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BLACK MOVEMENT TO THE SUBURBS: POTENTIALS AND PROSPECTS
FOR METROPOLITAN-WIDE INTEGRATION

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ABSTRACT

Since the issuance of the 1968 Kerner Commission Report, urban analysts have advocated the metropolitan-wide dispersal of central city Blacks as a means of achieving greater interracial unity and to allow minorities to participate more fully in the outward expansion of the metropolitan community. A recent analysis of metropolitan population characteristics provides some encouragement for this position, indicating that the economic potential and attitudinal receptivity now exist to bring about a high degree of residential integration at the metropolitan level. Despite such assertions, no study has yet examined the pace at which metropolitan-wide integration can be achieved, given the high levels of segregation that now exist, and aggregate metropolitan migration processes which both facilitate and constrain the rate of community transition.

The present investigation utilizes migration data for 24 large SMSAs, in order to examine (a) the recent pace of metropolitan-wide integration as it has been mediated by the demographic processes of residential mobility and migration; and (b) the prospects for future changes in this pace that would accompany a substantial "opening" of the suburbs to blacks. The findings suggest:

First, that constraints that had prevented black movers from locating in suburban destinations to the same degree as whites in the late 1950s continued to operate in the late 1960s; and that the aggregate redistribution resulting from these constraints served to reinforce existing city-suburb racial segregation patterns.

Second, that an immediate and complete elimination of racial discrimination toward suburban entry would bring about short-term increases in black suburbanization that are well above existing levels; yet these immediate increases would fall far short of the goal of metropolitan-wide racial integration.

The findings suggest that the elimination of residential segregation patterns which have evolved over decades of discrimination will, at best, occur at a slow and gradual pace. Although they argue strongly for even greater efforts to "open" the suburbs to blacks, these results also imply that it would be ill-advised to rely on metropolitan-wide residential integration as a means toward achieving policy objectives in the near future.

Black Movement to the Suburbs: Potentials and Prospects for Metropolitan-wide Integration

William H. Frey

The link between Black and white movement patterns, and the achievement of residential integration is a crucial one in the formulation of both policy goals and the strategies taken to implement such goals. In issuing its stark warning that the nation is headed on a course toward "two separate societies" -- a white society located primarily in the suburbs, and a Black society concentrated within large central cities, the 1968 Kerner Commission sought to emphasize its commitment to policies aimed at bringing about racial integration in large metropolitan areas (National Advisory Commission on Civil Disorders, 1968). Based on a review of available evidence, it concluded that the continued concentration of poor Blacks in the central city, coupled with the outward movement of jobs and housing in a metropolitan context made up of fragmented local government structures, would result in even further polarization between the races. The Commission therefore recommended that programs be implemented that would integrate "substantial numbers" of Blacks into the society outside the ghetto. It was felt that this increased residential integration, in addition to improving race relations in the society, would materially aid minorities by lowering unemployment, gaining access to better housing, and improving the education of their children.

Despite its belief that residential integration should be the ultimate goal of its recommendations, the Kerner Commission recognized that more immediate, interim measures would be necessary. These measures or "enrichment programs" would be aimed at improving the economic positions of central-city minorities and the quality of their existing living environments.

until more widespread integration could be accomplished. As the Commission (1968) stated:

Enrichment must be an important adjunct to any integration course. No matter how ambitious or energetic such a program may be, relatively few Negroes now living in central-city ghettos would be quickly integrated. In the meantime, significant improvement in their present environment is essential. [p. 406].

The benefits to be gained by ghetto dispersal or "open suburbs" have subsequently been enumerated by urban analysts. Downs (1973), in emphasizing opening the suburbs to the poor rather than just the Black poor, has quantified specific policy objectives in terms of numbers of suburban dwelling units to be constructed, the volume of city-to-suburb movement needed, etc., and lists as well, strategies designed to achieve such objectives. Urban economists have noted that aside from benefiting minorities in a material sense, the dispersal of central-city ghettos would lead to a greater investment in, and redevelopment of our continually declining central cities (Kain and Persky, 1969).¹ Arguments in favor of the metropolitan-wide residential desegregation of the races have been applied to school desegregation strategies as well (Farley, 1975). However, proposed area-wide school desegregation mechanisms such as cross-district busing programs must in themselves be thought of as interim policy measures, aimed at achieving a greater level of interracial contact until more widespread residential integration can be brought about.

The degree to which metropolitan-wide residential integration can be counted on to achieve the goals of greater interracial unity in the society, material gains for minorities, and economically more viable central cities depends in large measure on the pace with which such integration can be

accomplished. This was implicit in the Kerner Commission's dual recommendations favoring dispersal and enrichment. One obvious barrier to such integration must be linked to the greater incidence of poverty and relatively lower economic status of Blacks--**a situation which, to some extent,** prevents their moving to more desirable housing and neighborhoods outside the ghetto. Nevertheless, it has been demonstrated that most of the **residential segregation that exists between blacks and whites across urban** neighborhoods cannot be attributed to income disparities between the races (Taeuber and Taeuber, 1965). The bulk of this segregation, it has been argued, must be associated with past and present racially discriminatory practices on the part of both public and private institutions, which have limited the residential choices of Blacks, and have served to channel them away from moving into all white neighborhoods (Foley, 1973; Taeuber, 1975).

Given this situation, it is tempting to suggest that massive and sustained efforts aimed toward the elimination of racially discriminatory housing practices could lead to a corresponding elimination of the racial segregation which now exists between cities and suburbs, and across neighborhoods within metropolitan areas. Indeed it has been argued that as a result of recent gains, Blacks now possess the economic potential **that would permit** a high degree of residential integration to take place at the metropolitan level (Hermalin and Farley, 1973). Although persuasive, such arguments often fail to take into account the population dynamics of residential change, particularly the processes of residential mobility and migration **that are** constantly at work in the metropolitan area, and **that themselves both** facilitate and constrain the rate at which community transition can take place.

In the present study, we utilize migration and redistribution data from 24 large metropolitan areas in order to empirically evaluate just how effective the lowering of institutional barriers to equal housing choice might be in achieving metropolitan-wide integration in the short term. We focus specifically on the redistributive impact such efforts would exert on increasing Black representation in the suburbs since increases in city-suburb racial integration are a prerequisite to metropolitan-wide integration at the neighborhood level. This analysis should shed light on the pace with which widespread residential desegregation can be brought about and the degree to which more interim measures need to be relied upon in order to achieve stated policy objectives.

The Recent Pace of Black Suburbanization

The recent history of Black suburbanization in the United States does not portend a great deal of optimism for immediate metropolitan-wide racial integration. An examination of post-World War II change patterns with regard to three sociodemographic indicators--the percent of the total suburban population which is Black, the economic status of suburban Blacks, and the level of neighborhood integration in the suburbs--reveals that Black suburbanization has been occurring, but at a painfully slow pace.

It is true that the suburban Black population, at the national level, has grown substantially since 1950. In that year, there were 1.9 million Blacks in the nation's suburbs, as compared to 3.2 million in 1970, a growth of 70%. The growth rate for the same period outside the South was 125% (Taeuber, 1972). Moreover, data for the 15 largest urbanized areas indicate that the rate of Black suburban growth has increased from the 1950s to the 1960s, while the corresponding white growth rate has declined

(Farley, 1976). The Black rates, of course, are deceptive because they apply to small base populations. If one looks at decade changes in the percentage of the suburban population which is Black, it is found that very slight increases are taking place. In most Northern SMSAs (Standard Metropolitan Statistical Areas), this percentage hovers around 5%, and for many areas this figure has changed only slightly over the period of four decades (Schnore, André and Sharp, 1976). The Black share of suburban population generally remains higher in Southern SMSAs. This is in some measure due to the continuing existence of previously rural Black enclaves which now lie within the boundaries of metropolitan areas. However, recent large inflows of whites to Southern suburbs are serving to decrease Black representation in these areas (Farley, 1970; Long, 1973).

A second demographic yardstick that can be used to measure the pace of Black suburbanization is the changing socioeconomic status of Black suburban residents in relation to central-city Blacks. As a result of past patterns of metropolitan growth and development and the accompanying selectivity in population redistribution, the socioeconomic status of suburban whites, in the aggregate, is generally higher than that of white central-city residents (Schnore, 1965; 1972). For Blacks, this city-suburb status difference has remained less clear-cut (Palen and Schnore, 1965) and according to the 1960 census, Black central-city residents generally outranked suburban Blacks with regard to most measures of status (Farley, 1970). By 1970 this pattern had reversed slightly at the national level (Clay, 1975) and in many individual suburban communities status advances over central-city Blacks were particularly marked (Connally, 1973; Grier, 1973).

This recent suburbanization of higher status Blacks has not done much to change the overall dominance of white suburban residence at all status levels. In order to underscore this point, we reproduce Farley's (1976) data on white and Black suburban representation rates (proportion of the total white or Black population which resides in the suburbs) at different levels of education for the 15 largest urbanized areas in 1970 (Figure 1). It is apparent from this figure that for Blacks, increases in status are only slightly associated with residence in the suburbs. Indeed, Black suburban representation at all status levels is well below white suburban representation at all status levels.

As a third indicator of Black suburbanization, we might evaluate the degree to which suburbanizing Blacks are dispersing themselves among whites at the community or neighborhood levels. Although a time series of such an indicator is generally unavailable, a few studies have looked at the racial compositions of communities and neighborhoods which have served as destinations for Black suburban in-migrants. The evidence here suggests that these communities and neighborhoods are composed disproportionately of Blacks, and indicates further that what may be statistically discernable as Black suburbanization actually represents "ghetto spillover" (Farley, 1970; Connally, 1973; Rose, 1976).² That a high level of suburban racial segregation exists is confirmed by the 1970 block-based indices of segregation computed by Sørensen, Taeuber, and Hollingsworth (1975) for central cities and entire Urbanized Areas. These indices show that for 40 of 44 Northern metropolitan areas, and 27 of 44 metropolitan areas in the South, the level of segregation for the Urbanized Areas as a whole is greater than

Proportion Living in
Suburban Ring

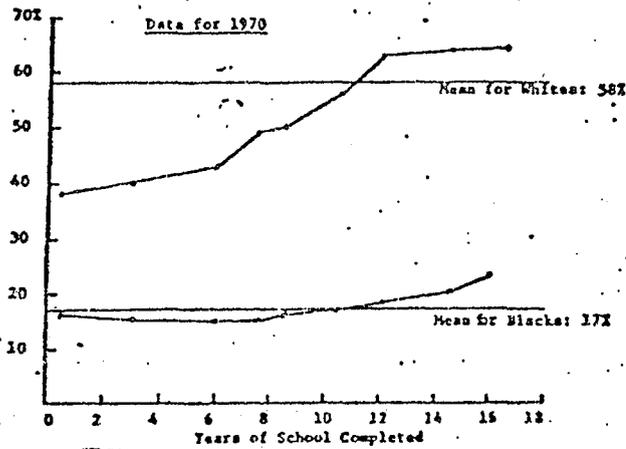


Figure 1: Proportion of adults living in Suburban Rings
by Years of School Completed and Race, 15
Urbanized Areas, 1970

Source: Farley, Reynolds, "Components of Suburban Population
Growth" in Barry Schwartz (ed.) The Changing Face of
the Suburbs. (University of Chicago Press, 1976) p. 22.

that within the central city. They indicate that Black-white segregation at the block-level is even greater in the suburbs than has been the case in the central core.

The Potential for Change

Although the demographic data just presented do not instill much hope for an immediate upturn in Black suburbanization, a study by Hermalin and Farley (1973) reports that the conditions for such an upturn are ripe. Using aggregate population figures from the 1970 Census and a time series of attitudinal survey data, the authors have sought to demonstrate that both the economic potential on the part of Blacks, and the attitudinal receptivity on the part of whites and Blacks now exist for widespread residential integration to take place--between metropolitan cities and suburbs, and at the neighborhood level.

In order to illustrate Black economic potential for residential integration, "expected" levels of Black suburban representation were computed for each of 29 Urbanized Areas, based on the assumption that Black households at each income level achieve the same level of suburban representation as white households at each income level. (Similar computations were also made standardizing on housing value rather than income.) In effect, the expected measure estimates the level of Black suburbanization that would result if Black households in the metropolitan area retain their actual income distribution, but experience the suburban representation rates of white households. The findings convincingly demonstrate that under such conditions, Black suburban representation would increase substantially in comparison to actual levels. In the 29 areas studied, the actual Black suburbanization rate in 1970 was 16%, while the expected rate--when standardized by income--was computed to be 55%.

The authors' claim of increased receptivity to residential integration on the part of both races is based on a review of nationwide attitudinal surveys of respondents' feelings toward both residential and school desegregation, going back to 1942. According to this review, four out of five whites in 1972 would be receptive to having a Black family with the same education and income move into their block--as opposed to 68% in 1965, 51% in 1956, and 35% in 1942. In addition, evidence is cited which shows that most Blacks in 1970 would prefer to live in racially mixed neighborhoods. Summarizing their findings, Hermalin and Farley (1973) write:

[E]conomic factors account for little of the concentration of Blacks within central cities, their absence from suburbia or the residential segregation of Blacks from whites in either cities or suburbs.

The attitudinal receptivity and economic potential exist for extensive residential integration
[p. 595].

This finding represents good news for those who see metropolitan-wide residential integration as a major route to achieving greater interracial unity, and a better quality of life for Blacks. It suggests that if sustained progress can be made in the elimination of those formal and informal mechanisms that have in the past constrained the residential choices of Blacks, then substantial gains in residential integration will be imminent. Although those interim measures aimed at materially aiding poverty-stricken and disadvantaged Blacks will still be essential, they will not need to be relied upon to achieve more widespread mixing of the races. Moreover, those interim measures which were proposed primarily to reduce racial separation--such as the cross-district bussing of school children, or "reverse commuting" mass transit experiments--will no longer be necessary. To be sure, the elimination of discriminatory housing practices wherever they

exist will not be an easy task. As an Advisory Commission to HUD (1972) has stated, ". . . a multiple strategy that takes account of all the factors in the market as they are modified by prejudice" is essential (Advisory Committee to the Department of Housing and Urban Development, 1972: 57). Nevertheless, the Hermalin and Farley study suggests that substantial pay-offs will result from such efforts.

Migration, Redistribution and the Prospects for Short-Run Change

There is no doubt that significant gains in Black suburbanization and metropolitan-wide integration could be brought about by "opening up" to Blacks those homes and neighborhoods to which they have previously been denied residence. However, in order to choose among alternative long-run strategies, the question must be raised as to how soon could an immediate reduction in discriminatory housing practices effect a greater degree of residential integration in the aggregate? The "expected" or potential measures of Black suburban representation computed by Hermalin and Farley are based on the assumption that the entire resident Black population in the metropolitan area could be redistributed in a manner consistent with the existing resident white population. Although these measures serve to illustrate the high degree of present-day segregation that can be attributed to racial discrimination which persisted through each metropolitan area's development history, the literature on migration and redistribution suggests that it would be unrealistic to anticipate any short-run convergence to the "expected" levels--even if the suburbs could immediately be opened to Blacks.

It is well documented, for example, that only about one-fifth of Americans change residence in a single year, and less than half change residence

over a five-year period. These figures remain fairly constant over time (Long and Boertlein, 1976), a phenomenon which might best be explained by the close correspondence between mobility incidence and major life-cycle stages. Moreover, residential mobility studies in central cities of large metropolitan areas show that about half of all moves take place within the same city neighborhood (Zimmer, 1973; Speare, Goldstein and Frey, 1975 [Chapter 4]). In short, the fairly massive redistribution of Blacks³ and whites that would need to be associated with short-run, wide-spread integration at the metropolitan level is not consistent with existing data on population movement.

The present study addresses this issue empirically by evaluating the aggregate demographic impact that Black and white movement patterns are likely to exert on suburban racial change under different sets of circumstances. It makes use of actual migration data for individual metropolitan areas as reported in the 1960 and 1970 U.S. Censuses. These are presented in Section 2. As we discuss more fully below, measures to "open up" the suburbs are most likely to affect the destination choice part of the migration process. Therefore, in the first part of the analysis (Section 3) we contrast the city-suburb destination choices of both white and Black movers in the late 1960s with those in the late 1950s. This will shed light on the progress that has been made in achieving a more balanced redistribution of the races in metropolitan areas over the ten-year period, and will point up as well how much more progress still needs to be made in this regard. In the second part of the analysis (Section 4), we examine the aggregate impacts that these destination choice patterns exert on the racial compositions of suburbs over the course of a five-year migration interval. Finally, in Section 5 we

simulate a redistribution process for each metropolitan area in which all racial differences in movers' city-suburb destination choices are eliminated. This should provide insights into how soon an "open" allocation of movers among metropolitan destinations will contribute to a racially integrated city-suburb residential pattern. The findings of the study and its implications are discussed in Section 6.

2. METROPOLITAN AREAS TO BE STUDIED

This study focuses on migration and redistribution patterns of individual metropolitan areas. In it, we utilize the only available census source that tabulates migration and residential mobility streams leading into metropolitan cities and suburbs by race and socioeconomic status, the Mobility in Metropolitan Area subject reports in the 1960 and 1970 U.S. Censuses (U.S. Bureau of the Census, 1963; 1973). Because of our reliance on these reports, we are forced to use different measures and variables than appear in previous studies of metropolitan population change and patterns of redistribution (Farley, 1976; Hermalin and Farley, 1973) such that: (1) "Suburbs" focused upon here will include the non-central-city portion of the SMSA rather than the non-central-city portion of the Urbanized Area (or the "Urban Fringe"); (2) the aggregate migration and redistribution patterns will pertain to individuals rather than households; and (3) our measure of status will be number of years of schooling rather than income level or value of housing. (Although the Mobility in Metropolitan Areas subject reports provide income tabulations, these tabulations are not disaggregated by race in 1960.)

The 24 SMSAs selected for this study include metropolitan areas with populations of 500,000 or more in 1970 for which Blacks made up more than 10% of the central-city population in either 1960 or 1970. Of the 42 SMSAs in 1970 that were eligible under this criterion, 18 were eliminated because (a) central cities were not defined comparably in 1960 and 1970 (for example, the central-city portion of the Seattle-Everett SMSA in 1970 included only Seattle in 1960); (b) a substantial amount of central city annexation took place between 1960 and 1970; (c) the SMSA contained a large military population; or (d) there was a substantial number of individuals whose migration status could not be ascertained (although NAs on the migration variable were allocated for those SMSAs that were selected). Of the 24 SMSAs in the study, 12 are located in the North (Northeast or North Central Census Regions), 10 in the South, and 2 are in the West.

In Table 1 we present 1960-70 measures of metropolitan, central city, and suburban racial change that were obtained from various census sources.⁴ For 20 of the 24 SMSAs, the Black share of the metropolitan population increased during the 1960s. In all of these except one (Pittsburgh), both the Black and white population grew during the period but the former population grew at a greater rate. The four SMSAs which exhibited declines in Black population percentage were in the South and only one of these (Birmingham) registered an absolute loss of Blacks. For most metropolitan areas, levels of increase in the Black share of the population were small. In contrast to metropolitan-wide patterns, the central cities of all SMSAs registered 1960-70 increases in their Black population percentages. These increases, in every case, were greater than corresponding metropolitan

increases--a statistic that reflects differential intrametropolitan patterns of white and Black population change.

Of particular interest for this study are the changes in suburban racial composition that occurred among the 24 SMSAs during the 1960s. As we discussed above, 1970 levels of the measure, percent suburban Black, are generally low outside of the South. Moreover, only 10 of the 24 SMSAs have registered increases in that percentage over the 1960-70 period-- increases that were substantially below corresponding increases in the Black share of the city population. These data reflect the fact that although both Black and white population growth is occurring in the suburbs, the white growth in many suburbs is still overtaking that of Blacks. In the South, this racial disparity in growth patterns is likely to continue and perhaps widen. The increase in percent suburban Black shown for Cleveland is due to the extremely large growth rate of the Black suburban population (452.8% as opposed to 23.4% for whites during the period); a similar explanation accounts for the Los Angeles-Long Beach increase in percent suburb Black. The Houston suburbs display a contrasting pattern. Here the 1960 Black suburban percentage of 12.9 was reduced by 4% during the decade. This change is due almost entirely to the large growth in Houston's white population during the period (63.3% as opposed to 7.7% for Blacks), and is characteristic of other Southern suburbs.

In the final two columns of Table 1, we have computed an index of Black suburban selectivity for each SMSA in 1960 and 1970. The index measures the degree to which Black high school graduates in the SMSA are more likely to reside in the suburbs than the total Black population. A value of 100 indicates

Table 1: Measures of Racial Composition, 1960-70 Population Change, and Suburban Representation of Black High School Graduates for Selected SMSAs.

SMSAs ¹	SMSA				City		Suburb		Suburban Representation of Black H.S. Graduates ²	
	Percent Black	Change in Pcnt Black	White Pop/Pcnt Change	Black Pop/Pcnt Change	Percent Black	Change in Pcnt Black	Percent Black	Change in Pcnt Black	1960	1970
	1970	1960-70	1960-70	1960-70	1970	1960-70	1970	1960-70		
NORTH										
Detroit	18.0	+3.1	+ 7.0	+35.5	43.7	+14.8	3.6	- .1	97	98
Gary-Hammond-E. Chicago	17.7	+2.5	+ 6.8	+28.7	33.4	+ 8.9	0.6	- .2	50	97
Chicago	17.6	+3.3	+ 7.0	+38.3	32.7	+ 9.8	3.6	+ .7	95	104
Philadelphia	17.5	+2.0	+ 7.7	+25.8	33.6	+ 7.2	6.6	+ .5	98	110
Cleveland	16.1	+2.5	4.5	28.5	38.3	+ 9.7	3.4	+2.6	122	142
St. Louis	16.0	+2.0	9.4	28.2	40.9	+12.3	7.2	+1.2	78	105
Columbus	11.6	+ .7	20.0	29.9	18.5	+ 2.1	1.8	+ .1	105	130
Cincinnati	11.0	+ .7	8.1	16.8	27.6	+ 6.0	2.9	+ .1	116	123
Youngstown-Warren	9.4	+ .2	4.7	8.4	21.7	+ 4.7	2.0	- .9	82	85
Buffalo	8.1	+1.8	+1.1	31.2	20.4	+ 7.1	1.6	0	98	107
Pittsburgh	7.1	+ .4	- .8	5.2	20.2	+ 3.5	3.5	+ .1	95	101
Syracuse	3.7	+1.5	10.7	90.4	10.8	+ 5.6	0.5	+ .2	106	179
SOUTH										
New Orleans	31.0	+ .4	14.4	+16.5	45.0	+ 7.8	12.5	-3.4	69	79
Birmingham	29.5	-2.6	6.2	-5.8	42.0	+ 2.4	20.9	-4.4	79	88
Baltimore	23.7	+2.3	11.0	27.0	46.4	+11.7	6.0	-1.0	95	120
Atlanta	22.3	- .5	37.1	34.2	51.3	+13.0	6.2	-2.3	52	73
Houston	19.3	- .2	+39.4	+38.5	25.7	+ 2.8	8.9	-4.0	76	70
Dallas	15.9	+1.1	+36.2	+50.0	24.9	+5.9	5.2	-3.1	61	68
Louisville	12.3	+ .8	+12.8	+21.7	23.8	+ 5.9	3.3	- .6	102	110
Fort Worth	10.9	+ .3	+31.8	+37.2	19.9	+ 4.1	1.3	- .7	75	88
Tampa-St. Petersburg	10.8	- .7	+31.7	+23.5	17.5	+ 2.1	4.4	-1.4	97	93
Oklahoma City	8.5	+ .5	+23.2	+32.6	13.7	+ 2.1	1.6	- .3	89	84
WEST										
Los Angeles-Long Beach	10.8	+3.2	10.1	65.3	16.5	+ 4.3	6.2	+2.6	102	107
San Francisco-Oakland	10.6	+2.1	11.0	46.1	20.5	+ 6.2	5.4	+1.6	108	106

Sources: U.S. Bureau of the Census. 1971. Census of Population and Housing: 1970 PHC(2)-1 United States
 U.S. Bureau of the Census. 1963. Census of Population: 1960 PC(2)-2C
 U.S. Bureau of the Census. 1973. Census of Population: 1970 PC(2)-2C

¹ All measures except Suburban Representation of High School Graduates in 1960 pertain to city, suburb and SMSA boundaries as defined in 1970; the latter measure pertains to 1960 boundaries.

² This measure is defined as:
$$\frac{\text{Percent of Black SMSA high school graduates, age 25 and over, that resides in the suburbs}}{\text{Percent of Black SMSA population, age 25 and over, that resides in the suburbs}} \times 100$$

The 1960 measures refer to nonwhites; the 1970 measures refer to Blacks.

that high school graduates are just as likely to reside in the suburbs as the entire population; a value greater than 100 indicates suburban selectivity of high school graduates. The indices show that for 20 of the 24 SMSAs, Black suburban selectivity has increased over the course of the decade. In five northern SMSAs, the index rose from below to above 100, and substantial increases are evident for the "suburbanizing" SMSA of Cleveland as well as for Gary, St. Louis, Columbus, and Syracuse. Both Western SMSAs maintained a fairly constant pattern of selectivity over the decade. The Southern SMSAs generally registered increases on the index, although with two exceptions (Baltimore and Louisville), Black high school graduates were more likely to live in the central city in both decades. The "border" city of Baltimore stands somewhat in contrast by exhibiting a substantial reversal in Black selectivity over the course of the decade.

The patterns of change in suburban racial composition for the SMSAs in this study generally conform to nationwide trends discussed above, although individual variations are apparent. The suburbs of two SMSAs, Cleveland and Los Angeles-Long Beach, have exhibited significant increases in their shares of Black population over the decade. Moreover, the dramatic suburbanization in the former seems to have been selective of upper status Blacks. Baltimore, a "border" Southern SMSA, reduced its share of Blacks in the suburbs, but at the same time, markedly increased the suburban selectivity of its Black population. Finally, of the SMSAs in our sample, Houston displays a prototypic pattern of suburban racial change in the South. Dominated largely by recent increases in white population growth, these suburbs are experiencing large increases in their total populations, but continuing declines in the share of Blacks. It should be kept in mind that this review

focuses on aggregate changes in racial composition that result from both net migration and natural increase. Although racial differences in migration patterns account for the bulk of the changes assessed (Long, 1973), and represent the major focus of this paper, some portion of the aggregate changes must be attributed to the different fertility and mortality patterns that exist between the races (U.S. Bureau of the Census, 1971; Taeuber, 1972).

3. RACIAL DIFFERENCES IN THE CITY-SUBURB DESTINATIONS OF MOVERS

The Destination Propensity Rate as an Indicator of Racially Constrained Movement

In this section, we examine racial differences in the city-suburb destination choices or destination propensity rates of residential movers and in-migrants to metropolitan areas.⁵ The focus on movers' destination propensities rather than on the more conventionally reported mobility incidence rates, or stream mobility rates, is intentional. It is felt that changes in racially discriminatory housing practices are most likely to affect redistribution through this aspect of the movement process, and we provide here some elaboration of this point. (See Frey [1977a] for a description of mobility rate components that are relevant to the analysis of city-suburb redistribution.) Changes in a suburb's racial composition can be effected through four types of movement streams: (1) the intrametropolitan city-to-suburb stream; (2) the intrametropolitan suburb-to-city stream; (3) the in-migration stream to the suburbs from outside the metropolitan area; and (4) the out-migration stream of suburban residents to points outside the metropolitan area. The magnitudes of the first three of these streams are dependent on the city-suburb destination propensity rates associated with various Black and white mover populations.

The first two of these streams can be viewed as residential mobility streams which, taken together, represent a subset of all residential moves that occur within the metropolitan area during an interval. Previous research on residential movement has shown that different factors are related to a resident's decision to make a move than are associated with a mover's choice of destination (Butler et al., 1969; Speare, Goldstein and Frey, 1975). The resident's decision to move is generally associated with a battery of demographic and housing characteristics that are closely linked to the life-cycle (Rossi, 1955; Simmons, 1968; Speare, 1970), an association that helps to explain the consistency of mobility incidence for subpopulations both over time and across geographic areas. In contrast, the destination choices of residential movers have been shown to fluctuate markedly from one metropolitan area to another, and across population subgroups (Frey, 1977a; 1977b). This area- and subgroup-specific variation in destination choice patterns can be attributed to the interaction of subgroup-defined mover preferences for a destination, the availability of preferred destinations in the area, and constraints (financial or other) that prevent the mover from relocating in an existing preferred destination. In our view, the constraints imposed by racially discriminatory housing practices will differentially affect the city-suburb destination propensities of Black and white residential movers, and in this manner, exert an impact on the racial compositions of the city-to-suburb and suburb-to-city residential movement streams.

For analytical purposes, it becomes a fairly straightforward matter to relate stream mobility rates to movers' destination propensity rates. The city-to-suburb stream mobility rate can be defined as the product of two components:

$$\frac{\text{city residential movers to suburbs destinations}}{\text{city residents at the beginning of an interval}} = \frac{\text{city residential movers to city or suburb destinations}}{\text{city residents at the beginning of an interval}} \times \frac{\text{city residential movers to suburb destination}}{\text{city residential movers to city or suburb destinations}} \quad (1)$$

The first component (on the right side of the equation) is a conventional mobility incidence rate that indicates the proportion of city residents that move anywhere within the metropolitan area during a migration interval. The second component indicates the proportion of city-origin residential movers that relocate in the suburbs during the interval, and represents the suburban destination propensity rate of city residential movers. In like manner the suburb-to-city stream mobility rate can be defined as:

$$\frac{\text{suburb residential movers to city destinations}}{\text{suburb residents at the beginning of an interval}} = \frac{\text{suburb residential movers to suburb or city destinations}}{\text{suburb residents at the beginning of an interval}} \times \frac{\text{suburb residential movers to city destination}}{\text{suburb residential movers to suburb or city destinations}} \quad (2)$$

In this equation, the last factor represents the city destination propensity rate for suburb residential movers.

To illustrate the influence of destination propensity rates on the residential mobility streams of Blacks and whites, we have graphed, in Figure 2, 1965-1970 city-to-suburb stream rates and 1965-1970 suburb-to-city stream rates by education level for Blacks and whites in the Cleveland SMSA, age 25 and over. In addition we present corresponding graphs for the mobility incidence and destination propensity components of each stream rate. It is apparent from this figure that most of the racial differences in the stream rates can be attributed to racial differences in the destination propensity

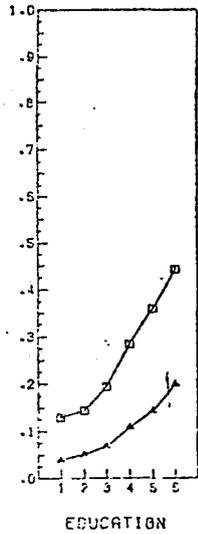
components of these rates.

The third movement stream discussed above, the in-migration stream to the suburbs from outside the metropolitan area, can itself be viewed as a product of two components. Previous studies have shown that long-distance migration between metropolitan, or labor market areas is motivated largely by economic or employment considerations (Lansing and Mueller, 1967), and that metropolitan-wide labor market characteristics tend to be strong determinants of the volume of in-migration that an SMSA experiences (Greenwood and Sweetland, 1972). Migration is therefore directed to the labor market or metropolitan area per se. The choice of an intrametropolitan city or suburb location can be viewed as a secondary consideration for the SMSA in-migrant. As with intrametropolitan movement, it is the latter choice which is affected by racially discriminatory housing practices, and the one through which the barriers to Black suburban in-migration are most apt to operate. In order to isolate this latter effect, the in-migration stream to the suburbs can be decomposed as follows:

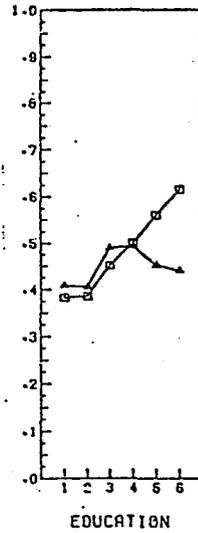
$$\begin{array}{rcl} \text{In-migrants to the} & & \text{In-migrants to} \\ \text{suburbs from} & = & \text{the SMSA} \\ \text{outside the SMSA} & & \end{array} \quad \times \quad \begin{array}{l} \text{SMSA in-migrants} \\ \text{that locate in} \\ \text{the suburbs} \\ \hline \text{In-migrants to} \\ \text{the SMSA} \end{array}$$

so that the last factor in the equation represents the suburb destination propensity rate for SMSA in-migrants. In light of the above discussion, racial disparities for this rate might be expected to be similar to those of the suburb destination propensity rate for city residential movers.

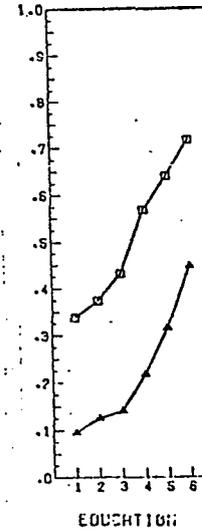
City-to-Suburb Stream Rates for City Residents



Mobility Incidence Rates for City Residents



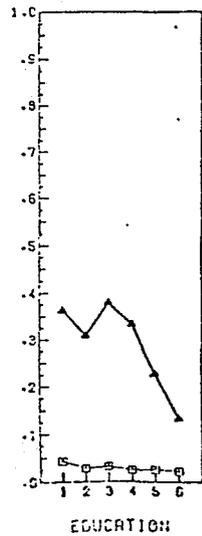
Suburb Destination Propensity Rates for City-Residential Movers



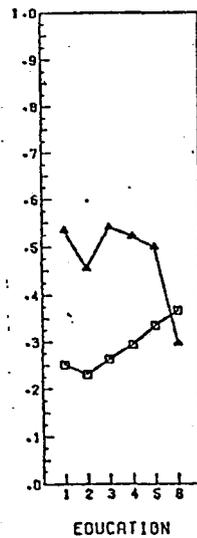
Education Levels:

- 1 = Grade School 0-7 yrs
- 2 = Grade School 8 yrs
- 3 = High School 1-3 yrs
- 4 = High School 4 yrs
- 5 = College 1-3 yrs
- 6 = College 4+ yrs

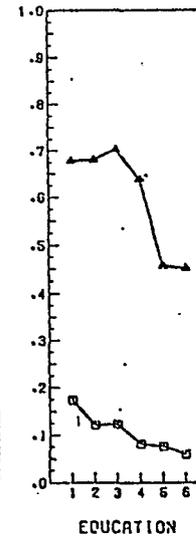
Suburb-to-City Stream Rates for Suburb Residents



Mobility Incidence Rates for Suburb Residents



City Destination Propensity Rates for Suburb-Residential Movers



KEY:

- BLACKS 1965-70
- WHITES 1965-70

Figure 2: 1965-70 Stream Rates, Mobility Incidence Rates for Residents, and Destination Propensity Rates for Movers by Race and Education Level, Cleveland SMSA

The fourth movement stream discussed above, like the third, primarily represents migration between labor markets. Since racially discriminatory practices relate to the housing market choices within the metropolitan area, they are not likely to effect racial differences in migration from the suburbs to other labor market areas. We will therefore not evaluate the impact of this stream on suburban racial composition.

To summarize, we have isolated the three mover populations whose intrametropolitan destination choices will affect the size and composition of suburban population change--city residential movers, suburb residential movers, and In-migrants to the metropolitan area. In the analyses that follow, we shall examine the city-suburb destination propensity rates for Blacks and whites in each of the mover populations. We shall examine changes in these rates between the late 1950s and late 1960s, and look as well at the experiences of individual metropolitan areas. These analyses should provide insights into how much progress has been made in eliminating the constraints to Black suburban movement, and into how much more still needs to be accomplished.

Mean Patterns: 1955-60 and 1965-70

The data in Table 2 allow us to examine overall disparities in the city-suburb destination choices of whites and Blacks and to identify changes in these disparities over the course of a decade. Presented here are mean destination propensity rates for city residential movers, suburb residential movers, and SMSA In-migrants by race and education for two migration intervals, 1955-1960 and 1965-1970. The mean values were computed over the 24 SMSAs in the study, and the rates pertain to individuals age 25 and over at the latter date in each migration interval.⁶

Perhaps the most striking findings in the table are the overall disparities that exist between whites and Blacks at each level of education and for each interval. In every comparison, white suburban propensity rates are substantially higher than Black suburban propensity rates for both city residential movers and SMSA In-migrants. Similarly, Black city propensity rates are considerably higher than white city propensity rates among suburb residential movers. Given these overall differences at both migration intervals, it is apparent that constraints on Black destination selectivity continue to exist at all socioeconomic levels.

Although the gross racial disparities in all comparisons tend to dominate, some encouraging changes can be detected between the late 1950s and late 1960s. For example, 1955-1960 racial differences in the suburb propensities of city movers increase with levels of education. The pattern is consistent with the overall residential distribution of Blacks and whites (see Figure 1), and is caused by progressive increases in the white suburb propensities with additional years of school, coupled with only slight increments in the respective Black propensities. By 1965-1970, this gap tends to narrow for the higher educational levels. White city movers with four or more years of college in the 1965-1970 period are about 3.4 times as likely to relocate in the suburbs than their Black counterparts. In the earlier period, the white suburb propensity rate was 5.3 times the Black rate. Both white and Black city-to-suburb propensity rates increased over the ten years; however, the mean data suggest a substantial rise in this rate for highly educated Black movers.⁷

Table 2: Mean 1955-60 and 1965-70 Destination Propensity Rates by Race and Education for City-Residential Movers, Suburb-Residential Movers, and SMSA In-migrants Age 25 and over, Selected SMSAs.

Race ¹	1955-60 Rates						1965-70 Rates					
	Grade School		High School		College		Grade School		High School		College	
	0-7	8	1-3	4	1-3	4+	0-7	8	1-3	4	1-3	4+
Suburb Destination Propensity Rates for City-Residential Movers												
White	.212	.250	.304	.352	.358	.368	.268	.320	.364	.440	.450	.450
Black	.043	.045	.045	.047	.057	.069	.053	.050	.060	.065	.106	.133
City Destination Propensity Rates for Suburb-Residential Movers												
White	.142	.138	.139	.132	.151	.154	.152	.140	.133	.120	.144	.155
Black	.261	.284	.313	.312	.289	.340	.450	.429	.457	.482	.508	.466
Suburb Destination Propensity Rates for SMSA In-migrants												
White	.529	.549	.575	.615	.598	.586	.601	.653	.677	.720	.703	.663
Black	.223	.206	.201	.216	.194	.204	.175	.193	.183	.230	.236	.239

Sources: U.S. Bureau of the Census. 1963. Census of Population: 1960 PC(2)-2C.
 U.S. Bureau of the Census. 1973. Census of Population: 1970 PC(2)-2C

¹1955-60 rates pertain to whites and nonwhites; 1965-70 rates pertain to nonBlacks and Blacks.

Changes in the patterns of racial disparities by education are less clear-cut for the other destination propensity rates, although two general observations can be made from the data presented. First, Black suburban movers have shown a considerable increase in their propensity to relocate in the central city--an increase which is not observed for whites. Moreover, the magnitude of this increase is not concentrated at particular education levels. We might speculate from these data that newly suburbanizing Blacks in the 1960s are experiencing a "return movement" to the central city. The second observation is less striking and pertains to changes in the suburb destination propensity rates of SMSA In-migrants. Here the overall racial disparity has tended to increase over the course of the decade, in large part due to the greater tendency of white In-migrants to locate in the suburbs. Although highly educated Black In-migrants have also increased their propensity for a suburban location, the cross-decade increase among whites is much more substantial and exists at each education level.

The mean patterns reviewed here provide little encouragement for those who look to a convergence in the residential choices of Black and white movers. Some progress has been made in this direction for higher status Black movers, and the city-to-suburb movement gap between Blacks and whites does not appear to have widened over the ten-year period. However, the evidence points also to an increased "return movement" of suburban Blacks and a greater tendency for white In-migrants to locate in the suburbs. It is clear that in both the late 1950s and late 1960s the destination choices of Black and white movers have tended to reinforce the existing central-city concentration of metropolitan Blacks.

Patterns for Individual Metropolitan Areas

The mean destination propensity rates in Table 2 tend to mask differences that exist among individual metropolitan areas in the study. Our earlier review of aggregate changes in suburban composition suggests that differences do occur both within and between regions in the city-suburb destination choices of Black and white movers. In order to underscore these differences, we examine here the destination propensity rates for five individual SMSAs. These include: Detroit, a northern SMSA whose Black population is highly concentrated in the central city; Cleveland, the SMSA in our study which experienced the greatest recent increase in its suburban Black population; Baltimore, a "border" SMSA whose suburban Black population increased markedly in status during the 1960's; Houston, a prototypic Southern SMSA that experienced large increases in its white population; and Los Angeles-Long Beach, a Western SMSA which, like Cleveland, displayed recent increases in its suburban Black population. Graphs of the Black and white destination propensity rates for each of these SMSAs, in both the late 1950's and late 1960's, appear in Figure 3.

The Detroit pattern of destination propensity rates represents an almost classic example of a situation in which the current movement of Blacks and whites serves to further reinforce an existing, highly segregated city-suburb residential distribution. An examination of suburban propensity rates for Detroit city movers (in Row A of Figure 3) reveals increases over time for both the overall level, and status-relatedness of the Black-white gap in suburban ward relocation. These increases are due to decade-wide rises in white suburban propensity at all status levels, contrasted with the low,

A. SUBURB DESTINATION PROPENSITY RATES FOR CITY-RESIDENTIAL MOVERS

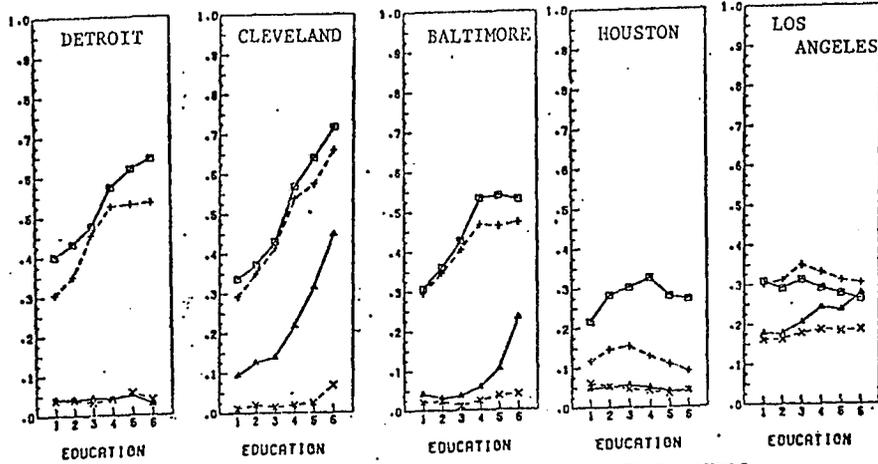
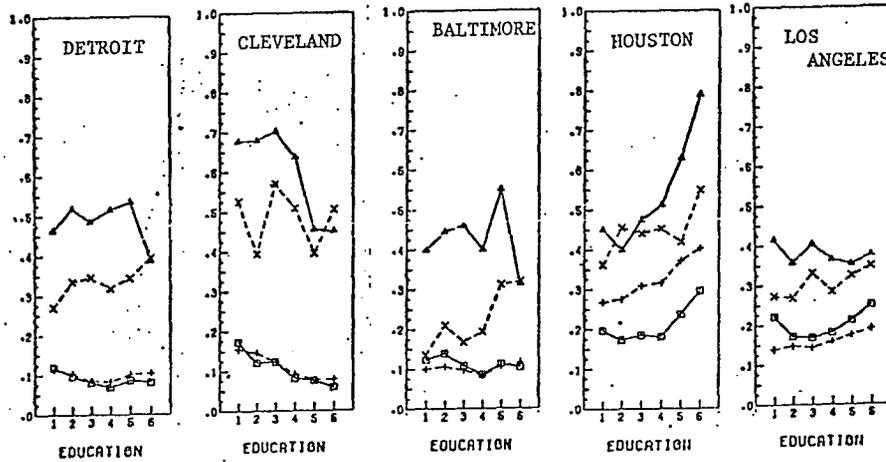


Figure 3: 1955-60 and 1965-70 Destination Propensity Rates for Residential Movers and In-Migrants (Age 25 and over) by Race and Education Level, Detroit, Cleveland, Baltimore, Houston, and Los Angeles-Long Beach SMSAs

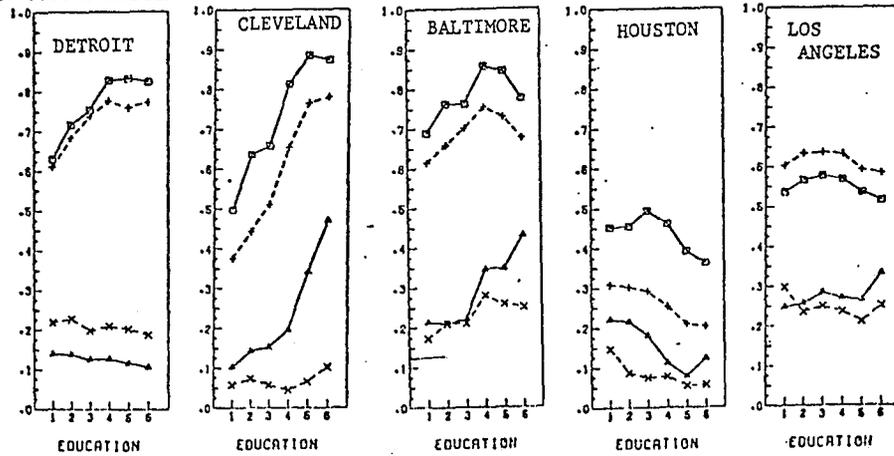
B. CITY DESTINATION PROPENSITY RATES FOR SUBURB-RESIDENTIAL MOVERS



Education Levels:

- 1 = Grade School 0-7 yrs
- 2 = Grade School 8 yrs
- 3 = High School 1-3 yrs
- 4 = High School 4 yrs
- 5 = College 1-3 yrs
- 6 = College 4+ yrs

C. SUBURB DESTINATION PROPENSITY RATES FOR SMSA IN-MIGRANTS



KEY:

- WHITES 1965-70
- BLACKS 1965-70
- x-x- BLACKS 1955-60
- +--+ WHITES 1955-60

almost constant suburban propensity of Blacks. Moreover, white city movers in both periods experienced greater levels of suburban relocation with increased levels of education. This association between status and suburban relocation is not even hinted at for Black city movers during either migration interval.

The widening of the racial disparity in Detroit is even more evident when the suburban propensity rates for SMSA In-migrants are examined (in Row C). Here, the suburban propensity of whites increases at all status levels between the late 1950s and the late 1960s, while the corresponding rates for Blacks decrease over the same interval. Furthermore, higher status Black In-migrants are less likely to locate in the suburbs than lower status Blacks. Turning finally to the city propensities of suburban residential movers (in Row B), we find that the pattern for Detroit is consistent with the mean patterns discussed above. Blacks are experiencing a greater rate of central-city return in the latter period, while white suburban propensities remain low and unchanged. Once again, the racial disparities become wider over the ten-year period.

The Cleveland pattern represents somewhat of a contrast to Detroit. Here, the suburban propensity rates for city residential movers in the earlier period bear a strong resemblance to the Detroit pattern. The suburban propensity rates of whites tend to be "elastic" to level of education, while Black suburban propensities are much lower in magnitude and relatively constant across education level. The late 1960s, however, brought about substantial increases in the suburban propensities for Black movers. Although white suburban propensity rates also increased slightly over the period, the large Black increases served to close the racial disparity in suburban relocation, overall, and to narrow the gap substantially at higher status

levels. An analagous cross-decade change in the racial gap developed for Cleveland SMSA In-migrants as well, again drastically altering the **Detroit-like racial gap that existed in the late 1950s.** Despite these changes, which tend to shrink racial differences in the suburban relocations of city movers and SMSA In-migrants, the city propensity rates of Cleveland's suburban movers tend to follow the mean patterns of change observed earlier--an increased cityward relocation of Blacks coupled with a constant cross-decade level of white city relocation.

It is, of course, true that large racial disparities in destination propensity rates exist among all Cleveland mover populations even in the most recent period. Yet the decade-wide changes in Black destination propensities that have accompanied Cleveland's recent Black suburbanization are encouraging. Increases in Black suburban relocation are apparent for all status levels, among Black central-city movers, and among Black SMSA in-migrants. And like suburbanizing whites, suburbanizing Blacks are highly selective in status.

To some extent, changes in the suburban propensity rates of Baltimore's Black movers resemble the changes in Cleveland. In both SMSAs Black city movers and Black in-migrants with college educations showed significant increases over the ten-year period in their propensities to locate in the suburbs. However, unlike Cleveland, overall increases in suburban relocation are slight among Baltimore's Blacks. These patterns, coupled with the increased city relocation of lower status Black suburban movers, may account for recent rises in status among suburban Blacks in Baltimore. As is the case in many Southern SMSAs, the suburban propensity rates of Baltimore's white movers and in-migrants display a reversed U-shaped relationship with status. White movers who are high school graduates, rather than the grade-school or college educated, are most apt to relocate in the suburbs during both migration intervals. This is consistent with previous research on Southern

city-suburb redistribution (Schmore, 1972; Kirschenbaum, 1972; Biggar and Biasiolli, 1977).

In Houston, as in other Southern SMSAs, racial differences in destination propensities have been affected largely by changes in white propensity rates. It can be seen in Figure 3 that suburban propensity rates of white city movers and white SMSA in-migrants have increased dramatically over the decade. Similarly, suburban white movers were more reluctant to choose a city destination in the late 1960s than in the late 1950s. All these changes contributed to a widening of the gap between the races. Some caution should be exercised in interpreting these changes too literally due to changes in the boundaries of the central city and SMSA between 1960 and 1970. (The city of Houston annexed an area equal to 3% of its 1970 population between 1960 and 1970, and 12% of the 1970 Houston SMSA was not included under the 1960 definition.) Yet in comparison to the white changes, changes in the Black city or suburb destination propensity rates over the course of the decade were smaller generally, or nonexistent. Of these changes, only the increased cityward relocation of Black suburban movers served to further widen the racial gap.

Of the five SMSAs examined, the racial destination propensity patterns are most unique in Los Angeles-Long Beach. During the most recent period, race differences in the suburban propensity of city movers were exceedingly small. Indeed, Black city movers with college educations are actually more likely to relocate in the suburbs than whites. Racial differences are much more evident and consistent with other metropolitan areas for the suburban propensities of SMSA in-migrants. This is also the case for the city propensities of suburban movers. Because Los Angeles-Long Beach SMSA houses a large nonBlack, nonwhite population (that makes up 26% of its 1970

nonwhite population), comparisons between the 1955-1960 (white-nonwhite) propensity rates and the 1965-1970 (Black-nonBlack) propensity rates are not direct. Nevertheless the data in Figure 3 strongly suggest that some degree of racial convergence has occurred over the decade for the suburban propensity rates of Black and white movers in Los Angeles-Long Beach.

It is difficult to account for the individual metropolitan variations in Black and white destination propensity rate patterns presented here, although others have attempted explanations. It has been suggested, for example, that the lack of Black suburbanization in Detroit can be attributed to the spatial location of the Black community which lies well within the boundaries of the city, and to the widespread availability of intracity housing for Blacks--a consequence of sustained white out-migration (Rose, 1976; Schnore, André and Sharp, 1976). The "high" levels of Black suburbanization that are observed in Cleveland and Los Angeles-Long Beach have been interpreted by some to represent mainly a spillover of central city ghettos into contiguous suburban communities (Connally, 1973; Rabinovitz, 1975; Rose, 1976). To attribute the term "black suburbanization" to changes in Houston's suburban racial composition may be highly inaccurate. The long-standing existence of Black enclaves in both cities and suburbs of Southern metropolitan areas is inconsistent with the Northern model of outward expansion to the suburbs. Indeed, many Southern SMSAs have only recently experienced peaks in white suburbanization. Finally, Baltimore, by virtue of its age and Southern border location may be experiencing a combination of Black redistribution patterns that have been attributed to both Northern and Southern metropolitan areas.

What is apparent from the present analysis is that the strong network of constraints that had prevented Black movers from entering the suburbs through the late 1950s has continued into the late 1960s for virtually all of the metropolitan areas in this study. This has been convincingly demonstrated in our analysis of Black and white destination propensity rates for city residential movers, suburb residential movers and metropolitan In-migrants. Although a few SMSAs such as Cleveland and Los Angeles-Long Beach have shown some tendencies toward reducing these constraints, the progress made even in these metropolitan areas must be viewed as negligible if a color-blind redistribution of movers is the final goal.

4. MOVEMENT STREAM CONTRIBUTIONS TO SUBURBAN RACIAL CHANGE

The previous discussion of racial differences in mover destination propensity rates has underscored the degree to which existing barriers constrain the suburban relocation of Black movers and In-migrants to levels far below those that are experienced by whites. What remains to be determined is: How are these Black-white differences in destination propensities translated into aggregate changes in the racial compositions of metropolitan suburbs? And further, what is the relative contribution of each movement stream to such change? In the analysis undertaken here, we shall evaluate the Black and white movement stream contributions to suburban racial changes in the 24 SMSAs, using migration data for the 1965-1970 interval in conjunction with an analytic framework (described in the Appendix) that was developed for this purpose.

The results of this analysis appear in Table 3. Listed in Column (1) is the Black percentage of the suburban population that would have existed in 1970 if no intrametropolitan movement or SMSA in-migration streams had taken

place over the 1965-1970 interval. Column (6) lists the change in that percentage than can be attributed all of these streams. In Cleveland, for example, the 1970 suburban Black percentage would have been 2.0 if no 1965-1970 intrametropolitan movement or in-migration had taken place. The aggregate impact of these streams, however, was to raise that percentage by +.09 to 2.9%--the actual racial composition of Cleveland's suburban population aged 25 and over. Finally, the intervening columns, (2) through (7) indicate the changes that various 1965-70 race-specific streams exert on the Black suburban percentage in column (1). Of course, both Black streams leading into the suburbs, and the white stream leading out of the suburbs serve to increase the Black suburban percentage. Contrariwise, both white streams leading into the suburbs and the black stream leading out serve to decrease the percentage suburban Black.

According to the figures in column (8), it is first of all apparent that the combined impact of all movement streams serves to effect only small changes in suburban racial compositions over the 1965-1970 interval. These small changes underscore the reinforcing influences that racial differences in suburban destination choice exert on the existing, highly segregated residential distribution. A second point to note from the figures is that the most significant changes in the Black suburban percentage are negative changes exhibited in southern SMSAs. Indeed, the combined impact of these streams serves to effect a positive change in percentage suburb Black in only three SMSAs--Cleveland, St. Louis, and Los Angeles--and in each case the Black suburban percentage is incremented by less than 1.0. Houston, on the other hand, experiences a reduction of 3.4 in its Black suburban percentage--from 11.3 to 7.9.⁸

Table 3: Changes in Percent Black of the 1970 Suburb Population Age 25 and over, that can be attributed to 1965-70 Black and White¹ Streams: City-to-Suburb Mobility, Suburb-to-City Mobility, and SMSA In-migration to the Suburbs, for Selected SMSAs.

SMSAs	Percent Suburb Black, 1970 Under Assumption of no 1965-70 Mobility or ² In-migration	Change in 1970 Percent Suburb Black that can be attributed to:						
		1965-70 City-to-Suburb Mobility Stream		1965-70 Suburb-to-City Mobility Stream		1965-70 SMSA In-Migration Stream to Suburbs		All 1965-70 Mobility and In-migration Streams
		Black	White	Black	White	Black	White	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
NORTH								
Detroit	3.8	+ .4	- .4	- .8	+ .1	+ .3	- .3	- .7
Gary-Hammond-E. Chicago	.7	+ .2	- .1	- .3	0	+ .1	- .1	- .1
Chicago	3.7	+ .4	- .4	- .8	+ .1	+ .3	- .4	- .7
Philadelphia	6.0	+ .3	- .4	- .2	+ .1	+ .5	- .6	- .2
Cleveland	2.0	+1.8	- .2	- .7	+ .1	+ .4	- .2	+ .9
St. Louis	5.7	+1.1	- .4	- .3	+ .1	+ .5	- .6	+ .2
Columbus	2.4	+ .5	- .4	-1.1	+ .2	+ .3	- .4	- .8
Cincinnati	3.1	+ .5	- .3	- .6	+ .1	+ .2	- .1	- .4
Youngstown-Warren	2.5	+ .2	- .2	- .5	+ .1	+ .1	- .2	- .6
Buffalo	1.3	+ .1	- .1	- .1	0	+ .1	- .1	0
Pittsburgh	3.2	+ .2	- .1	- .2	0	+ .1	- .2	- .2
Syracuse	.4	+ .1	0	- .1	0	+ .1	0	- .1
SOUTH								
New Orleans	12.1	+1.2	-1.9	- .3	+ .3	+ .5	-1.7	-2.0
Birmingham	21.3	+ .8	-1.7	-1.5	+ .6	+ .5	-2.1	-3.2
Baltimore	6.3	+ .8	- .7	-1.0	+ .2	+ .6	- .8	- .9
Atlanta	7.2	+1.3	- .9	-1.7	+ .2	+ .5	-1.7	-2.0
Houston	11.3	+1.0	-2.0	-1.7	+ .7	+ .7	-2.4	-3.4
Dallas	7.5	+ .2	- .9	-2.1	+ .6	+ .3	-1.7	-3.1
Louisville	3.4	+ .5	- .5	- .5	+ .1	+ .3	- .5	- .6
Fort Worth	2.0	+ .1	- .3	- .8	+ .1	+ .2	- .6	-1.1
Tampa-St. Petersburg	4.8	+ .2	- .5	- .6	+ .2	+ .6	-1.6	-1.7
Oklahoma City	2.3	+ .3	- .3	-1.0	+ .2	+ .3	- .5	- .9
WEST								
Los Angeles-Long Beach	4.3	+1.6	- .4	- .6	+ .4	+ .6	- .5	+ .6
San Francisco-Oakland	4.9	+ .6	- .4	- .5	+ .2	+ .8	- .8	- .3

Source: U.S. Bureau of the Census. 1973. Census of Population: 1970 PC(2)-2C.

¹In this and in subsequent tables, the term, white will refer to the nonBlack population when 1965-1970 data are presented.

²Percent Black of the 1970 Suburb Population Age 25 and over which would have resulted under the assumptions that 1965-70 city-to-suburb mobility, suburb-to-city mobility, and SMSA in-migration to the suburbs had not taken place. See Appendix.

In evaluating the stream contributions to the suburban racial composition, it is instructive to examine the net consequences of both races for each of the three geographic streams. It is apparent from such examination that only the city-to-suburb stream [Columns (2) and (3)] exerts a substantial net increase in the Black suburban percentage, and such increases are only observed for the three SMSAs mentioned above, which registered overall increases in percentage suburb Black. Largest net decreases in the Black suburban percentage are generally brought about through the suburb-to-city stream (Columns (4) and (5)), or the in-migration stream to the suburbs (Columns (6) and (7)). In Houston, however, each of the three streams contributed to a negative change in the suburban Black composition by 1.0 or more percentage points.

Taken together, these findings indicate that recent small increases in Black suburbanization are almost exclusively a result of Black city-to-suburb movement and lend further support to the "ghetto spillover" explanation of this phenomenon. Yet the total impact of all three streams tends to effect only small overall changes in suburban racial compositions. This corroborates what was implied by our earlier examination of destination propensity rates-- that the continuing constraints on Black residential choices serve to further reinforce existing segregation patterns.

5. ELIMINATING BLACK-WHITE DIFFERENCES IN RESIDENTIAL CHOICE: THE IMPACT ON SUBURBAN RACIAL CHANGE

In the preceding sections, we have established (1) that constraints which had prevented Black movers from locating in suburban destinations to the same degree as whites in the 1950s continued to operate in the late 1960s; and (2) that the aggregate redistribution of movers resulting from these constraints served to reinforce the existing city-suburb residential

segregation of the races. In this section, we will empirically evaluate the short-run redistributational change that would be brought about by an immediate elimination of racial differences in the city-suburb destination choices of movers and metropolitan in-migrants. This will be accomplished by computing hypothetical changes in suburban racial compositions, resulting from alternative sets of destination propensity rates for Black and white movers. Suburban racial compositions consistent with an "open suburbs" reallocation of movers can then be compared with "expected" suburban racial compositions (such as were produced by Hermalin and Farley), in order to provide insights into the pace with which complete integration can be achieved.

Actual and hypothetical Black suburban percentages for the 24 SMSAs are presented in the first three columns of Table 4. Appearing in Column (1) are the actual 1970 values for percentage suburban Black that are consistent with the data reviewed in Table 3. These racial compositions, of course, assume that actual Black and white destination propensity rates occurred during the 1965-1970 interval and serve as a basis for comparison with the hypothetical racial compositions. In Column (2) we have computed hypothetical 1970 suburban racial compositions which are based on the assumption that all of the elements of the 1965-1970 redistribution process occurred as they had in actuality with the exceptions of city movers', suburb movers', and SMSA in-migrants' destination propensity rates. It is assumed that Blacks and whites in each of the three mover populations took on their respective 1955-1960 destination propensity rate values. Moreover, the attributed 1955-1960 rates were controlled by education status within each racial group (see Appendix for further details on these procedures). The values in Column (2) were calculated in order to provide a comparison between redistributational

consequences of the actual 1965-1970 destination propensity rates [in Column (1)] and those which would have resulted from the destination propensity rates experienced by Blacks and whites ten years earlier.

Finally, in Column (3) hypothetical values for suburban racial compositions resulting from an "open suburbs" model of mover reallocation are presented. As in the previous simulation, all aspects of the actual 1965-1970 redistribution process are preserved with the exception of the destination propensity rates for the three mover populations. The assumed destination propensity rates in this simulation completely eliminate racial disparities. This applies to the suburb destination propensity rates of city movers and SMSA in-migrants, and to the city destination propensity rates of suburb movers. Although racial disparities in propensity rates are eliminated, educational disparities are preserved so that education specific destination propensity rates for the total population of movers (or In-migrants) in each group are attributed to both Blacks and whites at each education level.⁹ (Again, the reader is referred to the Appendix for more specific details.) This elimination of racial disparities coupled with a retention of educational status disparities produces a city-suburb redistribution pattern that is predicated only on status selective destination choice.

We turn first to the comparison of redistribution patterns in Columns (1) and (2) in order to ascertain whether the 1955-1960 destination choice patterns of Black and white movers--had they occurred in the 1965-1970 period--would have substantially altered the redistribution processes that actually took place in the latter period. In our review of cross-decade changes in

Table 4: Alternative Values for Percent Black of the 1970 Suburb Population Age 25 and Over resulting from actual and hypothetical destination propensity rates of 1965-70 movers and In-migrants, and from the "expected" distribution of suburban Blacks, selected SMSAs

SMSAs	Values of 1970 Percent Suburb Black assuming:					
	Actual 1965-70 Race and Educa- tion specific Destination Propensity Rates (1)	1955-60 Race and Educa- tion specific Destination Propensity Rates ¹ (2)	No Race Differences in 1965-70 Destination Propensity Rates ² (3)	"Expected" Distribution of Suburban Blacks ³ (4)	Ratios to Expected Value (1)/(4) (3)/(4) (5) (6)	
NORTH						
Detroit	3.1	3.6	7.6	15.3	.20	.50
Gary-Hammond-E. Chicago	0.6	0.8	5.3	14.7	.04	.36
Chicago	3.0	3.2	6.4	13.7	.22	.47
Philadelphia	5.8	5.7	7.7	14.5	.40	.53
Cleveland	2.9	1.5	5.8	13.0	.22	.45
St. Louis	5.9	5.2	7.5	13.0	.45	.58
Columbus	1.6	1.7	4.9	10.0	.16	.49
Cincinnati	2.7	2.7	4.8	9.9	.27	.49
Youngstown-Warren	1.9	2.3	3.8	7.9	.24	.48
Buffalo	1.3	1.3	2.8	6.2	.21	.45
Pittsburgh	3.0	3.0	3.8	6.2	.48	.61
Syracuse	0.3	0.5	1.4	2.7	.11	.52
SOUTH						
New Orleans	10.1	10.9	15.2	25.3	.40	.60
Birmingham	18.1	19.8	20.9	25.9	.70	.81
Baltimore	5.4	5.5	9.6	19.2	.28	.50
Atlanta	5.2	5.8	10.1	18.7	.28	.54
Houston	7.9	9.6	12.2	17.2	.46	.71
Dallas	4.4	5.8	8.2	13.1	.34	.63
Louisville	2.8	3.3	5.5	10.6	.27	.52
Fort Worth	0.9	1.4	4.1	8.9	.10	.46
Tampa-St. Petersburg	3.1	3.7	4.9	7.6	.41	.65
Oklahoma City	1.4	1.8	3.5	6.8	.21	.52
WEST						
Los Angeles-Long Beach	4.9	4.6	6.1	9.2	.53	.66
San Francisco-Oakland	4.6	4.7	6.0	8.6	.54	.70

Sources: U.S. Bureau of the Census. 1963. Census of Population PC(2)-2C
U.S. Bureau of the Census. 1973. Census of Population PC(2)-2C

¹The 1955-60 rates pertain to nonwhites and whites rather than to Blacks and nonBlacks. They also pertain to the SMSA as defined in the 1960 Census.

²Assumes that Blacks and nonBlacks of each education class possess the same destination propensity rate -- a weighted average of the actual 1965-70 Black and nonBlack destination propensity rates for that class. See Appendix.

³Assumes that the proportion of Blacks residing in the suburbs at each education class, equals the proportion of Blacks residing in the SMSA at each education class in 1970.

destination propensity rates (Section 2), we concluded that, for most SMSAs, the 1955-60 racial disparities in city-suburb destination choice tended to remain just as great in the 1965-70 period. These findings lead us to expect that the aggregate redistribution process associated with each should yield similar racial compositions for the suburbs of an SMSA. The data in Columns (1) and (2) generally confirm this expectation. For only four SMSAs does the Black suburban percentage change by more than 1.0 when the different propensity rates are assumed. The changes in two of these SMSAs might be expected from our earlier review: The 1955-1960 rates would have lowered Cleveland's 1970 percentage suburban Black from 2.9 to 1.5 and raised Houston's Black suburban percentage from 7.9 to 9.6. Both of these changes are consistent with the data shown in Figure 3. In two other Southern SMSAs, Birmingham and Dallas, the 1955-1960 destination propensities would have produced increases in the Black suburban percentage as well. However, the main finding from these comparisons is the general consistency in racial redistribution that results from the propensity rates of each period.

The more interesting comparison of redistribution outcomes is made between the actual suburban racial compositions [in Column (1)] and those that would have resulted from the elimination of racial differences in city-suburb destination propensities during the 1965-1970 interval [in Column (3)]. This comparison reveals that the latter, "open suburb" model of mover reallocation would have effected substantial increases in Black suburban percentages.¹⁰ For most northern suburbs, the percentage of Blacks would have more than doubled under the hypothetical redistribution. The western suburbs in Los Angeles-Long Beach and San Francisco-Oakland would have experienced somewhat more moderate gains due to the fact that minorities were less concentrated

in their central cities at the beginning of the interval. The magnitude of racial change that would have resulted in southern suburbs varies widely across SMSAs, but in most cases significant increases in the percentage of Blacks would have occurred.

The results in Column (3) clearly indicate that a reallocation of movers based on status selective (but not racial selective) city-suburb destination choices would result in meaningful short-term increases in Black suburbanization, particularly in Northern metropolitan areas. Having established this, we can now return to the question we raised at the outset of the study.

Will changes in residential integration brought about by successful "open suburbs" programs be consistent with the large potential integration levels which other scholars have shown to exist? In order to make such a comparison, we compute values for an "expected" percentage of suburban Blacks which are consistent with the Hermalin and Farley (1973) expected potential values of Black suburban representation.¹¹ These might be viewed as the optimum levels of integration that can be achieved given the current economic status levels of a metropolitan area's Blacks and whites, and these appear in Column (4). Moreover, to aid in the comparison across SMSAs we compute two ratios: the ratio of the actual Black suburban percentage to the "expected" Black percentage (in Column 5), and the ratio of the Black suburban percentage that would result from the "open suburbs" allocation of movers, to the "expected" Black percentage (in Column 6). The ratios in Column (5) tell us the degree to which the suburban racial composition brought about by the 1965-1970 redistribution process is consistent with an optimum level of metropolitan-wide integration. The ratios in Column (6) give us the same information about the racial composition that would have been effected by an "open suburbs" model of redistribution.

An examination of the actual-to-expected ratios shows that the actual 1970 suburban racial composition falls well below optimum level for most SMSAs and that this disparity is particularly large for metropolitan areas in the North. Indeed, the ratios in only 3 of 12 northern SMSAs are greater than .30, and in Gary-Hammond-East Chicago, it sinks to .04. The ratios for the two Western metropolitan areas approach 50% of what would be expected in a completely integrated residential distribution, and in southern SMSAs where the percentage of suburban Blacks has been high historically, there is wide variation (from .70 in Birmingham to .10 in Forth Worth).

The ratio values resulting from the "open suburbs" allocation of movers (in Column 6) generally show sharp increases over those associated with the actual 1965-1970 redistribution process. However, for the most part, these values are considerably less than 1.00. This seems to indicate that the residential distribution of the races resulting from an "open suburbs" allocation of movers falls far short of the mark of achieving "expected" metropolitan-wide integration levels, at least over a five-year period. This is particularly the case for northern SMSAs. In Gary-Hammond-East Chicago, for example, the "open suburbs" allocation of movers would have increased the Black suburban percentage from its actual value of 0.6 to a value of 5.3. Yet a redistribution process that would produce a metropolitan-wide integration of the races should yield a Black suburban percentage of 14.7. The other side of the redistribution process not reported in this table is the concentration of Blacks left residing in the central cities. Although a racially equitable redistribution of movers would increase the Black percentage of Detroit's suburbs from 3.6 to 7.6, the percentage of Blacks residing

in the city would only be reduced from 37.6 to 30.6. The "expected" value for Detroit's Black city percentage in an integrated metropolitan area would be 17.6. In many southern and western SMSAs an "open" allocation of movers would yield levels of integration that are much closer to those expected than is the case for metropolitan areas in the North. These SMSAs were usually much more integrated--at least in the statistical sense--at the beginning of the migration interval.

Finally we present, in Table 5, values and ratios that are analagous to those just discussed, except that in this case they pertain to specific education classes in the suburbs of Detroit, Cleveland, Baltimore, Houston, and Los Angeles-Long Beach. These values were computed in order to examine how the actual and "open suburbs" redistribution patterns differ from "expected" patterns across education classes, and to observe the uniformity of these class-specific patterns over the five SMSAs. The ratios in Column (5) indicate that a good deal of variation exists across metropolitan areas. In Detroit and Houston the actual-to-expected ratios decrease for higher levels of education--a pattern which is consistent with the destination choice data in Figure 3. However, quite the opposite pattern emerges in the two "Black suburbanizing" SMSAs of Cleveland and Los Angeles-Long Beach. Here the actual-to-expected ratios are greater at higher status levels--reflecting, in part, the status selectivity of recent Black in-migrants. Finally, the pattern for Baltimore is U-shaped, such that the highest ratios appear for the upper and lower-most education classes. This reflects, perhaps, the higher status of recent Black in-migrants and the large concentration of long-time Black residents at lower status levels.

It might also be observed that within each metropolitan area the variation across education classes associated with the "open suburbs" redistribution ratios (in Column 6) is much less than that for the actual ratios (in Column 5). This suggests that efforts to achieve metropolitan-wide integration in a particular SMSA will need to focus on the specific subgroup or subgroups of Blacks which are underrepresented in the suburbs of that metropolitan area.

In sum, our comparison of redistribution patterns associated with different sets of destination propensity rates allows us to conclude: First, that changes which occurred in the city-suburb propensities of Black and white movers between the late 1950s and late 1960s have not had a marked effect on increasing Black representation in the suburbs; second, that a redistribution process which eliminates all racial differences but preserves all status differences in movers' suburban selectivities would result in substantial short-term rises in the levels of Black suburbanization--at least in comparison with existing levels; and third, in comparison with integration levels that are "expected" to exist in metropolitan areas, the short-term integration gains brought about by "opening up" the suburbs fall far short of the mark. Although patterns vary to some degree for individual SMSAs, each of these findings is particularly applicable to the migration and redistribution processes of the northern metropolitan areas in our study.

Table 5: Alternative Values for Percent Black of the 1970 Suburb Population Age 25 and Over by Classes of Education, resulting from actual and hypothetical destination propensity rates of 1965-70 movers and in-migrants, and from the "expected" distribution of suburban Blacks. Detroit, Cleveland, Baltimore, Houston, and Los Angeles-Long Beach SMSAs.

Values of 1970 Percent Suburb Black assuming:								
SMSAs	Actual 1965-70 Race and Educa- tion specific Destination Propensity Rates		1955-60 Race and Educa- tion specific Destination Propensity Rates		No Race Differences in 1965-70 Destination Propensity Rates	"Expected" Distribution of Suburban Blacks	Ratios to Expected Value	
	(1)	(2)	(3)	(4)	(1)/(4)	(3)/(4)		
Detroit								
Grade School:	0-7	7.9	8.8	13.9	27.6	.29	.50	
Grade School:	8	3.2	3.6	6.8	15.3	.21	.44	
High School:	1-3	4.3	4.6	9.6	20.9	.21	.46	
High School:	4	2.3	2.7	6.7	12.9	.18	.52	
College:	1-3	1.8	2.2	5.9	11.2	.16	.53	
College:	4+	0.8	1.0	3.4	6.2	.13	.55	
Cleveland								
Grade School:	0-7	5.0	3.5	10.4	25.0	.20	.42	
Grade School:	8	2.5	1.8	5.0	12.8	.20	.39	
High School:	1-3	3.9	2.1	8.2	19.7	.20	.42	
High School:	4	2.5	1.2	5.2	11.3	.22	.46	
College:	1-3	2.9	1.3	4.8	9.9	.29	.48	
College:	4+	1.9	.9	2.8	5.1	.37	.55	
Baltimore								
Grade School:	0-7	12.1	12.6	17.2	32.2	.38	.53	
Grade School:	8	4.5	4.8	8.4	18.8	.24	.45	
High School:	1-3	5.3	5.6	10.8	24.2	.22	.45	
High School:	4	3.8	3.9	7.9	15.3	.25	.52	
College:	1-3	3.3	3.1	6.7	12.3	.27	.54	
College:	4+	3.3	2.4	5.0	9.2	.36	.54	
Houston								
Grade School:	0-7	18.9	21.1	23.1	29.3	.65	.79	
Grade School:	8	10.2	11.2	14.3	20.4	.50	.70	
High School:	1-3	8.7	9.8	14.0	20.6	.42	.68	
High School:	4	4.9	6.2	9.8	14.0	.35	.70	
College:	1-3	2.5	3.5	6.2	9.6	.26	.65	
College:	4+	1.6	2.3	4.0	6.5	.25	.62	
Los Angeles-Long Beach								
Grade School:	0-7	6.6	6.5	8.3	13.0	.51	.64	
Grade School:	8	3.9	3.8	5.0	8.5	.46	.59	
High School:	1-3	6.1	5.8	7.8	12.2	.50	.64	
High School:	4	4.7	4.2	5.6	8.6	.55	.65	
College:	1-3	5.0	4.5	5.9	8.4	.60	.70	
College:	4+	3.0	2.5	3.3	4.4	.68	.75	

Sources: U.S. Bureau of the Census. 1963. Census of Population PC(2)-2C
U.S. Bureau of the Census. 1973. Census of Population PC(2)-2C

6. SUMMARY AND IMPLICATIONS

This study was undertaken to enable urban scholars and policymakers to estimate how much metropolitan-wide residential integration could be accomplished in the short-run if successful "open suburbs" programs were to be implemented. Although recent studies have indicated that the economic potential now exists to bring about a high degree of residential integration, the aggregate migration and redistribution processes which are constantly at work in large metropolitan areas tend to dictate the pace with which this potential can be realized. Through the analysis of migration and residential mobility data from 24 large SMSAs, we have examined the pace of recent residential integration as it has been mediated by these demographic processes in the past. We have also looked at the prospects for future changes in this pace that would accompany a substantial "opening" of the suburbs to Blacks. In each part of the study we focused exclusively on one dimension of racial integration--the suburbanization of metropolitan Blacks.

The relationship between migration and redistribution, on the one hand, and suburban racial change, on the other, is closely linked to racial differences in movers' destination selections. An examination of Black-white differences in suburban destination selectivity reveals the extent to which racially discriminatory mechanisms are operating in the aggregate redistribution process. In both the late 1960s and late 1970s, according to our study, there existed wide disparities in the suburban destination propensities of Black and white movers. During each period, white city movers and in-migrants to the metropolitan area were far more likely to relocate in the suburbs than were Blacks. Moreover, Black suburban movers were much more likely than whites to relocate in the central city, a tendency that seems to have increased over the decade. A few metropolitan areas such as

Cleveland and Los Angeles-Long Beach experienced significant increases in Black suburbanward relocation in the late 1960s. Yet even in these SMSAs the overall racial disparity in suburban destination selectivity remained large for the most recent period.

We undertook further analyses to assess the aggregate impact of these movement patterns on suburban racial change and found, not surprisingly, that the destination selectivity patterns in each period did not contribute to a great deal of racial change for most metropolitan suburbs. The small percentage of Blacks in northern and western suburbs remained relatively unchanged as a result of these movement patterns. In southern SMSAs the redistribution process served to decrease the Black suburban percentage. The major conclusions that emerge from our study of recent movement patterns and suburban racial change are: that constraints which had prevented Black movers from locating in suburban destinations to the same degree as whites in the late 1950s continued to operate in the late 1960s; and that the aggregate redistribution of movers and in-migrants resulting from these constraints served to reinforce existing city-suburb racial segregation patterns.

The final portion of the study was concerned with estimating the short-run increase in Black suburbanization that could be brought about by successful efforts at "opening up" suburbs to Blacks. This estimation was undertaken by simulating a hypothetical redistribution of movers and in-migrants in each of the 24 SMSAs. The simulated redistribution assumed a complete elimination of Black-white differences in mover suburban selectivity, but preserved all other elements of the 1965-70 redistribution process. Our findings from this simulation indicate that meaningful gains in Black

suburbanization could be effected in a short five-year time period if the racial differences in suburban destination propensity could be eliminated. However, even these levels of Black suburbanization do not measure up to the levels that would arise from an "expected" metropolitan-wide integration which, according to other scholars, is commensurate with the current economic position of Blacks. Based on these findings we conclude that an immediate and complete elimination of racial discrimination toward suburban entry would bring about increases in Black suburbanization that are well above existing levels. Yet these immediate increases would fall far short of achieving metropolitan-wide racial integration.

In sum, our examination of the metropolitan redistribution process suggests that the righting of past wrongs--through the elimination of racial residential segregation that has evolved over decades of discrimination--will at best occur both slowly and gradually. This slow pace is largely attributable to the demographic fact of life that residential movement occurs among only a subset of the total population in a given interval of time. The massive redistribution of both Blacks and whites that would be necessary to achieve city-suburb (not to mention interneighborhood) racial integration would require more than a five- or ten-year period even if the constraints to Black suburban entry were eliminated. Our evidence from the 1950s and 1960s suggests that the elimination or substantial reduction of these constraints is not imminent. Even in those metropolitan areas which experienced recent increases in Black suburbanization, there exist large disparities in the suburban destinations of white and Black movers at all status levels. Finally, we reemphasize that our measure of racial integration--the percentage of Blacks in SMSA suburbs--greatly overstates the degree of integration that is

occurring at the neighborhood level. Studies which have looked at the quality of life experienced by recently suburbanized Blacks find few parallels with suburban whites (Rabinovitz, 1973; Rose, 1976). Indeed, the "ghetto spillover" characterization of current Black suburbanization may be a fair one.

The implications of our study for long-term strategies directed toward achieving greater racial unity, improving the economic position of minorities, and redeveloping declining central cities might best be assessed by urban planners and policymakers. However, the continuing constraints which are being imposed upon the suburban entry of Black movers and in-migrants, as documented here, argue strongly for the vigorous enforcement of existing equal housing laws, and for sustained efforts directed toward the elimination of informal discriminatory housing practices that are prevalent in both public and private institutions. Indeed, Glazer's position that "(the residential) integration of Blacks is occurring" (Glazer, 1974: 110) does not coincide with the data we have presented.

Nevertheless, it is also clear from our study that the sole or heavy reliance on metropolitan-wide residential integration as a means to achieving policy objectives in the short run would be ill-advised. Our findings suggest that these objectives might be brought about sooner if emphasis is placed on such "interim" measures as cross-district bussing, or reverse commuting programs for central-city residents, and if more serious consideration is given to policies aimed at improving the existing social, economic, and physical living environments of central-city residents.

FOOTNOTES

1. Advocates of "opening up" the suburbs are not without their critics. Glazer (1974) feels that residential integration of middle class Blacks is currently taking place and that greater emphasis should be given to materially aiding poor, unstable Black families in the central core. Harrison (1974) argues that dispersal will not contribute significantly to Blacks' ability to secure employment, but that present levels of minority unemployment might be more closely linked to discrimination. Still others see the concentration of Blacks in the central city as a means of consolidating their political power. Among those espousing the latter views, ghetto enrichment programs represent more than "interim" measures.
2. Farley (1970) distinguishes between three types of Black suburbanizing communities: older suburbs which are experiencing population succession, new developments designed for Black occupancy, and impoverished suburban enclaves. The former might be likened to a "ghetto spillover" effect. Rose (1976) discusses two types of Black entry communities: ghettoizing or spillover communities, and more dispersed "Black colonies," which largely draw movers from other ring communities. Racial compositions are predominantly Black in most of these communities.
3. Black residential movement rates tend to be somewhat higher than white rates, but like white rates, they remain fairly constant from year to year. Although the reasons given by Blacks in explaining their moves differ from those given by whites (for example, Black moves are more likely to be "forced"), McAllister, Kaiser, and Butler (1972) find that their greater levels of movement can be explained by their greater tendency to be renters. Their nationwide survey shows that Black renters are less likely to move than white renters, and Black owners are about as residentially stable as white owners.
4. Throughout this study we continually refer to "Blacks" and "whites" for convenience, while in most instances our data are actually separated according to white-nonwhite and nonBlack-Black distinctions. In

Columns (1) through (8) of Table 1, the figures actually do pertain to Blacks and whites. In Columns (9) and (10), and in the remainder of the tables and figures, data taken from the 1960 report (U.S. Bureau of the Census, 1963) pertain to whites and nonwhites, while data taken from the 1970 report (U.S. Bureau of the Census, 1973) pertain to nonBlacks and Blacks.

5. The terms "residential mobility" and "migration" have been used somewhat indiscriminately in the literature. The former tends to denote local movement usually within the same labor market area, whereas the latter has been used to denote interstate, intermetropolitan and even intercounty movement. Throughout this study, we use the term residential mobility to refer to intrametropolitan movement, and the term migration to refer to movement into and out of the metropolitan area.

6. In making longitudinal comparisons here and in later tables, the reader should be alerted to the following: (1) the racial distinction in the 1955-60 rates is made between whites and nonwhites, while the distinction in 1965-70 is made between nonBlacks and Blacks; and (2) the relative sizes of the cities and suburbs of many SMSAs have changed during the 1955-70 period due to annexations and changes in the SMSA definition. These discrepancies should not drastically affect the over-time comparison of mean rates for the 24 SMSAs. Comparisons for individual SMSAs, however, may be distorted by these inconsistencies, and such instances will be noted in the text.

7. In this and subsequent analyses which: (1) compare Black and white mobility patterns for specific education levels; or (2) standardize Black and white rates by level of education, it is implicit that education serves as a control for socioeconomic status. Although education level represents a crude indicator for status, and in particular for income, its use in this study is dictated by its availability in both the 1960 and 1970 census mobility reports. In performing income-specific mobility comparisons for the 1965-70 period in the Philadelphia SMSA, which are comparable to our education-specific comparisons in Table 2, Cottingham (1975) obtains similar results. She notes, however, that even income represents a crude control measure due to the greater wealth accumulations of whites at each income level.
8. The change figures in Column (8) of Table 3 are not directly comparable to those in Column (8) of Table 1 because the Table 3 changes: (1) pertain to the 1965-70 interval rather than the 1960-70 interval; (2) pertain only to the surviving population age 25 and over in 1970 (i.e., natural increase is not taken into account); and (3) do not take into account the impact of the out-migration stream from the suburbs to points outside the SMSA. The latter two exclusions from the Table 3 change figures would tend to understate Black percentage increases due to the greater fertility of Blacks than whites, and the greater tendency of whites to out-migrate.
9. By attributing to Black and white movers at each education class the propensity rate for movers in the total population at that education class, the actual number of movers in each stream is preserved, while the racial composition is changed to be consistent with the assumption of equal destination propensity rates for both races at each education level.

10. It is assumed that the chief short-term effect of "opening" the suburbs, on the redistribution process, will be to equalize the city-suburb destination choices of movers and that the incidence of mobility among both Black and white residents will be generally unaffected. In the longer run, it is likely that open suburb measures will reduce the mobility incidence of Blacks if, as Straits (1968) suggests, their current high levels of movement are due in part to their continual dissatisfaction with housing that is available to them.

11. Our measures differ slightly from those produced by Hermalin and Farley (1973). Their "expected" measure assumes that Blacks at each status level are represented in the suburbs to the same degree as are whites. Our "expected" measure assumes that Blacks at each level are represented in the suburbs to the same degree as the total population. The discrepancy between the two tends to be slight in predominantly white metropolitan areas, and in fact Hermalin and Farley employ the measure we use later in their analysis (p. 607). As we noted in Section II, our definition of metropolitan area, measure of status, and focus on individuals differ from those used to compute the Hermalin and Farley measure. These differences arise from data constraints.

APPENDIX

Computation of Suburban Racial Compositions in Tables 3, 4 and 5

The values for the suburban racial composition resulting from actual and assumed 1965-70 migration streams were arrived at by employing an analytic framework which was developed to examine the determinants and components of city-suburb redistribution over a migration interval,* and data from the 1970 Census subject report, Mobility in Metropolitan Areas.** The framework consists of demographic accounting equations that can be used to calculate the population sizes of a metropolitan area's city and suburbs at the end of a migration interval, given values for their respective size at the beginning of the interval, and a set of migration parameters associated with the following movement streams: Intrametropolitan suburb-to-city and city-to-suburb streams, In-migration streams to the city and suburbs from outside the SMSA, and Out-migration streams from the city and suburbs to places outside the SMSA.

In the series of analyses presented here, three of these parameters: (1) the suburb destination propensity rate of city-residential movers; (2) the city destination propensity rate of suburb-residential movers; and (3) the suburb destination propensity rate of SMSA in-migrants, were given various combinations of actual and hypothetical values while the remainder of the population and migration parameters retained their actual values. The resulting hypothetical suburb populations, for Blacks and whites, were then used to compute the values of the suburban racial compositions reported in Tables 3, 4 and 5. Presented below are the demographic accounting equations and parameters associated with the analysis framework, and a description of the

* Described in: W.H. Frey, "Population Movement and City-Suburb Redistribution: An Analytic Framework," Center for Demography and Ecology Working Paper 77-15, University of Wisconsin-Madison, 1977.

**U.S. Bureau of the Census. Census of Population: 1970 PC(2)-2C. 1973.

Appendix Figure A-1: Movement Streams and Associated Framework Parameters

IA - INTRAMETROPOLITAN CITY-TO-SUBURB MOBILITY

- i_c MOBILITY INCIDENCE RATE OF CITY RESIDENTS
The rate at which city residents* move anywhere within the SMSA between $t, t+n$
- $p_{c \rightarrow s}$ SUBURB DESTINATION PROPENSITY RATE OF CITY MOVERS
The rate at which city residential movers relocate to a suburb destination between $t, t+n$

IIA - IN-MIGRATION TO THE CITY FROM OUTSIDE THE SMSA

- M_o MIGRATION INTO THE SMSA
Total number of migrants into the SMSA between $t, t+n$
- $p_{o \rightarrow c}$ CITY DESTINATION PROPENSITY RATE OF IN-MIGRANTS
The rate at which SMSA In-Migrants relocate to a city destination between $t, t+n$

IIIA - OUT-MIGRATION FROM THE CITY TO OUTSIDE THE SMSA

- $m_{c \rightarrow o}$ OUT-MIGRATION INCIDENCE RATE OF CITY RESIDENTS
The rate at which city residents migrate out of the SMSA between $t, t+n$

IB - INTRAMETROPOLITAN SUBURB-TO-CITY MOBILITY

- i_s MOBILITY INCIDENCE RATE OF SUBURB RESIDENTS
The rate at which suburb residents* move anywhere within the SMSA between $t, t+n$
- $p_{s \rightarrow c}$ CITY DESTINATION PROPENSITY RATE OF SUBURB MOVERS
The rate at which suburb-residential movers relocate to a city destination between $t, t+n$

IIB - IN-MIGRATION TO THE SUBURBS FROM OUTSIDE THE SMSA

- M_o MIGRATION INTO THE SMSA
Total number of migrants into the SMSA between $t, t+n$
- $p_{o \rightarrow s}$ SUBURB DESTINATION PROPENSITY RATE OF IN-MIGRANTS
The rate at which SMSA In-Migrants relocate to a suburb destination between $t, t+n$

IIIB - OUT-MIGRATION FROM THE SUBURBS TO OUTSIDE THE SMSA

- $m_{s \rightarrow o}$ OUT-MIGRATION INCIDENCE RATE OF SUBURB RESIDENTS
The rate at which suburb residents migrate out of the SMSA between $t, t+n$

*residents who do not out-migrate between $t, t+n$.

assumptions that were made in computing the values for Percent Suburb Black in the text tables.

Accounting Equations and Framework Parameters

The following relationships represent the demographic accounting equations which relate metropolitan city and suburb population sizes at the end of migration interval t, t+n to their respective population sizes at time t and framework parameters associated with various movement streams.*

$$P_{c*}^{t+n} = sP_c^t - sP_{c \rightarrow o}^t - s(P_c^t - P_{c \rightarrow o}^t)i_{c \rightarrow s} + s(P_s^t - P_{s \rightarrow o}^t)i_{s \rightarrow c} + sM_o p_{o \rightarrow c} \quad (1)$$

$$P_{s*}^{t+n} = sP_s^t - sP_{s \rightarrow o}^t - s(P_s^t - P_{s \rightarrow o}^t)i_{s \rightarrow c} + s(P_c^t - P_{c \rightarrow o}^t)i_{c \rightarrow s} + sM_o p_{o \rightarrow s} \quad (2)$$

The framework parameters associated with each stream are defined in Appendix Figure A-1. The population parameters and survival rates are as follows:

P_{c*}^{t+n} = city population age k and over at time t+n

P_{s*}^{t+n} = suburb population age k and over at time t+n

P_c^t = city population age k-n and over at time t

P_s^t = suburb population age k-n and over at time t

s = appropriate survival rate for each mover, migrant, or nonmover group

Assumptions Made in Text Tables

The values for Percent Suburb Black in the text tables were calculated by employing accounting equation, (2), separately, for the two race (Black and nonBlack) subpopulations of each SMSA, or for twelve race-education specific subpopulations of each SMSA. In the first instance, Percent Suburb Black

* Because in the present analysis, the framework is applied to the population age 25 and over at the end of a five-year migration interval (1965, 1970), it is assumed k is greater than n and a fertility component is not included.

equals:

$$\frac{P_{s^*.b}^{t+n}}{P_{s^*.w}^{t+n} + P_{s^*.b}^{t+n}} \times 100.0$$

where subscript w denotes whites (nonBlacks)
subscript b denotes Blacks

and in the second instance Percent Suburb Black equals:

$$\frac{\sum_{e=1}^6 P_{s^*.be}^{t+n}}{\sum_{e=1}^6 (P_{s^*.we}^{t+n} + P_{s^*.be}^{t+n})} \times 100.0$$

where subscript e = 1, 2...6 levels of education

In each application of equation (2) the destination propensity parameters $P_{c \rightarrow s}$, $P_{s \rightarrow c}$ and $P_{o \rightarrow c}$ were given hypothetical values while actual values were attributed to the remaining population and framework parameters. It is therefore more convenient, for calculation purposes, to rewrite equation (2) as follows:

$$P_{s^*}^{t+n} = s(P_s^t - P_{s \rightarrow o}^t) - s(P_s^t - P_{s \rightarrow o}^t)i_s P_{s \rightarrow c} + s(P_c^t - P_{c \rightarrow o}^t)i_c P_{c \rightarrow s} + sM_o P_{o \rightarrow s} \quad (2a)$$

where $t=1965$, $n=5$, $k=25$, and s represents the appropriate survival rate for each mover, migrant, or nonmover group

The values of the following expressions can then be obtained from the Census:

$$s(P_s^t - P_{s \rightarrow o}^t) = \begin{aligned} & 1965-70 \text{ nonmobile suburb population} \\ & + 1965-70 \text{ within-suburb movers} \\ & + 1965-70 \text{ city-to-suburb movers} \end{aligned}$$

$$s(P_c^t - P_{c \rightarrow o}^t)i_c = \begin{aligned} & 1965-70 \text{ city-to-suburb movers} \\ & + 1965-70 \text{ within-city movers} \end{aligned}$$

$$s(P_s^t - P_{s \rightarrow o}^t)i_s = \begin{aligned} & 1965-70 \text{ suburb-to-city movers} \\ & + 1965-70 \text{ within-suburb movers} \end{aligned}$$

$$sM_o = \begin{aligned} & 1965-70 \text{ SMSA in-migrants to the city} \\ & + 1965-70 \text{ SMSA in-migrants to the suburbs} \end{aligned}$$

The actual values for Blacks and nonBlacks of the Cleveland SMSA taken from the 1970 Census report are as follows:*

*The figures below differ slightly from those in the published Census report since the residual category of residents, "persons abroad in 1965 or persons whose 1965 residence was not reported," has been allocated to other categories.

Subgroup	$s(P_s^t - P_{s \rightarrow o}^t)$	$s(P_s^t - P_{s \rightarrow o}^t)i_s$	$s(P_c^t - P_{c \rightarrow o}^t)i_c$	sM_o
Blacks	12228	6200	64028	10721
NonBlacks	588525	172438	139973	85364

In like manner, the actual values for $p_{c \rightarrow s}$, $p_{s \rightarrow c}$ and $p_{o \rightarrow s}$ can be obtained from the Census:

$$p_{c \rightarrow s} = \frac{(1965-70 \text{ city-to-suburb movers})}{(1965-70 \text{ city-to-suburb movers} + 1965-70 \text{ within-city movers})}$$

$$p_{s \rightarrow c} = \frac{(1965-70 \text{ suburb-to-city movers})}{(1965-70 \text{ suburb-to-city movers} + 1965-70 \text{ within-suburb movers})}$$

$$p_{o \rightarrow s} = \frac{(1965-70 \text{ SMSA in-migrants to the suburbs})}{(1965-70 \text{ SMSA in-migrants to the city} + 1965-70 \text{ SMSA in-migrants to the suburbs})}$$

Actual values for Cleveland are:

Subgroup	$p_{c \rightarrow s}$	$p_{s \rightarrow c}$	$p_{o \rightarrow s}$
Blacks	.172	.645	.208
NonBlacks	.490	.093	.794

Substitution of Cleveland's actual values for all population and framework parameters into equation (2a) yields a 1970 suburban population of 21483 for Blacks age 25 and over, and a 1970 suburban population of 708774 for nonBlacks age 25 and over. The resulting 1970 value for Percent Suburb Black = $(21483)/(21483 + 718774) \times 100 = 2.9$, the actual value reported for Cleveland in Table 4. In like manner, the substitution of various hypothetical destination propensity parameters into equation (2a) for different racial, or race-education subgroups will yield 1970 population figures for those groups, and associated percent suburb Black values, that would have resulted under the assumed destination propensity rates.

Assumptions made in computing Percent Suburb Black figures in the text tables are as follows:

Table 3: The columns of Table 3 represent values for Percent Suburb Black or changes in the value of Percent Suburb Black that would have resulted

if one or more streams had not taken place. In column (1) it is assumed that no intrametropolitan movement of SMSA in-migration had taken place. Hence, all destination propensity rates for the Black and NonBlack subgroups are assumed to be zero. In columns (2) through (7), one of these parameters for each race assumes its actual value while the remainder are given zero values. Column (8) assumes that all destination propensity rates for Blacks and Non-Blacks retained actual values.

Table 4: Column (1) denotes actual 1970 values for Percent Suburb Black in each SMSA. In Column (2), the destination propensity rates for each race-education subgroup was assumed to equal that of its corresponding subgroup over the 1955-60 migration interval.* Black and nonBlack total suburb population sizes were calculated by adding together hypothetical 1970 suburban population sizes for the six Black education subgroups, and for the six nonBlack education subgroups, respectively. In Column (3), both Blacks and nonBlacks of each education class were assumed to possess the same destination propensity value. The value attributed to each education class represents the weighted mean of the Black and nonBlack rates for that Class. In Cleveland, for example, the actual value for $p_{c \rightarrow s}$ is .448 for Black college graduates and .717 for nonBlack college graduates. In this analysis, both Black and nonBlack college graduates were given the value .671, representing the weighted mean of the two actual values. In like manner, weighted means are attributed to Blacks and nonBlacks of each other education class, and for each destination propensity parameter. As in Column (2), the total suburb population sizes for Blacks and nonBlacks were obtained by summing up the six education subgroups sizes for

*These rates were computed from: U.S. Bureau of the Census, Census of Population: 1960 PC(2)-2C. 1963. In this report race was designated as nonwhite and white rather than Black and nonBlack.

Blacks, and the six education subgroup sizes for whites.

Table 5: Columns (1) (2) and (3) report values for education-specific subgroups which are based on the same assumption used to compute values for the total population reported in corresponding columns of Table 4.

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