factors affecting housing location and the role of sub-area homogeneity of housing types.

Neither study was able to differentiate among all these factors nor to draw from the analyses highly specific policy recommendations. The studies do differ, however, in the general emphasis given to broad policy choices. Pascal concluded:<sup>25</sup>

Perhaps, given all of this, the most prudent recommendation to be derived is that housing segregation be attacked indirectly. If, admitting all the caveats, perhaps one-half of observed segregation can be explained on the basis of the socioeconomic disadvantages experienced by Negroes, it would certainly seem appropriate to lay stress on those programs which have as their ultimate goal the elimination of the disadvantages. This suggests that concentration on education, training, community participation, and the reduction of the effects of racial prejudice in employment markets should result in substantial improvement in the housing plight of the urban Negro.

This author is skeptical that such "indirect" approaches to housing desegregation will be effective. The standardization analysis utilizing information on tenure, value and rent of housing units shows that Negro households already own enough housing and pay high enough rents to be substantially desegregated. A standardization analysis using income data gave similar results, and the possible impact on housing segregation of various degrees of equalization of white and Negro income distributions was assessed. "Elimination of poverty would enable poor whites and Negroes to live according to the slightly more segregated patterns of middle income families . . . By contrast,

a program which successfully achieved racial integration in low-income housing, even though high-income housing remained rigidly segregated, would solve most of the problem of racial residential segregation.”<sup>26</sup>

In introducing this essay a variety of perspectives was noted from which to approach the analysis of racial residential segregation. The conclusion focussed on a policy perspective. Although each of these perspectives remains underdeveloped, those essaying quantitative analysis have demonstrated its utility as a means of augmenting knowledge of racial segregation.

## REFERENCES

<sup>1</sup> This paper draws heavily on material reported in Taeuber, K. E. and Taeuber, A. F. *NEGROES IN CITIES: RESIDENTIAL SEGREGATION AND NEIGHBORHOOD CHANGE*, Chicago, Aldine Publishing Company, 1965. Subsequent work has been reported in Farley, R. and Taeuber, K. E., Population Trends and Residential Segregation since 1960, *Science*, 159, 953-956, March 1, 1968; Taeuber, K. E., The Effect of Income Redistribution on Racial Residential Segregation, *Urban Affairs Quarterly*, 4, 5-14, September, 1968; ———, The Problem of Residential Segregation, in *URBAN RIOTS: VIOLENCE AND SOCIAL CHANGE*, Proceedings of the Academy of Political Science, 29, July, 1968.

<sup>2</sup> Taeuber and Taeuber, *op. cit.*, the methodologic discussion is in Appendix A, the presentation of index results in Chapter 3. Several algebraically equivalent equations are available for calculating the index of dissimilarity. One approach is to classify all blocks in the city into two groups, those of Negro overrepresentation and those of Negro underrepresentation, according to whether the percentage Negro for the block exceeds or falls short of the percentage Negro for the entire city. Some percentage of the city's Negro residents resides in blocks of Negro overrepresentation; a lower percentage of the city's white residents resides in these blocks. The difference between the two percentages gives the index.

<sup>3</sup> *Ibid.*, p. 2.

<sup>4</sup> Sudman, S., Bradburn, N. M. and Gockel, G., The Extent and Characteristics of Racially Integrated Housing in the United States, *Journal of Business of the University of Chicago*, 42, 50-92, January, 1969.

<sup>5</sup> Taeuber, K. E., Residential Segregation, *Scientific American*, 213, 17, August, 1965; the full discussion of the regression analysis of segregation changes is in Taeuber and Taeuber, *op. cit.*, pp. 70-77.

<sup>6</sup> Farley and Taeuber, *op. cit.*

<sup>7</sup> *Ibid.*, p. 955.

<sup>8</sup> Cowgill, D. O., Trends in Residential Segregation of Nonwhites in American Cities, 1940-50, *American Sociological Review*, 27, June, 1962; Bell, W. and Willis, E. M., The Segregation of Negroes in American Cities, *Social and Economic Studies*, 6, March, 1957.

<sup>9</sup> Taeuber and Taeuber, *op. cit.*, Appendix A.

<sup>10</sup> Taeuber, The Problem of Residential Segregation, *op. cit.*

<sup>11</sup> Lieberman, S., *ETHNIC PATTERNS IN AMERICAN CITIES*, New York, The Free Press of Glencoe, 1963; Taeuber and Taeuber, *op. cit.*, Chapter 3.

<sup>12</sup> Kantrowitz, N., Ethnic and Racial Segregation in the New York Metropolis, 1960, *American Journal of Sociology*, 74, May, 1969.

<sup>13</sup> I do have reservations about Kantrowitz' discussion of the succession of first, second and third generations, but this is peripheral to his main analysis. See Taeuber, K. E. and Taeuber, A. F., Recent Immigration and Studies of Ethnic Assimilation, *Demography*, 4, 798-808, 1967.

<sup>14</sup> Taeuber, The Effect of Income Redistribution on Racial Residential Segregation, *op. cit.*

<sup>15</sup> *Ibid.*, pp. 2-3.

<sup>16</sup> Pascal, A. H., *The Economics of Housing Segregation*, Santa Monica, The Rand Corporation, Memorandum RM-5510-RC, 1967, p. 177. In a recent review of perspectives on the causes of residential segregation Pascal proposes modifications in his earlier model, but he has not yet reported new empirical results. See Pascal, A. H., *The Analysis of Residential Segregation*, in Crescine, J. P. (Editor), *FINANCING THE METROPOLIS*, Beverly Hills, Sage Publications, Inc., in press.

<sup>17</sup> *The Economics of Housing Segregation*, *op. cit.*

<sup>18</sup> *Ibid.*

<sup>19</sup> This is my inference from his equation C-VI. 2 on p. 115 and the simple correlations on p. 187.

<sup>20</sup> I disagree, however with much of the discussion of this topic. The real difficulty is the paucity of relevant data and the inadequacy of the few most-cited analyses.

<sup>21</sup> Taeuber and Taeuber, *NEGROES IN CITIES*, *op. cit.*

<sup>22</sup> The cited pages discuss several similar models and also report data for 1940 and 1950.

<sup>23</sup> Duncan, O. D., Discrimination against Negroes, *Annals of the American Academy of Political and Social Science*, 371, 87, May, 1967.

<sup>24</sup> ———, Residential Segregation and Social Differentiation, in *INTERNATIONAL POPULATION CONFERENCE, VIENNA*, Vienna, International Union for the Scientific Study of Population, 1959, pp. 571-577; Duncan, O. D., Cuzzort, R. P. and Duncan, B., *STATISTICAL GEOGRAPHY*, Glencoe, Illinois, The Free Press, 1961, pp. 121-128.

<sup>25</sup> Pascal, *THE ECONOMICS OF HOUSING SEGREGATION*, *op. cit.*, p. 180.

<sup>26</sup> Taeuber, The Effect of Income Redistribution on Racial Residential Segregation, *op. cit.*



## DISCUSSION

*Dr. James A. Jones:* I did do my homework as I should. Having gotten a copy of the paper I sat down and wrote a commentary on it. Then, in standard absent-minded professor manner, left it somewhere—I don't know where. My comments, therefore, are a recollection of the trenchant and precise analysis that was contained in that paper.

Dr. Taeuber, in the early part of the paper, exercises a customary caution in foregoing predictions of what the 1970 Census will show when the same residential segregation indices are recomputed. He indicates in his paper that his reserve is a consequence of having looked at a number of prediction studies that floundered on the rock of reality when "prediction day" rolled around.

Since I am not a demographer, I have much more confidence in making predictions about the 1970 Census.

Very briefly, I suspect that the 1970 Census will show less residential segregation in central cities and more in suburban areas. In good social science fashion I qualify this by saying that the prediction pertains mainly to the Northeast, because I am much more familiar with the Northeast than with other regions.

That prediction introduces a problem that has already been alluded to, namely, applying the measures of segregation to the suburbs. Unfortunately, the data necessary for the analysis in the central cities often are not available for suburban areas. Yet, if a comprehensive picture of residential segregation is to be developed, the suburbs must be taken into account. There is little doubt, I think, that Negroes are definitely moving out of the central cities. Indeed, some have always been in the suburbs. For example, in Englewood, a suburb outside of New York City, the original Negro settlers were the household servants of the rich who lived on the hill. I recall one study that showed that most of the Negroes came from Texas and were brought North for the express purpose of providing household help to the rich.

Since then Englewood has grown tremendously. It is a city now, and the Negroes moving into Englewood are no longer household servants. Rather, today's Negro migrants into the suburbs are much like the standard middle-class persons who feel that this is where one moves when one gains the affluence to do so. Still, my impression of Englewood and Teaneck, a community nearby, is of the same kind of residential segregation that one sees in central cities.

These communities are much smaller. But, just as New York City and Chicago and other urban places have had their struggles over segregation in the schools, so have places, like Teaneck and Englewood, that we normally think of as suburban communities. Obviously, racial segregation in northern schools cannot exist independent of residential segregation.

A second point about the paper: I think there is a lot to be learned about Negro ghettos by applying to the ghetto itself some of the same kinds of techniques that Dr. Taeuber applies to the city as a whole. I am thinking specifically of studies that focus upon variables like economic and age segregation within all-Negro populations. Some things that have become clear from recent studies of ghettos is that they are not all of a piece. There are wide disparities in income, age and aspirations among residents of the ghetto.

Certainly if one has in mind notions of social planning and social change, one needs a sharp analysis of the entity under that single label "ghetto." I think some of the techniques for looking at residential segregation can be applied to other aspects of life within the ghetto.

When one moves to the "so what" question, one is confronted by a barrier that probably afflicts demographic analysis in particular. The analyses that are done by demographers are much more heavily controlled by the availability of quantifiable data than in any other analysis. Yet, questions are beginning to pop up as to how relevant and important standard things like sex and age are to understanding residential segregation, when contrasted with some of the more elusive kinds of variables that sociologists study, such as the aspirations and values that individuals hold. Consequently, I think much more emphasis will be placed upon utilization of so-called soft data than demographers customarily work with as a way of finding, describing and understanding residential segregation and what goes on in segregated areas.

One of the virtues of demography is that if it does not deal with hard data, it deals with data whose softness is known. I am suggesting that for a deeper understanding one needs to venture out of the realm of hard data into one where the researcher is less sure of his data's hardness and softness.

Dr. Taeuber reminds us that the model for looking at residential segregation can be traced back at least to Gunnar Myrdal's classification of residential segregation as due to economic factors, racial discrimination and choice. It appears that two of these are essentially

residual variables. Whatever cannot be statistically attributed to economic variables is assumed to be attributable to racial discrimination and choice. If we can develop direct measures of choice and racial discrimination, it might be possible to parcel out much more accurately the contributory effects of this trilogy upon the phenomenon of residential segregation.

Let me close with a comment on Dr. Taeuber's observations on Kantrowitz' argument. Despite the fact that demographic analyses tend to deal with relatively hard data, our understanding of phenomena is still mainly a matter of interpretation. That is something we need to remember when analyzing data.

*Dr. Bernard:* The comments I have fit in with what Dr. Jones was saying. In connection with the "choice" variable that has been mentioned, I was glad to know that Dr. Karl Taeuber is acquainted with the work of Tom Schelling at Rand.

I would like to second the comment about a detailed ecologic analysis of the black community that I think is now possible along the lines that Frazier did in Chicago a generation ago. The ecologic paradigm in its classic form has collapsed, I know, but is it collapsing in a different way in the black community than in the overall community? Also, do you have any data on the reverse invasion, that of white people invading or taking over black areas? When this happens, do you have young white people and old black people in the same area? Also, we hear a lot in Washington about freeways and highways and what they do to a city, how they change the normal pattern. Can these changes be pinpointed from your data?

*Dr. Glick:* Near the beginning of Dr. Taeuber's paper there is a statement that every neighborhood has to have black and white residents in the same proportion as they compose within the total urban area to qualify as an urban area with no segregation.

It seems to me that the statement should contain a reference to the ability of the residents to afford housing in the various parts of the urban area. In addition, the choice factor should enter in. Not everyone would choose to live in an integrated community even if the choice became perfectly free. What we really should have is a measure that would tell us how much segregation would exist if everybody were absolutely free to live where he wanted to live, within his ability to afford the cost of the available housing. Such a measure would seem to be a more realistic standard against which to measure *de facto* segregation than the one used by Taeuber.

*Dr. Notestein:* I know very little about this, but he was defining a trend and you are explaining it.

*Dr. Glick:* Let him comment on it.

*Dr. Notestein:* I don't believe you have attacked the definition.

*Dr. Glick:* I meant to attack the definition. "Segregation" should be defined as a condition that exists outside the limits of free choice and ability to afford housing of a given cost. A better term for the phenomenon Taeuber studied would be "racial concentration."

*Dr. Lawrence:* Actually, this is the crux of Kantrowitz' argument—or rather a fundamental assumption made by him. If we know the location of various ethnic and nationality groups within a city, this is all we need to establish whether people are segregated. We do not have to know why they are there, or whether they could afford to be somewhere else, or even if they desire to be elsewhere. However, the hard reality of racial segregation, as contrasted with nonracial segregation, is that the former has usually been imposed from outside, rather than being purely or primarily voluntary.

*Dr. Hauser:* I want to make an observation with respect to this question that Dr. Lawrence raised. I just cannot help noting that Kantrowitz and Taeuber are both students of Chicago. The index is not really a very mysterious one; it might be well to straighten out the point.

If you have a segregation index of 97, that means that 97 per cent of the blacks would have to be moved if their distribution in the city, by Census tracts or other unit of area, is to match the distribution of the whites. It is a frequency distribution over the entire area by geographic units for white and black, respectively, with differences between the two destinations divided by two or summed for differences of same sign. This is the index; it is a simple one, and one that has the virtue of great ease in interpretation if you are talking about segregation.

If the index is 80, that means that 80 per cent of that population would have to be redistributed to match the distribution of whatever your subject group is, in this case the white population. The point is, you are taking the white distribution as the standard; the distribution of white by Census tract or what have you, and comparing it with the distribution of blacks.

You can take another factor—density—into account. With the densities that prevail in Harlem, the 200 million people in the United States could all live in the New York metropolitan area.

But my basic point is this: The index is a simple one, and there are a lot of pros and cons, depending on what you are trying to measure.

With respect to the ethnic groups, I think the significant thing that ought to be brought into the discussion is that indices of other types of ethnic segregation, certainly after one or two generations beyond the period of actual immigration, have never reached the level of the black segregation indexes.

Segregation indices of other ethnic groups may run from 40 to 60; but segregation indices of the blacks run from maybe 85 to 98 per cent. Those are quite different magnitudes, and the magnitude that is involved is also, I think, to be emphasized along with the differences in choice of residence the white immigrants and blacks had.

*Mr. Mauldin:* The index is not quite as simple to me as it is to Dr. Hauser. Dr. Taeuber stated that the specific value of the index from zero to 100 indicated the per cent of the black population that would have to move from one block (or tract) to another to bring the residential distribution in line with the other race. Then I got lost.

*Dr. Bogue:* Mr. Mauldin is right; there is some confusion here. There are two ways of measuring segregation; call them intensity and quantity. The segregation index measures quantity of segregation; how many people would have to be moved to get to an equal distribution. The alternative index is intensity. This is what Mr. Mauldin is trying to formulate. Now, if you have a given tract that has a certain proportion, how does this differ from the average for the city as a whole? This gets at intensity. These two forms of measuring segregation have existed side by side. Duncan invented one and Wendel Bell invented the other. They never have been really reconciled. The Duncans try to get what they call the segregation curve, which incorporates the Bell formulation. Recently we have tried to reconcile them by measuring different forms of segregation. We are getting two segregation indices for a city with a computer program that is now processing the stuff for all the cities in the 1960 Census that were tracted. You do get different results.

*Dr. Liebow:* I'm sure that this index of segregation has a great many uses, but I feel it's somewhat presumptuous to call it an index of segregation. It's not saying a hell of a lot about what segregation is at all. It's saying an awful lot, perhaps, about the number of black people and the number of white people who live in a given area.

But if you were to go to the people who live in a mixed neighbor-

hood, and ask them: "Do you live in a segregated neighborhood?" I think you would get a whole range of responses.

Assume there is some distinction between a mixed neighborhood and an integrated neighborhood. I live in Brookland, the neighborhood that Dr. Taueber was referring to before, in Northeast Washington, and I know that some people in that neighborhood are leading all-black lives; some people are living all-white lives; and some people are living mixed lives, not segregated lives.

And if you were to go to the different people in the neighborhood you would get different answers, and I don't think that they would accept this index of the number of people who were black or white in that particular geographic area as an index of segregation at all.

I'm sure it's an index of something, and a very important one, and no doubt a very useful one, but it doesn't say much about segregation; at least not in the mixed community. It will say a lot about segregation in an all-black or an all-white community but it will not say much about it in a mixed community.

*Dr. Hauser:* You have a semantic problem, and "each to his own," so to speak. If you are discussing segregation in the sense of human interaction and sharing of the life space, obviously the index is not a measure of that.

We have here a comparable situation with the definition of the city. We talk of the city, and urbanization. There are a great many ways to define the city, including a geographic one, an economic one, a political one, a structural one and so on. We arbitrarily settle on a demographic one because it is the only one we can quantify readily.

Urbanism as a way of life obviously involves much more than does the demographic definition of a city.

I think the quarrel should not be with the use of the term segregation. It is necessary to recognize the need to get other measurements and indicators of the kinds of things you are talking about. You are talking now about segregation in terms of what happens in the sharing of the life space. The index of segregation is admittedly not an index of that.

What I think we get down to is that language in social science and in our general language get intermixed and the same words have meant different things. It would probably be better to call this index an index of residential segregation.

*Dr. Liebow:* But I suspect that some people, including the policy makers, are using indices labeled in this way to make value judgments

on different cities, and perhaps even for the implementation of policies.

*Dr. Driver:* I think there is danger, as Dr. Liebow has pointed out, of taking the index to suggest certain patterns of interaction. Even on a neighborhood basis, as the Deutsch and Cook study of interracial housing has shown for New York City, you can get a certain index of the separation for one type of housing and the same index for a different kind of housing pattern, but the outputs of the same indices in terms of the interaction are quite different.

I think this is a point that is of importance, here, because it then really goes back to a definition of race; whether or not you take race in terms of certain qualities and certain attributes *or* forms of interaction.

*Dr. Edwards:* Of course, you would not have the argument if we were talking about segregation in business institutions. In other words, if you think of segregation as being denoted by any one of these, in which you observe phenomena in space, then this argument does not apply. It happens that we are talking about human beings. It is clear to us, but I think we ought to take account of the view that Liebow puts forth.

*Dr. Beasley:* Dr. Taeuber, you seem to indicate that once a tract with a prevalence of low-price housing gets a few Negro residents, the tipping may, perhaps, be regarded as having been done on economic grounds, but may reflect the operation of other factors as well.

The phenomenon of "blockbusting" in Southern areas may afford an illustration. I have observed in several areas that when you have one black person come into a white-black area and there is an initial sporadic complaint and this persists and increases. Then there is organized economic pressure that may come from a group of realtors, or one realtor may make offers to people in a sequence of events that can hardly be called random in terms of getting whites to sell out low and getting Negroes to buy in at high rates.

I don't know how this persists in the East, and I have no objective data, but you alluded to this and I wondered if you have any objective data on it. I have heard of two rather large communities in which the entire area changed from a completely white to a completely black area in a period of one year.

But there were many other factors operating, here, besides where people wanted to live; what their desires were, and their ability to pay. One of the other factors that I observed in one area, completely from subjective data, was that many of the white residents wanted

to remain in the area but had great social pressure placed upon them to move out.

*Dr. Karl Taeuber:* The index definition is difficult to clarify verbally. I recommend taking a hypothetical set of numbers and following the discussion in the methodologic appendix of *NEGROES IN CITIES*. But a quick numerical example may illustrate a key feature of the index we use. Consider a city in which there are ten blocks, each with 90 whites and ten Negroes. Segregation is zero. To modify this by moving people around requires that at least two blocks now become deviant, say 85 and 15 for the block of Negro overrepresentation and 95 and 5 for the block of Negro underrepresentation. The index can be calculated by taking  $15/100 - 85/900$ , or  $95/900 - 5/100$ . Each fraction equals  $50/900$  or .056. Adjusting the scale yields an index of 5.6.

This index is symmetric in that the same value is given for the segregation of Negroes as for the segregation of whites. When you switch to what has been called a measure of intensity, you have an asymmetric concept. For example, the average per cent Negro in the ten blocks is quite different from the average per cent white in the blocks.

One fact that deterred me from pursuing the intensity measure is that it gets very heavily bound up with simply the per cent of whites and Negroes in the population. One of the earliest empirical studies of segregation used such an index. The index was correlated with the death rate from tuberculosis and the authors ended up saying that segregation is conducive to tuberculosis. The Duncans later did a partial correlation controlling for percentage Negro, and there was nothing left. All the correlation showed was that Negroes have higher death rates from tuberculosis than do whites.

So it is very tricky to use this kind of a measure. When relating to other phenomena one always has to figure out which of the results alludes to segregation in the sense of the differential residential distribution of whites and Negroes, or simply to the compositional aspect of such a measure, the percentage of Negro population.

As to the question of what the measure we use "really" measures, that is an open one. Logically and algebraically I think it is clear what it does and does not measure. Whether it is legitimate to pin a name on the measure—other than "Index 1"—is a question of operationalization of ideas. This arises with virtually any phenomenon measured. I do not really know how to elaborate on this, except just to emphasize once again that the index is a measure of observed



residential patterns, not of "segregation" with all its connotations of discrimination and prejudice.

Now, should one include in the basic definition some allowance for the effects of income or choice? A large part of what I endeavor to do is to assess the role of economic and other factors to see how much of the observed patterns can be accounted for in that way.

One might want to look similarly at *de facto* school segregation. So much of it can be attributed to residential patterns, but it is still there, whether it is caused by residence or by something else. The educational problems remain.

On the question of the implications for social interaction, that again is one of the lines worthy of pursuit. I just cannot comment on how that would go.

Dr. Bernard referred to a paper by Schelling<sup>1</sup> on the racial tipping point. The notion is that whites will tolerate only a given percentage of Negro residents in their neighborhood, and if the Negro percentage goes higher there will be an acceleration of racial turnover.

The difficulty with this notion is that it has never been demonstrated that there is such a tipping point before which the turnover process is slower and after which it is faster. Even among those who postulate such a theory, there is not much agreement as to whether it is one per cent or five per cent or 30 per cent. I have not found the notion very useful in looking at data.

Schelling's argument, however, is somewhat different. He puts forth models that allow whites and Negroes each to have a preference or a tolerance for certain proportions of Negroes (and/or whites) in a neighborhood.

Then he looks at what happens if people are allocated to residence within a simple geometric frame, whether they start moving to bring their neighborhoods in line with their preferences. In many cases it will turn out that not everybody can satisfy their preferences, but that a highly segregated pattern is in equilibrium.

Take a simple situation where Negroes prefer integrated living and whites have a distribution on what percentage of Negroes they will tolerate. If there is some small percentage of Negroes in a neighborhood, a few of the whites who are least tolerant of Negroes will move out.

This will shift the white distribution so that only those who are more tolerant of Negro neighbors live near Negroes. But as Negroes move in to replace the white outmovers, more whites will move out,

so you have this unstable phenomenon. You do not have to assume an arbitrary tipping point; you can simply assume a distribution of tolerances among the population.

The fundamental article on segregation within the ghetto is the piece by Frazier<sup>2</sup> showing concentric circles from the center of Harlem and the Burgess pattern of improving social and economic conditions outward from the core of the Negro residential area.

NEGROES IN CITIES reports extensive examination of residential differentiation within Negro areas. To a great degree, the Negro residential area may be viewed as a separate city, with very much the same patterns going on within it as in the total city. The better off live in the better housing within these areas and attempt to move out from the center as the housing ages and population increases. Other work has suggested this model of two completely separate housing markets, each having very similar processes within, but with a boundary between the two.

This raises a general question that I would like to tie back to some of the earlier work: What kinds of processes are we looking for? The earlier papers and discussion emphasized processes of long-run convergence and similar dynamics eventually minimizing racial, regional and cultural differences, so that these categories might tend to become less relevant for analysis.

This assimilationist perspective seems pertinent for occupation, education and a variety of other more or less formal traits that occur or are acquired in the public or common realms of the social system, of which government and the economic system are good examples. In various measures of education and economic status there seem to be similar trends for Negroes and whites, but a tendency to a 20- to 30-year gap between trend lines for Negroes and those for whites. Much analysis is directed to such questions as whether each gap is a little larger or smaller than it used to be. Will the Negroes ever catch up? What are the retarding factors? What policies might reduce the gap?

On the other hand, one comes to areas such as family formation and fertility—which will be discussed in a later section—in which wide racial differences appear in the data without clear convergence. There is some question as to whether any kind of analysis will enable one to see similar processes in Negro communities as prevail in white communities.

So we have a question of whether there are two separate domains.

In one, the processes are similar for Negroes and whites and the question is the rate at which Negroes are catching up to whites, given different starting points. In the other, patterns are quite different for Negroes and whites. Presumably in this domain the common public institutions are less dominant than cultural differences, historic differences or other unique and persistent factors.

In one case we have two populations with the same dynamics but different parameters; in the second the two populations have different dynamics. In the residential area both types of situations prevail. On the one hand there are very similar dynamics if each racial group is considered separately, but there is not any significant converging of the two processes into a single process.

A demographer should never neglect a cohort perspective. With respect to trends in residential patterns, consider the baby boom children who are now marrying and establishing households. Negro-white differentials in education, many economic attributes and mass media socialization are much less than they used to be. Will this lead to a merging of residential patterns?

As we examine other topics let us keep a cohort perspective, remembering that cohorts may be defined in other ways than simply date of birth. For example, will the urban-born produce a different set of processes, showing rates of change different from the rural-born?

*Dr. Price:* One quick comment on the index. I think the order of magnitude is the important thing. I am a little bothered by Parker's looking at the percentage the way he does, because another one of these strange statistical anomalies is the fact that without increasing the number or the per cent of Negroes in an area, it is possible to increase the percentage of Negroes in every subdivision of that area. Whether this increases segregation or not is an open question.

*Dr. Teele:* It seems to me when I read Dubois' book, *THE PHILADELPHIA NEGRO* that Negroes in Philadelphia lived somewhat differently in 1895 than they do today. They appeared to be clustered differently by residence. I must say I was pleased when Dr. Karl Taeuber mentioned Dubois, because I think he was a demographer of some ability. I would really like to see more attempts made along historic lines and more use made of studies like those by Dubois. I think that if some of the segregation indices could be stretched out over a longer period of time, we might really learn something about some of the problems and processes in our cities.

## REFERENCES

<sup>1</sup> Schelling, T. C., *Models of Segregation*, RM-6014-RC, Santa Monica, The Rand Corporation, 1969.

<sup>2</sup> Frazier, E. F., Negro Harlem: An Ecological Study, *American Journal of Sociology*, 43, 72-78, July, 1937.