LIFECOURSE MIGRATION OF METROPOLITAN WHITES AND BLACKS AND THE STRUCTURE OF DEMOGRAPHIC CHANGE IN LARGE CENTRAL CITIES*

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Lifecourse (age-related) migration patterns played an important role in the racially selective suburbanization of metropolitan populations that took place in the immediate postwar decades. During this period, the members of successive white population cohorts chose suburban destinations just prior to the ages of greatest residential stability, and tended to remain in suburban locations for the remainder of the lifecourse. At the same time, members of black population cohorts were effectively barred from selecting suburban destinations at all ages of the lifecourse. Recent changes in family formation patterns and race relations have prompted expectations that lifecourse migration patterns will change in ways that should bring about a more racially balanced city–suburb redistribution process. This investigation adopts the demographer's cohort-component projection model to examine these expectations for six large SMSAs. White and black lifecourse migration patterns have become more alike in the post–1970 period; yet, significant racial disparities still exist. Recent lifecourse migration patterns do not imply an eventual metropolitan-wide integration of the races.

INTRODUCTION

Characterizations of the American central city as "the hole of the doughnut" (Breckenfield, 1977) or as a "chocolate city surrounded by vanilla suburbs" (Farley et al., 1978) reinforce widely held images of the social morphology that has evolved within the nation's large, older metropolitan areas. The origins of this phenomenon must, to some degree, be attributed to the historical forces of ecological expansion (Hawley, 1971; Zimmer, 1975; Long, 1981). However, it was the massive and racially selective suburbanization movement that followed World War II which was *most* directly responsible for present-day disparities in city–suburb population sizes and racial compositions (Taeuber and Taeuber, 1965; Glenn, 1973; Frey, 1980). The primary participants in this movement were members of a rising middle-class, white population—upwardly selected on socioeconomic characteristics and engaged, to a large extent, in childrearing (Foote et al., 1960). At the same time black city residents at all status levels were prevented from moving into suburban locations due to a variety of well-known discriminatory mechanisms (Taeuber, 1975).

The concurrent processes of white suburbanization and black centralization led to city populations that were disproportionately comprised of blacks and low-income whites and to the associated problems of private disinvestment, reduced public services, environmental deterioration and crime. In observing these demographic trends, urban analysts began to express concern that an irreversible "vicious cycle" of racially selective movement had been set in place which would cause cities to become increasingly smaller, blacker and poorer (Gorham and Glazer, 1976; Bradbury et al., 1982). It is in the face of this concern that much interest has become directed toward two recent demographic changes.

The first of these involves a changing preference on the part of metropolitan whites for a central-city residence. Originally termed "gentrification," in allusion to the small number of high-income households who initi-

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ated the phenomenon, this movement is now thought to encompass a broad enough segment of the metropolitan white population to moderate previously high levels of central-city "white flight" (Laska and Spain, 1980). The second demographic change represents a more fundamental shift from the past. It involves a marked increase in the level of black movement to the suburbs and suggests that the black population is, at last, permitted to participate in the suburbanization process (Clark, 1979; Long and De Are, 1981). Neither of these demographic changes has yet effected appreciable alterations in the population sizes or racial compositions of large central cities. However, their potential importance lies with their link to broader societal changes that may lead to greater white and black parity in the suburbanization process.

The increased preference for city residences among whites has been tied to shifts in family formation patterns, particularly evident among individuals born after 1945, which have resulted in dramatic increases in the formation of single, childless, and two-earner households (Masnick and Bane, 1980; Cherlin, 1981). Such households, it is held, will give greater preference to central residential locations than did their counterparts of the previous generation, who were more heavily engaged in childrearing (Alonso, 1980; Long, 1980). The greater suburban movement of blacks can be linked to rising black social status, some elimination of past discriminatory practices and improvements in race relations, which appear to be reducing the constraints that have prevented blacks from fulfilling their preferences for suburban locations. This opening of suburban residential opportunities also tends to be most evident for blacks born since 1945 (Pettigrew, 1980).

Clearly, the societal changes just mentioned can lead to some dampening of the "vicious cycle" of racially selective suburbanization. However, it is important to take cognizance of the demographic structure that underlies these changes. Because both of the new redistribution tendencies are being initiated primarily by young adult members of the population, any narrowing of the racial disparity in suburbanization will occur only gradually—as successive white and black cohorts enter and rise into the young adult ages. It is the purpose of this investigation to assess the significance of the new white and black redistribution patterns by taking explicit account of their demographic structure. In so doing, it will adopt the demographer's cohort-component model of population change as its perspective.

The cohort-component model is appropriate for examining the changes in population redistribution that are introduced on a cohort-by-cohort basis because the model treats long-term population change as a product of *age-related demographic patterns* associated with successive birth cohorts as they pass through the lifecourse. When viewed from this perspective, the postwar suburbanization process is seen as the result of two distinct lifecourse migration patterns: a white pattern, wherein suburban locations were selected by a majority of cohort members before they passed into the least mobile ages of the lifecourse; and a black pattern, wherein only central-city locations were available to most cohort members at all ages of the lifecourse. If the arguments presented above are correct, however, these race-specific lifecourse migration patterns should begin to differ with the younger white and black cohorts. For these and subsequent cohorts, it is expected that white age-specific migration patterns will become less suburban directed than in the past, and that black age-specific migration patterns will more closely resemble those of whites. The eventual outcome, it is suggested, will be a greater residential integration of the races within the metropolitan areas.

The analyses undertaken here will examine these claims by comparing the lifecourse (age-related) migration patterns over three postwar decades for whites and blacks in six selected metropolitan areas. It will focus on age-specific measures of movers' city or suburb destination selection called *destination propensity rates*. These cross-decade comparisons will permit detection of significant changes in lifecourse migration patterns that are introduced by the younger cohorts. A second part of the analysis will show the potential redistribution effects of the lifecourse migration patterns just contrasted. It will employ cohort-component projection methodology to compare the projected city–suburb redistribution which would result if future black and white cohorts adopted post-1970, age-specific destination propensity rate patterns with the projected redistribution which would result if earlier patterns were adopted by these cohorts. These projection comparisons will indicate the extent to which the new lifecourse migration patterns signify a more racially balanced city–suburb redistribution process.

The comparisons of lifecourse destination selection patterns will be operationalized strictly on the basis of age-specific behavior. However, the anticipated changes in these patterns are expected to reflect changes in underlying societal influences which affect destination preferences (in the case of whites) and constraints that have prevented the fulfillment of preferences (in the case of blacks) in ways that are discussed below.

White and Black Lifecourse Migration in the Immediate Postwar Decades

During the 1950s and 1960s, the white population followed a fairly well-established lifecourse pattern of city–suburb destination selection. The black population, in contrast, displayed extremely low levels of suburban selection at all ages. Before examining the primary influences on these destination selection patterns, however, the reader should be reminded of an important empirical regularity in all migration behavior: The act of migration is a strongly age-related phenomenon which is far more likely to take place among young adults below age 35 than among the older segment of the population (Thomas, 1938; Shryock, 1964; Long and Boertlein, 1976). This implies that as a white or black cohort progresses through the lifecourse, its greatest contribution to population redistribution will be made in the early adult years before a large share of cohort members reach the less mobile, more sedentary ages. It also attaches particular importance to the *destinations of moves that take place immediately before the more sedentary years*, because the contributions these moves make to their destination population sizes are relatively permanent.

Available evidence suggests that the age-related destination selection patterns of whites, during the 1950–70 period, were tied to city or suburb location preferences associated with traditional family life-cycle stages (Johnston, 1971; Glick and Long, 1976; Frey, 1978c; Frey and Kobrin, 1982). Abu-Lughod and Foley's (1960) analysis, which documents the housing and location choices of the median American family at each of six stages of the life cycle, finds that the family's first several moves were actually directed to a central-city destination. However, these city-destined moves were made in the early ("prechild" and "childbearing") stages of the life cycle and each of these was of fairly short duration. Later moves to suburban destinations were associated with the more sedentary ("child rearing," "child launching," "postchild" and "widowhood") stages of the life cycle and were generally associated with long durations of stay. While the study showed suburban destinations to be less prominent for individuals who did not conform to traditional life-cycle stages (such as single adults living alone, childless couples, single-parent households), the stages of the family life cycle constituted a dominant lifecourse pattern for a series of white cohorts that formed households during the immediate postwar years (Glick, 1977). The large number of suburb-destined moves, which accumulated as each of these cohorts reached the more stable ages in its lifecourse, contributed significantly to the suburban population growth that occurred in the 1950s and 1960s (Foote et al., 1960).

While the black population also participated in the postwar baby boom and probably would have preferred the suburbs during the child-rearing portions of the lifecourse, its low level of suburban selection was due to a lack of access rather than preference. Evidence shows that the extremely low levels of suburban-destination selection that characterized the black population, in the aggregate, did not vary appreciably across age categories (Frey, 1983b) or across any other socioeconomic measures that were related to white suburban selection during the postwar years (Farley, 1976; Frey, 1978b; Nelson, 1980). It is not necessary here to recount all that has been written on the various forms of housing discrimination practiced by real estate agents, financial organizations, government institutions, and the like (Foley, 1973; Taeuber, 1975; Clark, 1979). As a consequence of these activities, however, several cohorts of black movers were directed primarily to city destinations at all stages of the lifecourse. This insured that central cities would become the place of residence for these cohorts' members during the older, relatively stable (nonmobile) years of their lives.

Expected Changes in White and Black Lifecourse Migration

Expectations that lifecourse destination patterns of whites and blacks may be changing are predicated on emerging societal shifts in family formation and race relations. Recent evidence makes plain that the strong family orientation in household living arrangements which characterized the 1950s and 1960s has disintegrated markedly in the decade of the '70s (Glick, 1977; Kobrin, 1976; Norton, 1983; Thornton and Freedman, 1983). Beginning with the postwar baby-boom cohorts, it appears as if the traditional family life cycle will constitute only one of many possible lifecourse-related patterns that future generations of adults will adopt. The new de-emphasis on childrearing suggests that a suburban destination will become a less pervasive choice among young adults, two-earner couples, childless families and single individuals, who place great value on the time-cost of travel and the central location advantages of proximity to workplace, transportation and entertainment (Frey and Kobrin, 1982). Following this line of thought, Long (1980) suggests that the previous lifecourse pattern of a short city stay followed by a long-term suburban residence might be transformed into a tendency to "stay in the

city" for a longer, if not indefinite period of time. It is expected that, because fewer whites in their late 20s and early 30s will be raising children, the suburban-destination choice will become less pronounced during these ages.

The suggestion that black suburban selection will become more like that of whites follows from the narrowing gap between whites and blacks observed in other economic and status dimensions (Levitan et al., 1975; Farley, 1977; Farley and Hermalin, 1972). While large segments of the black population continue to remain isolated from mainstream jobs and adequate housing opportunities, an increasing share of younger postwar blacks have begun to enter the middle class (Wilson, 1978; Pettigrew, 1980). These more-educated cohorts of blacks stand the greatest chance of surmounting longstanding barriers to residential integration. Moreover, the passage of federal fair-housing legislation in 1968 should serve to facilitate greater suburban residential integration for these cohorts, as well as for the black population at large. The expectation that age variation in the black destination selectivity pattern will approach that of whites is based on the assumption that age-related preferences for a suburban location are similar for both races, and that the previous low levels of black suburban selection primarily represented constraints (both economic and discriminatory) that operated only on blacks. As the latter constraints are lessened, it is anticipated that black lifecourse patterns will begin to converge with those of whites.

QUESTIONS TO BE ADDRESSED

The previous discussion suggests that the lifecourse migration patterns of newer white and black cohorts are different from those that fueled the racially selective suburbanization of the immediate postwar period. The dynamics of demographic structure dictate, however, that the adoption of these expected lifecourse patterns among new cohorts of whites and blacks cannot effect significant *short-term* changes in city and suburb population sizes or racial compositions. Because each successive cohort enters a relatively nonmobile period after its members reach their mid-thirties, appreciable *long-term* alterations in the present race distribution pattern can only result from: (a) a significant departure from past lifecourse destination selection patterns, particularly in the destinations of moves made just prior to the more stable portion of the lifecourse; and (b) adoption of the new lifecourse migration pattern by a succession of adult cohorts.

It is plausible to suggest that condition (b) will prevail if the new migration patterns are linked to long-term societal shifts away from traditional familism and childrearing and toward a greater integration of the races. Cherlin (1981) holds that the postwar emphasis on childrearing represented a distortion in the long-term trend toward lower fertility and a broader range of household living arrangements, and that the recent turn away from the traditional family life cycle can be expected to continue for some time. If Pettigrew's (1980) view is correct and racial segregation by residence represents the primary barrier to greater racial integration in other spheres, then an emergent suburbanization of blacks might be expected to endure or even intensify.

Therefore, the more important questions for those interested in arresting the racially selective, city–suburb redistribution process pertain to condition (a), namely:

(1) Are the new lifecourse migration patterns for whites sufficiently different from the past to bring about an eventual reduction in white central-city population losses?
(2) Are the new lifecourse migration patterns for blacks sufficiently different from the past to bring about an eventual redistribution of the metropolitan area's black population to the suburbs?

Each question is answered by way of a two-part strategy. The first part of the analysis involves a cross-decade comparison of movers' lifecourse destination selection patterns, based on migration data prepared from three decennial U.S. Censuses. Age-specific city- and suburb-destination propensity rates are compared over the periods, 1975–80, 1965–70, and 1955–60, in order to determine if the most recent rates are significantly different from the past, as hypothesized.[1] In a cross-decade comparison of whites (in answer to question 1), it is expected that 1975–80 white movers will diverge from their counterparts in previous decades by exhibiting a greater tendency to select city destinations in ages that were previously

[1] Each of the three periods' age-specific rates are observed cross-sectionally and will not necessarily characterize the lifetime experiences of any single cohort. Nevertheless, the age-specific rates for the 1975–80 period constitute the most recently observed rates for all existing cohorts; and it is in this period only that all movers below 35 (including those in the important 25–34 age group) were born since 1945. For reasons discussed in the text, the destination selections for these movers are most strongly influenced by recent changes in family formation patterns and in race relations, and are therefore expected to diverge from earlier patterns.

dominated by childrearing. In a cross-decade comparison of blacks (in answer to question 2), it is expected that 1975–80 black movers will exhibit a greater tendency to select suburban destinations at all stages of the lifecourse, following the age pattern previously displayed by whites.

The second part of the analysis seeks to determine whether the new lifecourse destination selection patterns can effect a significant change in intrametropolitan redistribution in the long run. It employs the demographer's cohort-component projection methodology to project alternative city–suburb redistributions that would result if future cohorts of movers adopted each of the three sets of lifecourse destination propensity rates (1975–80, 1965–70, 1955–60). All three alternative projections begin at the same year (1970), assume the same "reasonable" values for fertility, mortality and interregional migration, and differ *only* in the lifecourse destination propensity rates that are assigned to future cohorts of movers. In the examination of question 1, it is expected that a slower projected city–suburb redistribution of whites will result when the 1975–80 lifecourse destination rates are attributed to future white-mover cohorts than when 1965–70 or 1955–60 rates are so attributed. In the examination of question 2, it is expected that a greater projected city-to-suburb redistribution of blacks will result when the more recent lifecourse destination propensity rates are attributed to future black-mover cohorts. None of these projections are intended as actual *predictions* of future city–suburban redistribution. Rather, they are used as a means for assessing the extent to which recent lifecourse migration patterns differ from those of previous postwar decades.

The final question to be addressed in this analysis is:

(3) Are the new lifecourse migration patterns for whites and blacks becoming sufficiently similar to each other to bring about a more balanced city–suburb redistribution of the races?

This question is answered by comparing alternative cohort-component projections of central-city and suburban racial compositions, each attributing a given set of lifecourse destination propensity rates to future cohorts of white and black movers. The main comparison contrasts the projected city and suburb racial compositions that attribute 1975–80 lifecourse patterns to future white- and black-mover cohorts with projections that attribute 1965–70 patterns to these cohorts. Finally, a third cohort-component projection is undertaken which assumes that white- and black-mover destination propensity rates will be equal to each other at all stages of the lifecourse. These projections represent the potential minimum levels of racial segregation that can be expected.

Metropolitan Areas Selected for Analysis

The analysis is undertaken for six SMSAs (Standard Metropolitan Statistical Areas): New York, Chicago, Philadelphia, Boston, Detroit and Washington, D.C. Each of these SMSAs is among the nation's oldest by traditional measures (Schnore, 1965; Guest, 1973) and sustained net losses in its city white populations over the 1950–70 period (Taeuber, 1972). Each has also served as a major destination for black migrants throughout the twentieth century (Hamilton, 1964; Taeuber and Taeuber, 1965). Despite broad similarities across the six, New York, Chicago, Philadelphia and Boston are the most appropriate "test cases" for answering the questions above. These four can be characterized as diversified metropolitan areas with vital downtown areas, whose industrial structures are comprised of large administrative, financial or service components (Harris, 1943; Nelson, 1955; Duncan and Lieberson, 1963).

Detroit and Washington, D.C. represent the respective "worst case" and "best case" test areas for the above questions. Detroit's industrial base is dominated by manufacturing, and its central city has sustained heavy losses in both employment and population during the 1950–70 period. The city also has a history of racial conflict and an extreme racial selectivity in its suburban movement (Rose, 1976; Farley et al., 1978; Frey, 1978b; London, 1983). With this background, Detroit's white and black movers should be the least likely to change their destination patterns in the ways that have been suggested above. At the other extreme lies Washington, D.C.—a government center with centrally located employment and a highly educated and professional labor force. Its industrial structure and population characteristics put it in the best position of the six SMSAs to take advantage of a newly emerging demand for city residence (The Greater Washington Research Center, 1980). Furthermore, Washington, D.C. has also stood at the forefront of the black suburbanization movement (Grier and Grier, 1978). Because of its highly select black-population characteristics, the rigorous enforcement of the housing legislation in this SMSA and its underbounded city territory, the suburban selection of black movers is expected to be greater in Washington, D.C. than in the other five SMSAs.

Illustration

The analysis that follows evaluates recent changes in lifecourse destination selection patterns, first, by examining these patterns directly, and second, by projecting city and suburb populations on the assumption that future cohorts of movers will adopt these lifecourse patterns. This illustration shows how these two parts of the analysis relate to each other in the context of the demographer's cohort-component projection model, based on 1965–70 data for whites (nonblacks) in the Boston SMSA.

The first part of the analysis focuses on the three groups of movers whose city–suburb destination choices directly affect the redistribution process. These three at-risk mover populations are: (1) city-origin movers; (2) suburb-origin movers; and (3) in-migrants to the SMSA. Their respective destination propensity rates are defined as:

$$\text{Suburb Destination Propensity Rate of City-Origin Movers} = \frac{\text{City-Origin Movers to a Suburb Destination}}{\text{City-Origin Movers to any (City or Suburb) Destination within the SMSA}}$$

$$\text{City Destination Propensity Rate of Suburb-Origin Movers} = \frac{\text{Suburb-Origin Movers to a City Destination}}{\text{Suburb-Origin Movers to any (City or Suburb) Destination within the SMSA}}$$

$$\text{City Destination Propensity Rate of SMSA In-migrants} = \frac{\text{In-Migrants to the SMSA Who Select a City Destination}}{\text{In-Migrants to the SMSA Who Select any (City or Suburb) Destination}}$$

Frey (1978a) proposes these rates as aggregate population counterparts of the "mover's destination choice" stage in the individual decision-making process (Rossi, 1955; Speare et al., 1975).[2] Each of these rates represents the proportion of its at-risk mover population which selects, as its destination, one part of the SMSA (city or suburb) as opposed to the other. If, for example, the suburb-destination propensity rate of city-origin movers equals .600, this means that six-tenths of all city-origin movers select a destination in the suburbs, and that the remaining four-tenths select destinations in the city. (The two city-destination propensity rates can be interpreted in a complementary manner.) The age-specific destination propensity rates for Boston nonblacks are plotted in the upper three panels of Figure 1.

Directly underneath, in the lower three panels of Figure 1, are the respective at-risk mover populations for the three destination propensity rates. These mover populations for the Boston SMSA depict the characteristic age distribution of all mover populations in this study. They confirm the earlier observation that the majority of all moves are made by young adults and their children. They also show that moves which tend to be of longest duration—those made just prior to the more stable portion of the lifecourse—occur largely between the ages of 25 and 34 (the shaded portions of the plots). As a consequence, the analyses of destination propensity rates will take particular cognizance of destinations selected by movers in the 25–34 age class.[3]

[2] The literature on individual-mobility decision making has long distinguished between the resident's "decision to move" and the mover's "choice of destination" since they are thought to be analytically separate stages for purposes of evaluating the determinants and subgroup selection patterns of residential mobility (Rossi, 1955; Speare et al., 1975). Drawing from this literature, Frey (1978a) advocates making a similar distinction in studies of aggregate mobility streams by defining the conventional residential mobility-stream rate as the product of two rates: a mobility incidence rate—defined as the portion of a subarea's *residents* who move anywhere within the metropolitan area; and a destination propensity rate—defined as the proportion of a subarea's *movers* who select a specific destination within the metropolitan area. It is the latter rate which responds directly to a subgroup's preferences and constraints in the destination-choice aspect of the move, whereas the former rate responds to a more complex calculus of housing, household and neighborhood factors which precipitate a "decision to move" from the previous dwelling. In a similar vein, Frey (1978a) suggests that a destination propensity rate can also be applied to the at-risk population of SMSA in-migrants. This is because the choice of a local (intrametropolitan) destination is analytically distinct from the initial decision, among in-migrants, to select the metropolitan area. Again, the destination propensity rate is directly responsive to a subgroup's preferences and constraints in making a local destination choice. The present investigation of lifecourse destination selection patterns analyzes *age-specific* destination propensity rates because it is assumed that changes in the lifecourse patterns of city–suburb destination preferences (in the case of whites) or constraints (in the case of blacks) will be reflected in the age configurations of these rates.

[3] The reader should be aware that the size of the three mover populations, in comparison to their total number of residents, will vary from SMSA to SMSA and by race. (For example, the proportion of city residents who become city-origin movers over the 1975–80 period varies from .364 to .503 among the six study SMSAs for nonblacks, and from .417 to .560 for black city residents.) However, it is beyond the scope of this study to explain SMSA differences

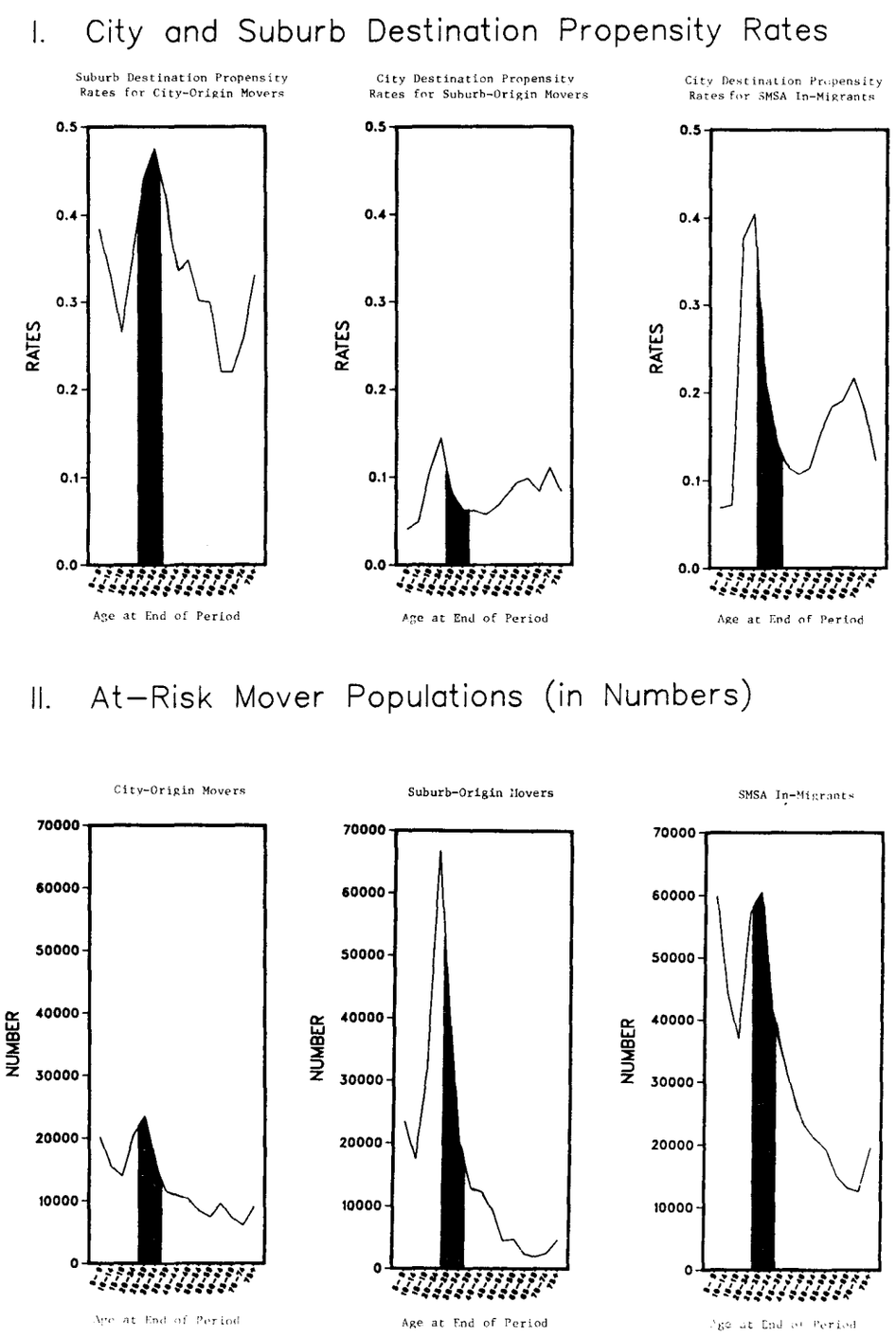

Figure 1. Age-Specific City and Suburb Destination Propensity Rates and Corresponding At-Risk Mover Populations for Nonblacks, 1965–70 Period, Boston SMSA (Shaded areas denote rates and mover populations, age 25–34, at end of period)

Turning now to examine the destination propensity rates, one finds that each of the three rates for Boston in 1965–70 conforms to the stereotypic, postwar patterns described by Abu-Lughod and Foley (1960). The city-origin movers in the first panel show a diminished propensity to select a suburban destination during their early 20s and the greatest propensity to select that destination as they become 25–34. The strong suburban propensity of movers in this 25–34 age group (the shaded area in the upper-left plot) clearly marks this lifecourse pattern as the traditional one which operated during the 1950s and 1960s. Similar destination selection patterns are exhibited by suburb-origin movers and SMSA in-migrants (the second and third upper panels). Because these destination propensity rates are defined in a complementary way as city-destination propensity rates, their plots resemble a "mirror image" of the suburb-destination propensity rates.[4]

The second part of the analysis projects city and suburb populations that would result if future cohorts of movers adopted a given pattern of age-specific destination propensity rates. The process is illustrated in Table 1, which exhibits the projection for Boston's nonblack city population over the interval 1970–1995 based on the destination propensity rates plotted in Figure 1. Here, projected population change over each 5-year period is decomposed into the contributions made by 5-year cohorts, classed by their beginning-of-period and end-of-period age classes. The cohort born in 1955–60, for example, adds to central-city population as it ages from 10–14 to 15–19 (in the period 1970–75) and from 15–19 to 20–24 (in the period 1975–80). However, as this cohort ages beyond the years 20–24 (in the periods 1980–85, 1985–90, and 1990–95), its migration behavior contributes to a decline in the city nonblack population. As it ages, the pattern of this cohort's contribution to city change follows from the lifecourse pattern of its destination propensity rates.

When future cohorts adopt these destination propensity rates, one observes the consistent period-by-period population change observed in Table 1. This pattern shows that, aside from the contributions of births, the only positive contributions to city change are attributable to cohorts passing into years 15–19 and 20–24, and that negative contributions to city growth are associated with cohorts passing into all other age categories. Clearly, the most negative contributions are associated with movers passing into the 25–34 age categories. This reflects both the large number of movers that exist at these ages relative to older ages and the strong suburban propensity of movers in these ages (as is assumed in this projection). The mode of analysis just illustrated is adopted in this study's comparisons of lifecourse destination propensity rates over the periods 1955–60, 1965–70, and 1975–80 for both blacks and nonblacks. While this Boston example focused on the nonblack destination propensity rates for only a single period, it illustrates how the age pattern of these rates becomes translated into the aggregate redistribution process.

PROJECTION METHODOLOGY AND DATA

The cohort-component projection methodology used in this study follows the general multiregional projection model proposed by Rogers

in the sizes of these mover populations. The factors which affect their sizes tend to be associated with the particular mix of housing stock and population characteristics of the given area (in the case of city-origin movers and suburb-origin movers) or the economic attributes of the SMSA as a labor market (in the case of SMSA in-migrants). Such factors are not directly related to the changing preferences and constraints which affect movers' destination selection—the focus of the study here (see Frey, 1978a, for a further elaboration of this point). As a consequence, the cross-period comparisons of destination propensity rates and their associated population projections (which comprise this study's analysis) effectively control for the levels of mobility and in-migration in the manner discussed in the "Projection Methodology and Data" section.

The purpose of presenting the three plots in the lower panel of Figure 1 is to call attention to the *shape* of the age distribution for these mover populations. The fact that this shape—which exhibits a sharp reduction in movers within the 25–34 age groups—characterizes all black- and nonblack-mover populations in the six study SMSA places great importance on the destination propensity rates for movers between the ages of 25 and 34.

[4] The purpose of presenting these plots is to emphasize the age variation in destination selection for the three mover populations. No particular significance for redistribution should be attributed to the fact that the overall *levels* of suburban-destination propensity rates for Boston's city-origin movers are greater than those of city-destination propensity rates for suburb-origin movers. This simply reflects the fact that Boston's city population constitutes only a small fraction (23 percent in 1970) of the SMSA population. Hence, there are more suburban-destination opportunities for city-origin movers than there are city-destination opportunities for suburb-origin movers The redistribution effects of these rates are assessed in the projection analyses, which apply them to their appropriate populations at risk.

Table 1. Projected Period Changes in City Nonblack Population Size Attributable to Five-Year Cohorts (Labeled by Ages at Beginning and End of Each Period) Assuming that 1965–70 City- and Suburb-Destination Propensity Rates Occur for Periods Between 1970–1995: Boston SMSA

5-Year Cohorts (Labeled by Ages at Beginning and End of Period)	Period				
	1970–1975	1975–1980	1980–1985	1985–1990	1990–1995
0–0 to 0–4	+49,304	+46,569	+51,139	+51,855	+49,856
0–4 to 5–9	−8,004	−12,175	−11,366	−12,366	−12,449
5–9 to 10–14	−4,855	−3,333	−5,285	−4,916	−5,334
10–14 to 15–19	+9,385	+10,076	+9,151	+6,936	+7,064
15–19 to 20–24	+19,970	+24,554	+25,318	+22,454	+18,439
20–24 to 25–29	−18,314	−18,715	−18,073	−16,238	−13,040
25–29 to 30–34	−11,043	−13,805	−14,847	−15,192	−14,172
30–34 to 35–39	−3,831	−4,166	−5,191	−5,600	−5,749
35–39 to 40–44	−3,137	−2,482	−2,760	−3,401	−3,691
40–44 to 45–49	−2,827	−1,871	−1,473	−1,628	−2,009
45–49 to 50–54	−2,424	−1,653	−1,061	−798	−855
50–54 to 55–59	−2,105	−1,221	−701	−289	−80
55–59 to 60–64	−3,406	−2,699	−2,209	−1,693	−1,202
60–64 to 65–69	−4,671	−3,798	−3,316	−2,862	−2,349
65–69 to 70–74	−4,824	−4,291	−3,609	−3,139	−2,703
70+ to 75+	−21,665	−19,683	−19,432	−18,773	−18,224
Total	−12,446	−8,694	−3,715	−5,650	−6,499

(1975), as adapted to the intrametropolitan context by Frey (1978a, 1983a).[5] Simply stated, the general multiregional methodology assumes the existence of an initial population distributed across regions and disaggregated according to age categories (usually in 5-year groupings) representing distinct population cohorts born in different (5-year) periods. The projection process then proceeds over any desired number of (5-year) periods under the assumption that each cohort's initial population will be subject to a given schedule of age-specific survival rates, fertility rates and interregional migration rates. Frey's (1983a) extension of this methodology is based on the premise that the central city and suburbs constitute *subregions* of a single labor market *region* (the SMSA), and that movement-induced population change for each subregion is the product of both interregional *migration* streams leading into and out of the SMSA and intraregional *residential mobility* streams which redistribute movers across subregions within the SMSA.

This projection methodology occurs in two distinct stages and assumes the existence of an initial age-disaggregated population for each region in the system (which, in this analysis, consists of the SMSA and the remainder of the country) and for the city and suburb subregions of the SMSA. The first, the "interregional exchange" stage of the projection, is identical to the general multiregional model with respect to regions and requires that given schedules of age-specific survival rates, fertility rates and interregional migration rates be assumed to operate over the course of the projection. The second, the "intraregional allocation" stage of the projection, requires that additional schedules of rates be assumed: age-specific mobility incidence rates for city and suburb residents and the age-specific destination propensity rates for city-origin movers, suburb-origin movers and SMSA in-migrants. During this second stage of the process, in order to create the populations of city-origin movers and suburb-origin movers, the mobility incidence rates (proportion of residents who move within the SMSA) are applied to the populations of city and suburb residents who did not migrate out of the SMSA during the first stage. The three destination propensity rates, discussed earlier, are then applied to these mover groups as well as to the SMSA in-migrants (from the first stage of the process) in order to "allocate" these movers and in-migrants to city and suburb destinations. (The projection process is specified in equations 1 through 6 and the accompanying text in Frey, 1983a.)

The methodology is employed to compare an SMSA's population distributions that would result from imputing different sets of age-specific destination propensity rates to its future mover cohorts. To make this assessment, each alternative projection for the SMSA is

[5] The Frey (1978a) analysis framework provides the impetus for this projection methodology, which is presented and illustrated in detail in Frey (1983a).

estimated over the same interval, is based on the same starting population, and assumes the same values for all age-specific rates *except* the destination propensity rates. Each of the SMSA's alternative projection outcomes are, in effect, "controlled" for cohort patterns of fertility, mortality, interregional migration and mobility incidence, and for the initial city and suburb base populations. The divergence in the SMSA's population outcomes, therefore, is a sole reflection of the different age-specific destination propensity rates that are assumed.

The "standard" interval for the projection is 1970–2020, representing ten 5-year iterations of the projection process. The beginning age-disaggregated population values for each SMSA's black and nonblack populations are those reported in the 1970 U.S. Census, with adjustments for census underenumeration on the basis of nationwide age- and race-specific underenumeration ratios (see Frey and Langberg, 1982). The common age-specific rates of interregional migration and intrametropolitan mobility incidence for each SMSA's alternative projection will be those recorded in the 1970 U.S. Census, based on the 1965–70 period, and the common fertility and survival rates were provided by the U.S. Census Bureau and are consistent with U.S. Bureau of the Census (1977). The decision to use the 1970 figures as the base populations and 1965–70 migration data for aspects of the migration process which are "controlled" in an SMSA's alternative projections draws from two considerations. First, 1965–70 lies at the center of the three periods over which destination propensity rates will be compared. Because the SMSAs of interest experienced unidirectional trends in interregional migration patterns and, in some cases, slight boundary changes, the base populations and migration rates observed in 1965–70 constitute a "reasonable" context within which to evaluate the projected consequences of 1955–60, 1965–70 and 1975–80 destination propensity rates. A second, more practical rationale for selecting the 1965–70 period regards data estimation considerations. The 1965–70 migration data used in this study (U.S. Bureau of the Census, 1973, and special census tabulations) draw from a full 5 percent sample of the 1970 Census. These data provide for a more precise estimation of the detailed age- and race-specific measures of interregional migration and mobility incidence than migration data available from the 2.5 percent sample of the 1980 Census.

The alternative sets of age-specific destination propensity rates—for the periods 1955–60, 1965–70 and 1975–80, respectively—were calculated from comparable tabulations of fixed-interval 5-year migration data available in the 1960, 1970 and 1980 Censuses (U.S. Bureau of the Census, 1963, 1973; and tabulations from the "A" sample of the 1980 U.S. Census Public Use Microfile as documented in U.S. Bureau of the Census, 1983). Within each of these tabulations, allocations were made for individuals who had moved but did not report their residence five years prior to the Census, on the basis of those individuals' personal characteristics. Also, because significant changes in the official SMSA definitions occurred between 1970 and 1980, the 1980 tabulations were prepared to approximate 1970 boundaries for each of the six SMSAs of interest. The reader should be aware that the published 1965–70 and 1975–80 destination propensity rates are based on the "nonblack–black" distinction consistent with the remainder of the rates of this study, while the 1955–60 destination propensity rates are based on the "white–nonwhite" distinction. Therefore, projections based on the latter rates will overestimate the suburban redistribution of both nonblacks and blacks. (For ease of exposition, the discussion will refer to race categories as blacks and nonblacks in all contexts.)

Finally, it should be noted that the destination propensity rates are coded to the broad categories: 5–14, 15–24, 25–34, 35–44, 45–54, and 55+. This is done to maintain sufficiently large denominators for the rates. After some experimentation, it was decided that these 10-year groupings maintained the most crucial cutoff points, and alternative projections based on rates of 5-year age groupings (where available) showed no appreciable difference in outcomes. These 10-year age-specific rates are readily introduced into the projection process by substituting the same 10-year value (e.g., 25–34) in the equations for the 5-year categories (e.g., 25–29 and 30–34).

ANALYSIS

Lifecourse Destination Selection Patterns for Nonblacks

This portion of the analysis examines question 1 in order to determine if nonblack movers' destination selection patterns, as observed in 1975–80, are sufficiently different from the past to signal an eventual reduction in central-city nonblack population decline. According to the strategy outlined earlier, the analysis first compares, directly, an SMSA's age-specific destination propensity rates across the periods 1955–60, 1965–70, and 1975–80. This is followed by the comparison of alternative city and suburb projections of the SMSA, and is used to evaluate the redistribution impact associated with each set of destination propensity rates. Pertinent data for the destination

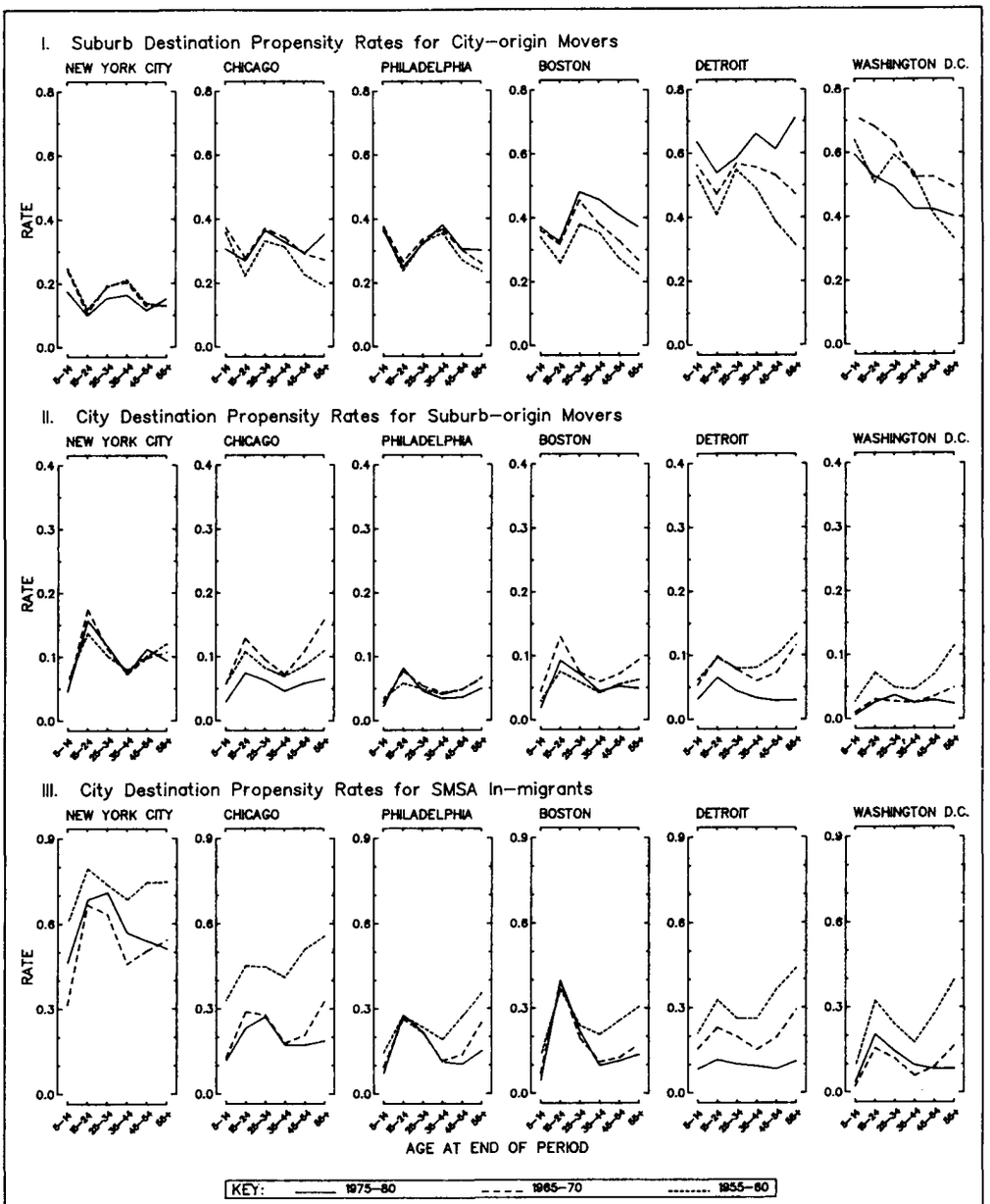

Figure 2. Age-Specific City-Suburb Destination Propensity Rates for Nonblacks: 1955–60, 1965–70 and 1975–80.

propensity rate comparisons appear in Figure 2, which exhibits plots for nonblack destination propensity rates by age for city-origin movers, suburb-origin movers, and SMSA in-migrants. The reader is again reminded that the suburb-destination propensity rates (in the upper panel) are defined in a complementary manner to the city-destination propensity rates (in the two lower panels). The plots in Figure 2 are intended to facilitate cross-period comparisons of destination propensity rate patterns *within an SMSA*. Destination propensity rate levels are, in fact, incomparable across SMSAs because there is a wide inter-SMSA variation in the central city's share of the SMSA's population.[6]

[6] For example, Washington, D.C.'s central city comprises only 26 percent of its SMSA population, whereas New York's central city comprises 68 per-

The alternative population projections, associated with each period's destination propensity rates, appear in Figure 3 and in Table 2. Figure 3 displays plots for each SMSA's alternative nonblack central-city populations over the period 1970–2020, and Table 2 presents the alternative projected values for an SMSA's nonblack city population, suburb population, and city share of the metropolitan population in the years 1970 (the beginning of the projection), 1995 and 2020. Again, the reader should be aware that these data are intended to permit comparisons of alternative projections *within an SMSA*. As indicated in the previous section, any single SMSA's alternative projections are "controlled" for all demographic components of change except the destination propensity rates (1955–60, 1965–70, 1975–80) that are being assumed.

The analysis begins with Boston, the focus for the earlier illustration. The fourth column of plots in Figure 2 exhibits Boston's destination propensity rates. These plots make plain that the traditional lifecourse selectivity patterns observed in 1965–70 were also evident in 1955–60. Each panel's pattern displays an accentuated city preference among movers in the 15–24 age class, followed by a strong suburban preference among movers in the 25–34 age class. However, the unexpected finding for this comparison lies with its 1975–80 rates, which do *not* exhibit a significantly different age-related pattern than that shown in the previous postwar decades. All three 1975–80 destination propensity rates display the same heightened suburban preference (or reduced city preference) among movers in the 25–34 age class that has been observed by such movers in the past. In fact, this tendency is slightly more accentuated among city-origin movers and suburb-origin movers in 1975–80.

The redistribution implications of the different periods' destination propensity rates can be compared by examining the alternative city and suburb projections associated with these rates (Figure 3 and Table 2). These projections make clear that the lifecourse destination selection patterns observed in 1975–80 imply a similar and, in fact, somewhat greater city-to-suburb redistribution of Boston's nonblack population compared to those associated with the destination selection patterns of prior decades. The projected year 2020 city share of the SMSA's nonblack population is 15.1 percent when the 1970s destination propensity rates are adopted by future mover cohorts, compared to 17.7 percent and 18.8 percent, respectively, when 1960s and 1950s rates are so adopted. The fact that the 1970s-based projections do not indicate a greater city retention of nonblacks can be attributed to the unexpected persistence, through the 1970s, of traditional lifecourse destination selection patterns. The continued rise in suburban preference among Boston's 25–34-year-old movers serves to perpetuate a redistribution process which directs large numbers of movers to suburban destinations just prior to their more sedentary years.

This assessment also applies to Philadelphia and Chicago. Each of Philadelphia's three destination propensity rates (the third column of plots in Figure 2) show extremely little deviation from the traditional lifecourse pattern over the three periods; and the alternative population projections associated with these rates lead to city-to-suburb redistribution that becomes progressively greater as a later period's rates are incorporated into the projection. Specifically, the alternative projections for Philadelphia's nonblack city population (Figure 3 or Table 2) reveal estimated 50-year losses of 34.1 percent, 40.6 percent, and 43.6 percent when the projections assume the destination propensity rates of 1955–60, 1965–70, and 1975–80, respectively. The Chicago comparisons tend to mirror the Philadelphia experience

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cent of its SMSA population (in 1970). It is therefore expected that the city-destination propensity rates for Washington's suburb-origin movers will lie at lower absolute levels than the rates for New York's suburb-origin movers—simply because there are fewer relative destination opportunities in Washington's city versus its suburbs than in New York's city versus its suburbs (assuming that the relative city and suburb population sizes constitute crude indicators of the relative number of city and suburb housing opportunities). However, it would be a mistake to infer from these differences in SMSA rate levels that Washington's central-city population is necessarily growing more slowly than that of New York. First, because the ratio of the at-risk population of suburb-origin movers to the resident city population, in Washington, is greater than that ratio in New York—so that a given city-destination propensity rate represents a greater city gain in Washington than in New York. Second, because the rates for movers going in the reverse direction—the suburb-destination propensity rates of city-origin movers—should lie at *greater* levels for Washington than New York because of its greater relative suburb versus city-destination opportunities.

Fortunately, the reader is not asked to make such cross-SMSA redistributional inferences from the Figure 2 plots, or even to compare these "incomparable" rates. (Such inferences are better made from the projection outcomes when all three destination propensity rates are applied to their appropriate populations at risk.) The purpose of presenting the Figure 2 plots is simply to permit assessment of cross-period changes in the age patterns of destination propensity rates *within an SMSA*. The redistribution implications of these changes will be specified in the alternative projection comparisons.

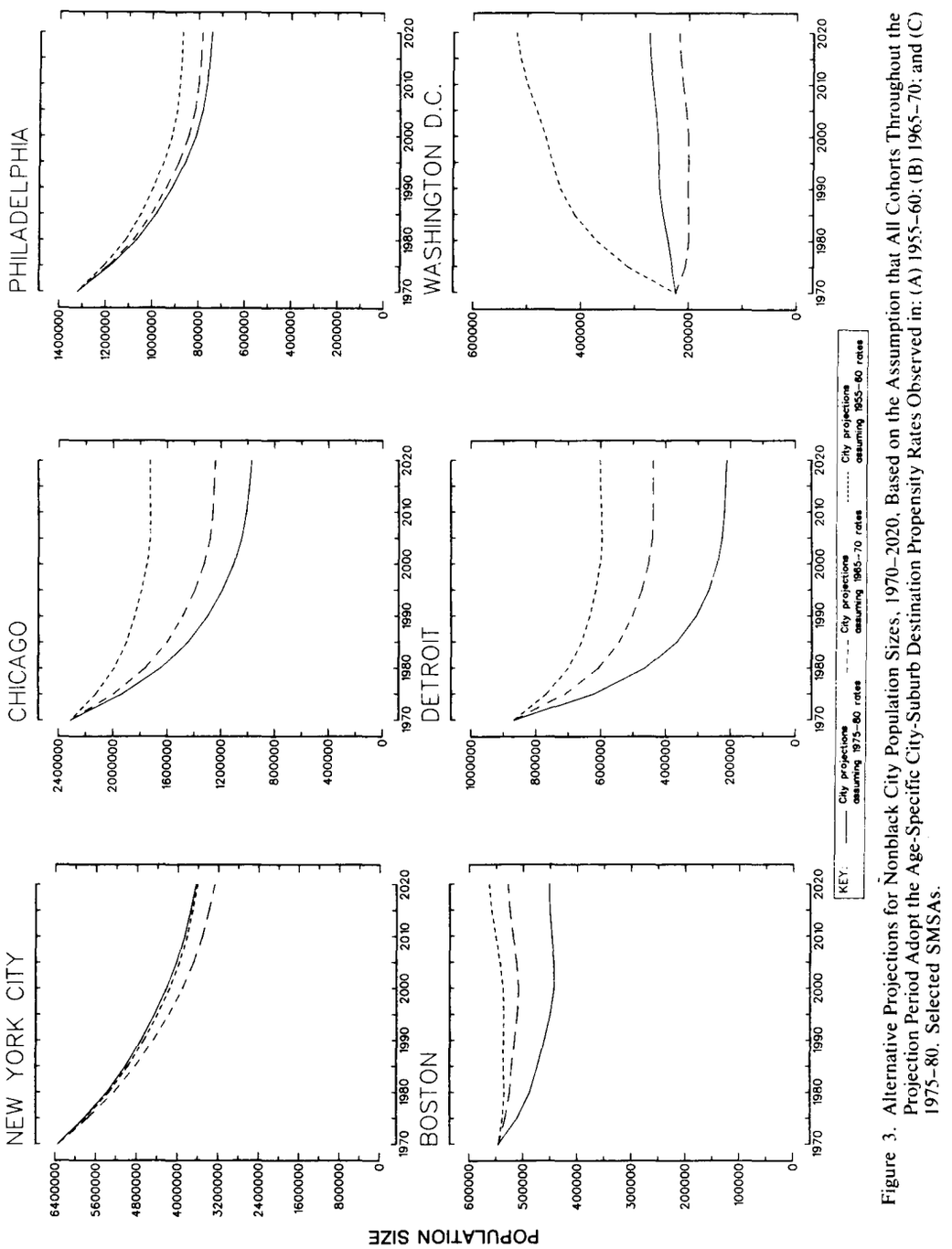

Figure 3. Alternative Projections for Nonblack City Population Sizes, 1970–2020, Based on the Assumption that All Cohorts Throughout the Projection Period Adopt the Age-Specific City-Suburb Destination Propensity Rates Observed in: (A) 1955–60; (B) 1965–70; and (C) 1975–80. Selected SMSAs.

in the sense that the traditional lifecourse selection pattern persists for most movers in 1975–80, and in that the projections associated with the latter period's rates result in a greater city-to-suburb redistribution of the SMSA's nonblack population. (One exception to this 1975–80 persistence occurs with SMSA in-migrants, age 25–34, who show a *greater* city destination propensity rate than in-migrants age 15–24. However, its effect becomes

Table 2. City and Suburb Nonblack Population Sizes for 1970, and Alternative Projections for 1995 and 2020, Based on Assumptions that All Cohorts Throughout the Projection Period Adopt the Age-Specific City- and Suburb-Destination Propensity Rates Observed in: (a) 1955–60, (b) 1965–70 and (c) 1975–80. Selected SMSAs

SMSAs/Rates Assumed in Projection	City Population[a] for Year			Suburb Population[a] for Year			City/SMSA Share[b] for Year		
	1970 (1)	1995 (2)	2020 (3)	1970 (4)	1995 (5)	2020 (6)	1970 (7)	1995 (8)	2020 (9)
New York									
(a) 1955–60 Rates	6344	4396	3615	3524	3853	3602	64.3	53.3	50.1
(b) 1965–70 Rates	6344	4174	3274	3524	4074	3944	64.3	50.6	45.4
(c) 1975–80 Rates	6344	4459	3645	3524	3790	3573	64.3	54.1	50.5
Chicago									
(a) 1955–60 Rates	2307	1788	1723	3550	4045	4134	39.4	30.6	29.4
(b) 1965–70 Rates	2307	1391	1237	3550	4442	4620	39.4	23.8	21.1
(c) 1975–80 Rates	2307	1186	967	3550	4647	4891	39.4	20.3	16.5
Philadelphia									
(a) 1955–60 Rates	1319	949	869	2729	3538	3917	32.6	21.2	18.2
(b) 1965–70 Rates	1319	884	783	2729	3603	4003	32.6	19.7	16.4
(c) 1975–80 Rates	1319	856	743	2729	3631	4044	32.6	19.1	15.5
Boston									
(a) 1955–60 Rates	546	536	562	2130	2296	2425	20.4	18.9	18.8
(b) 1965–70 Rates	546	511	528	2130	2321	2459	20.4	18.1	17.7
(c) 1975–80 Rates	546	450	452	2130	2382	2535	20.4	15.9	15.1
Detroit									
(a) 1955–60 Rates	867	613	599	2641	2936	2942	24.7	17.3	16.9
(b) 1965–70 Rates	867	471	436	2641	3079	3106	24.7	13.3	12.3
(c) 1975–80 Rates	867	265	210	2641	3285	3332	24.7	7.5	5.9
Washington, D.C.									
(a) 1955–60 Rates	223	453	520	1976	2562	2854	10.2	15.0	15.4
(b) 1965–70 Rates	223	200	218	1976	2815	3155	10.2	6.7	6.5
(c) 1975–80 Rates	223	256	273	1976	2759	3100	10.2	8.5	8.1

[a] In thousands.
[b] Equals [city population/(city population + suburb population)] × 100.

overwhelmed, in the aggregate redistribution process, by the traditional lifecourse patterns of city-origin movers and suburb-origin movers.)

Of the four "test" SMSAs, only New York shows some evidence of the expected lifecourse destination selection patterns among its 1975–80 movers (first column of plots in Figure 2). While the traditional lifecourse pattern does not completely disappear in 1975–80, it has become strongly moderated among city-origin movers—whose 25–34-year-old members exhibit only a slightly greater tendency to select suburban destinations than their 15–24-year-old counterparts—and reversed among SMSA in-migrants—whose 25–34-year-old members show a greater propensity to select city destinations than their 15–24-year-old counterparts. The aggregate implications of these new lifecourse patterns are discernible in the alternative projections for New York (Figure 3 and Table 2), which show that greater projected nonblack city populations result when future mover cohorts adopt the lifecourse destination propensity rates of 1975–80 than when the rates of either 1965–70 or 1955–60 are adopted.

The findings for Detroit and Washington, D.C. confirm the premise that these areas represent appropriate, "worst case" and "best case" metropolitan contexts for this analysis. Detroit's 1975–80 destination propensity rates for city-origin movers and suburb-origin movers not only exhibit the traditional lifecourse *pattern* of previous decades' movers, but they also display a more suburb-directed (or less city-directed) absolute *level* for rates at all ages. The 1975–80 SMSA in-migrants of Detroit deviate from the past by exhibiting a relatively flat pattern of city-destination selection at all ages, and they also stay at a much lower absolute level of city propensity than the rates of previous decades. Detroit's post-1970 change in the overall level of destination propensity is unique among the SMSAs in this study and serves to accentuate the traditional lifecourse selection pattern that persists among its 1975–80 city and suburb movers. As a consequence, the projected city-to-suburb redistribution, resulting from the late-1970s destination propensity rates (shown in Figure 3 and Table 2), signals an acceleration rather than moderation of the suburbanization process.

It is only with the "best case" SMSA,

Washington, D.C., that one finds a prototype of the expected change in lifecourse destination selection. This occurs among city-origin movers and is already evident in the 1965–70 period (last column of plots in Figure 2). In both 1965–70 and 1975–80, Washington's city-origin movers beyond age 25 show a *lower* propensity to select suburban destinations than those in the 15–24-year-old age class. The fact that child movers age 5–14 display the greatest suburban propensity rates suggests that adults with children continue to select suburban destinations to a large extent. Yet, the fact that most adults exhibit suburban destination propensity rates that are considerably below those for children suggests a strong city preference for adults who are not engaged in childrearing. The expected lifecourse destination selection pattern is less evident for Washington's other two mover populations. The 1975–80 pattern for suburb-origin movers conforms somewhat to the expected changes because its 25–34 age category displays the highest city-destination selection. However, the 1975–80 pattern for SMSA in-migrants is similar to that for earlier periods.

The comparison of Washington's alternative projections (Figure 3 and Table 2) point up the redistribution implications of the post-1970 rates. Of course, the most striking contrast occurs between the projections based on the 1955–60 rates and those based on the 1965–70 rates. This is because the late 1960s was still a period of extensive suburbanization in Washington, D.C., and it is reflected in the distinctly different overall levels of its 1955–60 and 1965–70 destination propensity rates. However, when the projections based on the 1965–70 rates are compared with those based on the 1975–80 rates, one finds a gradual long-term population increase associated with the latter projection. This increase is partially attributable to changes in the overall levels of the 1975–80 destination propensity rates toward a city preference, but it is also due to the adoption of a new lifecourse destination selection pattern.

In sum, this analysis does not provide general support for the expectations raised in question 1. Washington, D.C.'s city-origin movers display the anticipated shift toward an increased city retention of movers in the 25–34 age class. However, Washington's industrial structure and population composition are particularly conducive to this and its experience is probably unique among SMSAs. Of the four "test" SMSAs examined, only New York shows tendencies toward such a change. Recent nonblack movers in the remaining test SMSAs (Chicago, Philadelphia, Boston), as well as the "worst case" SMSA (Detroit), pretty much display the same age-specific destination propensity rate patterns that fueled the suburbanization process of previous decades.

Lifecourse Destination Selection Patterns for Blacks

This analysis of black destination selection patterns examines question 2. It determines whether or not recent destination selection patterns are sufficiently different from the past to signal a long-term suburbanization of the metropolitan black population. The analysis strategy follows that of question 1. However, because the vast majority of black movers belong to the city-origin mover group, the cross-period comparison of destination propensity rates focuses on this mover group only. Plots of these rates for blacks as well as for nonblacks are presented in Figure 4. The alternative projections of black city and suburb populations are presented in Figure 5 and Table 3. The Figure 5 plots also show *the SMSA's* projected population in order to represent graphically the alternative city shares of the SMSA's black population (this SMSA projection remains constant because the two-stage projection methodology assumes the same projected SMSA population for each alternative projection of the SMSA's city and suburb population).

The cross-period comparison of the 1955–60, 1965–70 and 1975–80 black suburb-destination propensity rates shown in Figure 4 suggests that a similar trend is at work in the four test SMSAs. Each of these SMSAs displays a common lifecourse pattern in both the 1955–60 and 1965–70 periods that is characterized by: (a) low-level suburban selection that lies far beneath that of the nonblack population; and (b) almost no variation in suburban selection. These data are consistent with earlier observations on the nonparticipation of blacks in the immediate postwar suburbanization process. Also consistent with this view are the alternative projections associated with the destination propensity rates for these two postwar periods (Figure 5 and Table 3). Each SMSA's 1955–60- and 1965–70-based projections show similar increases in black city growth and similar projected city shares of the metropolitan black population, and the latter do not differ appreciably from the city share observed at the beginning of the projection interval. For example, one finds that Chicago's 89.6 percent city share of the SMSA population in 1970 gets projected to a year 2020 share of 89.7 percent when future mover cohorts adopt 1955–60 destination propensity rates, and a 90.9 percent share when future mover cohorts adopt 1965–70 destination propensity rates. The other three

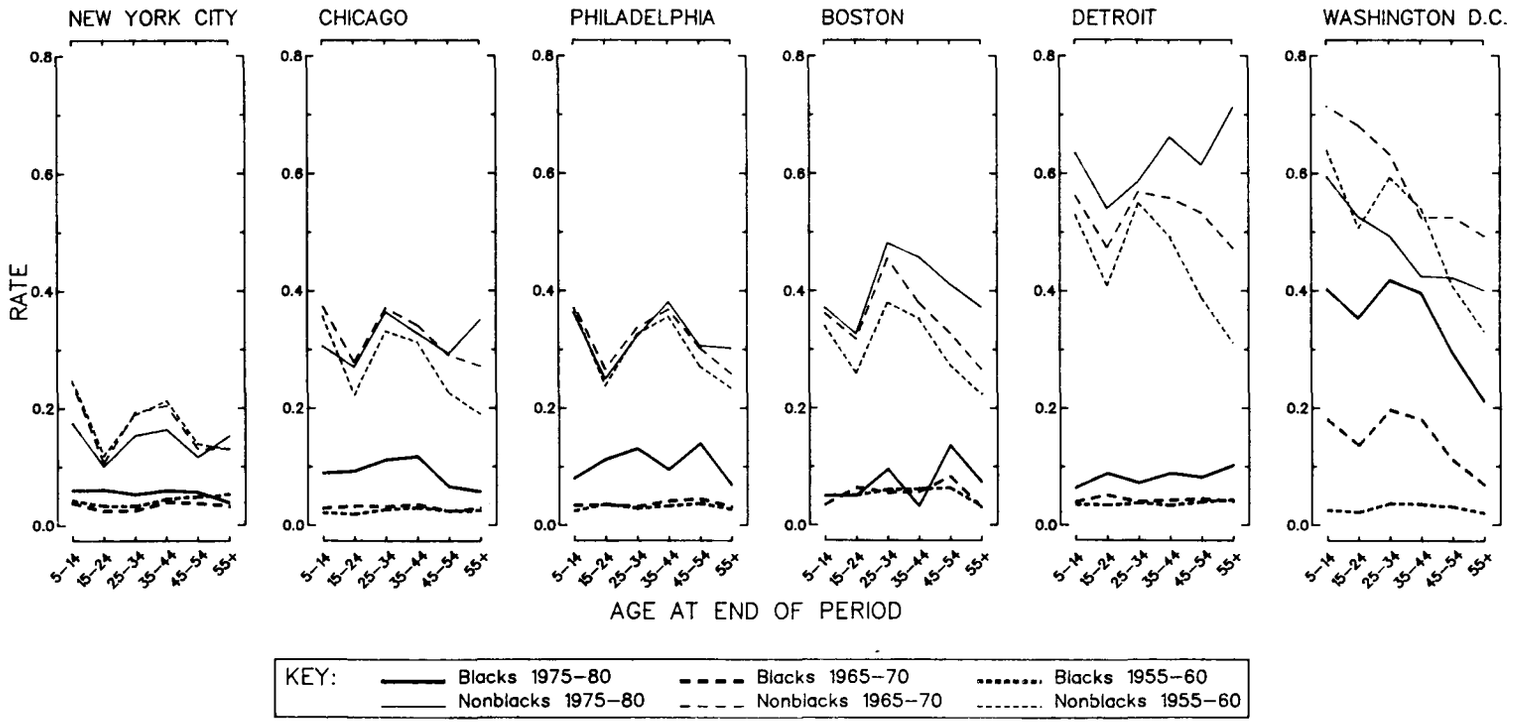

Figure 4. Age-Specific Suburb Destination Propensity Rates of City-Origin Movers, for Blacks and Nonblacks: 1955–60, 1965–70, and 1975–80, Selected SMSAs.

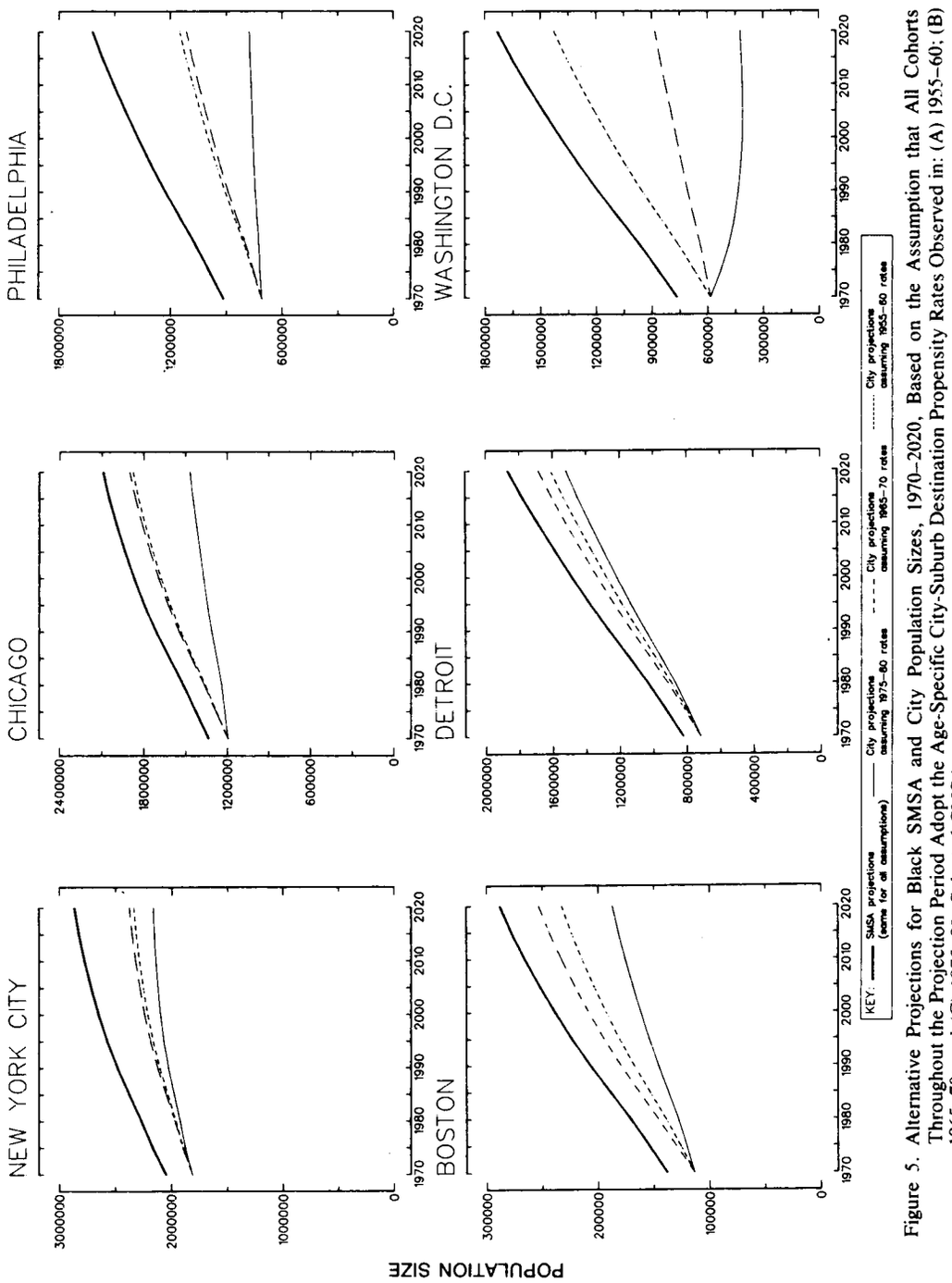

Figure 5. Alternative Projections for Black SMSA and City Population Sizes, 1970–2020, Based on the Assumption that All Cohorts Throughout the Projection Period Adopt the Age-Specific City-Suburb Destination Propensity Rates Observed in: (A) 1955–60; (B) 1965–70; and (C) 1975–80. Selected SMSAs.

SMSAs' alternative projections are not as close to each other as this, but are similar nonetheless. (The reader is reminded that very small differences are confounded by the different coding of race in 1955–60 and 1965–70).

However, when the SMSAs' 1975–80 destination selectivity patterns are contrasted with those of the previous two periods, it is plain that their patterns are changing in the expected directions. What is most apparent is an appre-

Table 3. City and Suburb Black Population Sizes for 1970, and Alternative Projections for 1995 and 2020, Based on Assumptions that All Cohorts Throughout the Projection Period Adopt the Age-Specific City- and Suburb-Destination Propensity Rates Observed in: (a) 1955–60, (b) 1965–70 and (c) 1975–80. Selected SMSAs

SMSAs/Rates Assumed in Projection	City Population[a] for Year			Suburb Population[a] for Year			City/SMSA Share[b] for Year		
	1970 (1)	1995 (2)	2020 (3)	1970 (4)	1995 (5)	2020 (6)	1970 (7)	1995 (8)	2020 (9)
New York									
(a) 1955–60 Rates	1811	2161	2337	235	409	528	88.5	84.1	81.6
(b) 1965–70 Rates	1811	2186	2377	235	384	488	88.5	85.1	83.0
(c) 1975–80 Rates	1811	2067	2164	235	504	702	88.5	80.4	75.5
Chicago									
(a) 1955–60 Rates	1195	1609	1876	139	186	215	89.6	89.6	89.7
(b) 1965–70 Rates	1195	1625	1901	139	170	190	89.6	90.5	90.9
(c) 1975–80 Rates	1195	1342	1467	139	454	624	89.6	74.8	70.2
Philadelphia									
(a) 1955–60 Rates	708	953	1150	206	350	469	77.4	73.2	71.0
(b) 1965–70 Rates	708	933	1114	206	370	505	77.4	71.6	68.8
(c) 1975–80 Rates	708	751	776	206	552	842	77.4	57.7	48.0
Boston									
(a) 1955–60 Rates	113	180	233	24	43	55	82.3	80.9	80.8
(b) 1965–70 Rates	113	194	253	24	29	35	82.3	87.2	87.9
(c) 1975–80 Rates	113	154	187	24	69	101	82.3	68.9	65.0
Detroit									
(a) 1955–60 Rates	716	1185	1601	105	191	256	87.2	86.1	86.3
(b) 1965–70 Rates	716	1234	1683	105	143	182	87.2	89.6	90.2
(c) 1975–80 Rates	716	1132	1517	105	244	348	87.2	82.3	81.3
Washington, D.C.									
(a) 1955–60 Rates	584	1043	1427	181	257	304	76.3	80.6	82.4
(b) 1965–70 Rates	584	739	882	181	555	848	76.3	57.1	51.0
(c) 1975–80 Rates	584	420	423	181	874	1308	76.3	32.5	24.5

[a] In thousands.

[b] Equals [city population/(city population + suburb population)] × 100.

ciable rise in the level of suburban selection among some, if not all, age groups. While this rise is greater in some SMSAs (Philadelphia) than in others (New York), it represents a distinct change from the past in the expected direction. The findings are less clearcut with regard to the expected age variation in destination selection. The destination propensity rates for three SMSAs (Boston, Philadelphia, Chicago) begin to resemble the nonblack pattern, displaying a greater suburban shift for the 25–34 age class. However, this shift is not very accentuated, nor do these patterns show a heightened suburban selection for children age 5–14. (This latter tendency may reflect the large share of black city children who reside in single-parent families. Among both blacks and whites, such families are less likely to select suburban destinations than husband-wife families with children [Frey and Kobrin, 1982; Frey, 1983b].) New York city-origin movers, while exhibiting an increased 1975–80 level of suburban-destination propensity, show no marked age variation in that propensity. In sum, the movers for all four test SMSAs display post-1970 destination selection rates that are significantly more suburban directed than those of previous decades. While the age patterns of destination selection for blacks do not conform precisely to those for nonblacks, they bear some resemblance to the latter; and in all cases, one finds higher post-1970 suburban destination propensity rates among black movers in the important 25–34 age class.

The significance of the 1975–80 destination propensity rates becomes even more apparent when observing the projections associated with these rates. Each SMSA's 1975–80-based projection provides for a more diminished long-term city growth and a greater city-to-suburb redistribution of the black population than was the case with the 1955–60- and 1965–70-based projections. Projections for Philadelphia, Boston and Chicago show the greatest changes from the past because their 1975–80 destination propensity rates come closest to expectations in both level and age patterns. Their respective projected year 2020 city shares of the SMSA black population were 48 percent, 65 percent, and 70.2 percent when 1975–80 rates were assumed in the projection, as compared to 68.8 percent, 87.9 percent, and 90.9 percent when the 1965–70 rates were assumed. New

York's post-1970 change in destination propensity rates was less pronounced than those in other SMSAs. Yet the projections based on its 1975–80 rates also differed from those of earlier periods to effect a greater suburban redistribution of blacks.

The comparisons for Detroit and Washington, D.C. again represent extremes. However, even as the "worst case" example, Detroit's black city-origin movers show evidence of a 1975–80 rise in suburban selection (Figure 4, Plot 5), indicating that this post-1970 change is fairly pervasive. Despite this rise, Detroit's 1975–80 suburban-destination propensity rates neither conform to the expected age variation, nor do they represent a particularly large increase in the level (when one uses, as a benchmark, the SMSA's nonblack destination propensity rate level). As a consequence, black city and suburb populations that are projected when future mover cohorts adopt Detroit's 1975–80 destination propensity rates do not differ strongly from those projections that attribute 1965–70 or 1955–60 destination propensity rates to those mover cohorts (Figure 5 and Table 3).

At the other extreme lies Washington, D.C., where one finds a prototype of the expected change. A comparison of black destination propensity rates for Washington's city-origin movers (Figure 4, Plot 6) reveals that the expected change occurs already in 1965–70 and becomes even more accentuated 1975–80. The rates for each of these periods display fairly dramatic increases, over the prior period, in the level of black suburban selection. In each case, they exhibit the traditional "white" destination selection pattern, showing a sharp rise in suburban-destination propensity among 25–34-year-old black movers. Accordingly, the alternative projections for Washington show dramatically different outcomes (Figure 5 and Table 3). While Washington's city share of the SMSA population stood at 76.3 percent in 1970, and is projected to an eventual (year 2020) share of 82.4 percent on the basis of 1955–60 destination propensity rates, this projected city share becomes lowered to 51 percent on the basis of 1965–70 rates and to 24.5 percent on the basis of 1975–80 rates. Clearly, Washington's special circumstances place it in the vanguard of the black suburbanization movement.

Central City and Suburb Racial Disparities

The findings discussed here address question 3 and assess the extent to which 1975–80 black and nonblack destination selection patterns lead to a more racially balanced city–suburb redistribution process. The analyses presented thus far indicate that such a change will not result from any post-1970 decrease in suburban selection among nonblack movers. Their 1975–80 destination propensity rates, for most study SMSAs, provide for a *greater* suburbanization of nonblacks than do their rates of earlier periods. However, the pervasive rise in suburban selection among black movers in all study SMSAs may contribute to a narrowing of the racially disparate city–suburb redistribution process.

The plots of black and nonblack destination propensity rates in Figure 4 suggest that some narrowing of racial patterns has occurred between the 1965–70 and 1975–80 periods for the four test SMSAs. In Boston, Philadelphia and Chicago this narrowing is almost completely a consequence of rising suburban selection among black movers, and it is particularly pronounced for the important 25–34 age group, where black suburban propensity rates have risen sharply and nonblack rates have shown minimal change. The narrowing of the black-nonblack difference for New York is the result of both reduced suburban selection among nonblack movers and an increase in suburban selection among blacks. While these data for city-origin movers (as well as comparable data, not shown, for suburb-origin movers and SMSA in-migrants) suggest that some closure in the racially selective redistribution may be occurring, they also indicate that a wide gap still remains between the overall levels of black and nonblack suburban selection.

There is less ambiguity in interpreting the redistribution implications of recent black and nonblack destination propensity rates for the two "extreme" SMSAs—Detroit and Washington, D.C. Although Detroit's black city-origin movers show an increased suburban selection in 1975–80, so do its nonblack movers. This pattern (replicated by Detroit's suburb-origin movers and SMSA in-migrants) suggests an increased suburban redistribution of both races at vastly different destination propensity rate levels and implies a perpetuation of the SMSA's already racially selective redistribution process. In Washington, D.C., on the other hand, one finds a narrowing of the black-nonblack destination propensity rate gap already in 1965–70. The late-1960s rise in black suburban destination propensity rates is responsible for this early closure in its black-nonblack differences. However, the continued rise in these rates, coupled with an increased nonblack "stay in the city" movement results in a more extensive narrowing of the gap in the 1975–80 period. (These tendencies for city-origin movers, shown in Figure 4, are reinforced, but less pronounced, for suburb-origin

movers and SMSA in-migrants.) As a consequence, Washington's 1975–80 destination propensity patterns constitute a significant change from the past and they suggest a city-suburb redistribution that will be far less racially selective.

While the 1975–80 black and nonblack destination selection patterns imply some moderation in the racially selective city-suburb redistribution process of the four study SMSAs and a pronounced change in that process for Washington, D.C., a more concrete evaluation can be made by comparing alternative projections for each SMSA's city and suburb populations by race. Because most of the "narrowing" in the racial destination selection patterns between 1965–1970 and 1975–80, only two alternative projections are compared—one which attributes 1965–70 destination propensity rates to future cohorts of black and nonblack movers, and another which attributes 1975–80 destination propensity rates to these movers. The first projection simply combines the results of the separate 1965–70-based black and nonblack projections of city–suburb redistribution undertaken earlier in the analysis. Likewise, the second projection combines the results of the previous 1975–80-based black and nonblack projections. The outcome of each projection is the SMSA's city and suburb population sizes by race.

The alternative projection outcomes are presented in Table 4 in terms of the summary statistics: the index of dissimilarity (columns 1, 2, 3), the city's percentage population black (columns 4, 5, 6) and the suburb's percentage population black (columns 7, 8, 9). (The computation formulas for these statistics are given in the footnotes to Table 4.) The index of dissimilarity will serve as the primary measure for racial segregation, or the degree of black-nonblack disparity in city–suburb population distributions. This index has the useful property of being insensitive to the SMSA's racial composition so that any change in the index value, registered over the projection interval, will reflect a change in racial segregation independent of any change in the SMSA's racial composition over that interval. The Table 4 measures permit comparisons, *within each SMSA*, of the projected racial segregation levels that are associated with 1965–70 destination propensity rates (labeled (a) in Table 4) with those that are associated with 1975–80 destination propensity rates (labeled (b) in Table 4). While the SMSAs obviously differ in their beginning-year indices of dissimilarity (column 1), reflecting their particular population growth histories, each SMSA's index reflects a significant initial-year level of racial segregation.

It is clear from examining the outcomes of the 1965–70-based projection that high levels of residential segregation persist throughout the projection interval. The year 2020 indices of dissimilarity range from 38 to 78 (column 3) and represent increases from the initial 1970 indices in all SMSAs except Washington, D.C. Moreover, the year 2020 disparities between each SMSA's city and suburb racial compositions (columns 6 and 9) are extreme—even in Washington, D.C., which shows a percentage population black of 80.2 in the city compared to 21.2 in the suburbs. On a relative basis, projections assuming the 1975–80 rates provide for a city-to-suburb redistribution process that is far less racially selective. This can be seen by comparing each SMSA's year 2020 index of dissimilarity for this projection with its counterpart for the 1965–70-based projection. In each SMSA except Detroit, the index falls appreciably and, even in Detroit, there is a small decrease in the index (from 78 to 75). Comparisons of the two projections' year 2020 city and suburb racial compositions yield similar findings. The 1975–80-based projections provide for a greater suburban percentage population black in all SMSAs, and a smaller city percentage population black in all SMSAs except Detroit.

On an absolute basis, however, it is difficult to conclude that the 1975–80 destination propensity rates imply a significant moderation in racial segregation. Among the four test SMSAs, projected year 2020 indices of dissimilarity range from 25 to 54 and, in two SMSAs (New York and Chicago), these represent projected increases over those observed in 1970. Detroit's year 2020 dissimilarity index of 75 is appreciably greater than that observed in 1970. Only Washington, D.C.'s 1975–80 destination propensity rates imply a significantly less selective racial redistribution according to these projections. Both its year 1995 and year 2020 indices of dissimilarity (values 24 and 16, respectively) lie well below its initial index value 66.

In order to place these absolute segregation levels into context, a third projection (labeled (c) in Table 4) was undertaken which assumes no racial differences in destination propensity rates throughout the projection interval. Specifically, it attributes age-specific destination propensity rates of the total (black + nonblack) population to each racial group, based on 1965–70 observations. This projection represents the absolute minimum racial segregation that can be achieved if there were an immediate elimination of racial differences in destination propensity rates and other demographic components assumed the "reasonable" values imputed into these projections. What its outcome for each SMSA shows is a dramatic re-

Table 4. Indices of Dissimilarity and Percentages Population Black in Cities and Suburbs for 1970, and Alternative Projections for 1995 and 2020. Based on Assumptions that All Cohorts Throughout the Projection Period Adopt the Age-Specific City- and Suburb-Destination Propensity Rates: (a) Observed in 1965–70, (b) Observed in 1975–80, and (c) Equal for Nonblacks and Blacks. Selected SMSAs

SMSAs/Rates Assumed in Projection	Index of Dissimilarity[a]			City Percentage Population Black[b]			Suburb Percentage Population Black[c]		
	1970 (1)	1995 (2)	2020 (3)	1970 (4)	1995 (5)	2020 (6)	1970 (7)	1995 (8)	2020 (9)
New York									
(a) 1965–70 Rates	24	35	38	22.2	34.4	42.1	6.3	8.6	11.0
(b) 1975–80 Rates	24	26	25	22.2	31.7	37.3	6.3	11.7	16.4
(c) "Equal" Rates	24	13	8	22.2	28.0	31.4	6.3	18.0	25.2
Chicago									
(a) 1965–70 Rates	50	67	70	34.1	53.9	60.6	3.8	3.7	4.0
(b) 1975–80 Rates	50	55	54	34.1	53.1	60.3	3.8	8.9	11.3
(c) "Equal" Rates	50	19	9	34.1	33.0	32.0	3.8	18.4	23.7
Philadelphia									
(a) 1965–70 Rates	45	52	52	34.9	51.4	58.7	7.0	9.3	11.2
(b) 1975–80 Rates	45	39	33	34.9	46.7	51.1	7.0	13.2	17.2
(c) "Equal" Rates	45	18	7	34.9	33.4	30.7	7.0	18.2	23.6
Boston									
(a) 1965–70 Rates	62	69	70	17.2	27.6	32.1	1.1	1.2	1.4
(b) 1975–80 Rates	62	53	50	17.2	25.5	29.3	1.1	2.8	3.8
(c) "Equal" Rates	62	13	5	17.2	11.3	10.3	1.1	6.2	8.3
Detroit									
(a) 1965–70 Rates	63	76	78	45.2	72.4	79.4	3.8	4.4	5.5
(b) 1975–80 Rates	63	75	75	45.2	81.0	87.8	3.8	6.9	9.5
(c) "Equal" Rates	63	14	5	45.2	23.9	33.1	3.8	24.0	33.1
Washington, D.C.									
(a) 1965–70 Rates	66	50	45	72.4	78.7	80.2	8.4	16.5	21.2
(b) 1975–80 Rates	66	24	16	72.4	62.2	60.8	8.4	24.1	29.7
(c) "Equal" Rates	66	16	4	72.4	49.2	39.5	8.4	25.9	33.0

[a] In this instance, the general formula for the index of dissimilarity (Taeuber and Taeuber, 1965: 236) can be simplified as:

$$\left[\left[\frac{\text{Nonblack Suburb Population}}{\text{Nonblack SMSA Population}}\right] - \left[\frac{\text{Black Suburb Population}}{\text{Black SMSA Population}}\right]\right] \times 100$$

[b] $$\left[\frac{\text{Black City Population}}{\text{Total City Population}}\right] \times 100$$

[c] $$\left[\frac{\text{Black Suburb Population}}{\text{Total Suburb Population}}\right] \times 100$$

duction in the index of dissimilarity after only 25 years (projected 1995 values range between 13 and 19), and a near elimination of city–suburb racial segregation after 50 years. This projection clearly indicates that there exists the potential for achieving a high degree of integration not long after black and nonblack cohorts begin to adopt similar lifecourse destination selection patterns. However, it also points up the high degree of racial selectivity that is associated with the 1975–80 destination propensity rates for the test SMSAs and Detroit when their projections are measured against this absolute minimum.

CONCLUSION

The preceding investigation undertook to examine urban analysts' suggestions that changing preferences for suburban destinations on the part of white metropolitan movers and an increased availability of suburban destinations for black metropolitan movers may be leading to some modification of the "black city–white suburbs" image that has come to be associated with large, older metropolitan areas. The implications of these changes for population redistribution are suggested to be: (1) a moderation of the massive 1950–1970 suburbanization of metropolitan whites that could lead to greater retention (or reduced losses) in their numbers within the boundaries of declining central cities; (2) a full participation of blacks in the suburbanization process that would redistribute a large share of central-city blacks to

suburban locations; and (3) a more racially balanced city-suburb redistribution process wherein white and black movement levels and destination selection patterns became more alike.

This study has adopted the demographer's cohort-component model as its underlying perspective for evaluating the potential redistribution impact of the recent changes in destination selection patterns. The cohort-component model treats migration-induced population redistribution as a product of the *age-related migration patterns* of several successive birth cohorts as they pass through the lifecourse. From this perspective, the racially selective suburbanization process that took place in the immediate postwar decades is viewed as the product of two distinct lifecourse migration patterns: a pattern displayed by a series of white cohorts that is characterized by a widespread movement to suburban destinations during those ages which immediately precede the nonmobile stages of the lifecourse; and a pattern displayed by a series of black cohorts that is characterized by movement, almost exclusively, to within-city destinations at all stages of the lifecourse. The questions addressed in this study sought to determine whether the new *age-related* patterns of whites and blacks are sufficiently different from the past to imply a redistribution process that will be less racially selective.

The results of this analysis only partially confirm the optimistic expectations of many urban analysts. The findings reported for the four SMSAs which served as the study's "test cases" give virtually no support to the contention that there exists a white "return to the city" or "stay in the city" movement large enough to moderate the white suburbanization process. However, the findings do support the suggestion that the level of suburban selection among recent black movers is sufficiently large to provide for a significant city-to-suburb redistribution of the black population. The most recent age-related destination selection patterns for blacks in all four test SMSAs are substantially more suburban directed than those of the 1950s and 1960s; and the projected redistribution associated with these patterns indicate a widespread participation of blacks in the suburbanization process.

As to the question of whether the white and black redistribution processes are becoming more alike over time, the results for the four test SMSAs show that, strictly speaking, destination selection patterns are more alike in the 1970s than they were in the 1950s and 1960s. However, this simply reflects the fact that blacks have begun to participate in the suburbanization movement. On the basis of more absolute criteria, the findings show the new white and black suburban-selection patterns—and the projections implied by these patterns—are quite dissimilar. The only bonafide exception is found with Washington, D.C., purposely incorporated into this study as its "best case" SMSA. Yet, Washington's destination selection and redistribution patterns must be attributed to its unique industrial structure and population characteristics and cannot, on the basis of this analysis, be generalized to other large, older SMSAs. At the other extreme, it should be stated that Detroit, the "worse case" SMSA, did not fail to conform to all of the expectations held for the other SMSAs. While 1975–80 white movers in Detroit countered expectations by exhibiting a *greater* tendency toward suburban relocation than in earlier decades, the 1975–80 black movers in Detroit displayed the expected increase in suburban selection, lending support to the general pervasiveness of the black suburbanization movement.

Finally, the reader is reminded that the *projections* shown in this analysis are not to be taken as literal *predictions* of the future. They merely provide a vehicle for demonstrating the redistribution implications of recent white and black lifecourse destination selection patterns when "reasonable" values for other demographic components of change were held constant. It is, nevertheless, fair to speculate on the "reasonableness" of the assumption that destination selection patterns observed in the 1975–80 period will continue to be adopted by future cohorts of movers. This assumption is probably not a bad one to make for white destination selection patterns. In fact, given evidence, both here and elsewhere (Frey, 1983b), of the continued suburban directedness of white movers over time, this assumption might be regarded as a conservative one that overemphasizes the potential impact of a white "return to the city."

On the other hand, the assumption that future black-mover cohorts will adopt 1975–80 destination selection patterns seems to understate the significance of future black suburbanization. The observed 1975–80 patterns of black young adults represent the experience of the first postwar black cohorts—whose rise in status, education and employment opportunities significantly exceeded those of earlier-born cohorts. With continued rises in status and improvements in race relations, it can be expected that the children of these adults and yet unborn cohorts of blacks will experience significantly fewer constraints in their destination selections than black movers of the late 1970s. Nevertheless, the cohort-component perspective adopted in this study underscores the slow

and deliberate nature of the population redistribution process. Even if racial disparities in destination selection were to be immediately eliminated, this study's findings suggest that it would take a quarter of a century to do away with most (but not all) of the present city–suburb residential segregation of whites and blacks. While it is true that blacks are now participating in the suburbanization process, a wide (though narrowing) racial disparity in suburban selection persists. Hence, declining central cities will probably continue to lose whites to their suburbs and retain a major share of their metropolitan areas' black population for some time to come.

REFERENCES

Abu-Lughod, Janet and Mary Mix Foley
1960 "Consumer strategies." Pp. 71–275 in Nelson N. Foote, Janet Abu-Lughod, Mary Mix Foley, and Louis Winnick (eds.), Housing Choices and Housing Constraints, Part Two. New York: McGraw-Hill.

Alonso, William
1980 "The population factor." Pp. 32–51 in Arthur P. Solomon (ed.), The Prospective City. Cambridge, MA: M.I.T. Press.

Bradbury, Katherine, Anthony Downs and Kenneth A. Small
1982 Urban Decline and the Future of American Cities. Washington, D.C.: The Brookings Institution.

Breckenfield, Gurney
1977 "Refilling the metropolitan doughnut." Pp. 231–58 in David C. Perry and Alfred J. Watkins (eds.), The Rise of the Sunbelt Cities. Volume 14, Urban Affairs Annual Reviews. Beverly Hills: Sage.

Cherlin, Andrew J.
1981 Marriage, Divorce, and Remarriage. Cambridge, MA: Harvard University Press.

Clark, Thomas A.
1979 Blacks in Suburbs: A National Perspective. New Brunswick, NJ: Rutgers University Center for Urban Policy Research.

Duncan, Beverly and Stanley Lieberson
1963 Metropolis and Region in Transition. Beverly Hills: Sage.

Farley, Reynolds
1976 "Components of suburban population growth." Pp. 3–38 in Barry Schwartz (ed.), The Changing Face of the Suburbs. Chicago: University of Chicago Press.
1977 "Trends in racial inequalities: have the gains of the 1960s disappeared in the 1970s?" American Sociological Review 42:189–207.

Farley, Reynolds and Albert I. Hermalin
1972 "The 1960s: a decade of progress for blacks." Demography 9:353–70.

Farley, Reynolds, Howard Schuman, Suzanne Bianchi, Diane Colasanto and Shirley Hatchett
1978 "Chocolate city, vanilla suburbs: will the trend toward racially separate communities continue?" Social Science Research 7:319–44.

Foley, Donald
1973 "Institutional and contextual factors affecting the housing choices of minority residents." In Amos H. Hawley and Vincent P. Rock (eds.), Segregation in Residential Areas. Washington, D.C.: National Academy of Sciences.

Foote, Nelson N., Janet Abu-Lughod, Mary Mix Foley and Louis Winnick
1960 Housing Choices and Housing Constraints. New York: McGraw-Hill.

Frey, William H.
1978a "Population movement and city-suburb redistribution: an analytic framework." Demography 15:571–88.
1978b "Black movement to the suburbs: potentials and prospects for metropolitan-wide integration." Pp. 79–117 in Frank D. Bean and W. Parker Frisbie (eds.), The Demography of Racial and Ethnic Groups. New York: Academic Press.
1978c "Mover's life-cycle stage and choice of destination neighborhood: implications for urban social structure." Pp. 99–148 in W. A. V. Clark and Eric G. Moore (eds.), Population Mobility and Residential Change. Studies in Geography No. 25. Evanston, IL: Northwestern University.
1980 "Black in-migration, white flight and the changing economic base of the central city." American Journal of Sociology 85:1396–1417.
1983a "A multiregional population-projection framework that incorporates both migration and residential mobility streams: application to metropolitan city-suburb redistribution." Environment and Planning-A 15:1613–32.
1983b "Mover destination selectivity and the changing suburbanization of metropolitan whites and blacks." The University of Michigan, Population Studies Center: Research Report No. 83–49.

Frey, William H. and Frances E. Kobrin
1982 "Changing families and changing mobility: their impact on the central city." Demography 19:261–77.

Frey, William H. and Mark L. Langberg
1982 "Alternative projections of SMSA city-suburb redistribution by race based on adjusted and unadjusted census migration data." Pp. 433–37 in Proceedings of the American Statistical Association 1982, Social Statistics Section.

Glenn, Norval D.
1973 "Suburbanization in the United States since World War II." Pp. 51–78 in Louis H. Massoti and Jeffrey K. Hadden (eds.), The Urbanization of the Suburbs. Beverly Hills: Sage.

Glick, Paul C.
1977 "Updating the family life cycle." Journal of Marriage and the Family 39:5–13.

Glick, Paul C. and Larry H. Long
1976 "Family patterns in suburban areas: recent

trends." Pp. 39–67 in Barry Schwartz (ed.), The Changing Face of the Suburbs. Chicago: University of Chicago Press.

Gorham, William and Nathan Glazer
1976 The Urban Predicament. Washington, D.C.: Urban Institute.

The Greater Washington Research Center
1980 Greater Washington in 1980: A State of the Region Report. Washington, D.C.: The Greater Washington Research Center.

Grier, Eunice and George Grier
1978 Black Suburbanization at the Mid-1970s. Washington, D.C.: Washington Center for Metropolitan Studies.

Guest, Avery M.
1973 "Urban growth and population densities." Demography 10:53–69.

Hamilton, C. Horace
1964 "The negro leaves the South." Demography 1:273–95.

Harris, Chauncy D.
1943 "A functional classification of cities in the United States." The Geographical Review 33:86–99.

Hawley, Amos H.
1971 Urban Society: An Ecological Approach. New York: Ronald Press.

Johnston, R. J.
1971 Urban Residential Patterns. New York: Praeger.

Kobrin, Frances E.
1976 "The primary individual and the family: changes in living arrangements in the United States since 1940." Journal of Marriage and the Family 38:233–239.

Laska, Shirley Bradway and Daphne Spain (eds.)
1980 Back to the City: Issues in Neighborhood Renovation. New York: Pergamon Press.

Levitan, Sar A., William B. Johnston and Robert Taggart
1975 Still a Dream: The Changing Status of Blacks since 1960. Cambridge, MA: Harvard University Press.

London, Kathy
1983 Geographic Mobility in the Detroit Metropolitan Area. Department of Sociology, University of Michigan, Ann Arbor (unpublished doctoral dissertation).

Long, John E.
1981 Population Deconcentration in the United States. Special Demographic Analysis COS-81-5. Washington, D.C.: U.S. Government Printing Office.

Long, Larry H.
1980 "Back to the countryside and back to the city in the same decade." Pp. 61–76 in Shirley Bradway Laska and Daphne Spain (eds.), Back to the City: Issues in Neighborhood Renovation. New York: Pergamon Press.

Long, Larry H. and Celia G. Boertlein
1976 The Geographical Mobility of Americans: An International Comparison. U.S. Bureau of the Census, Current Population Reports: Special Studies: Series P-23, No. 64. Washington, D.C.: U.S. Government Printing Office.

Long, Larry H. and Diane De Are
1981 "The suburbanization of blacks." American Demographics 3(8):16–21.

Masnick, George and Mary Jo Bane
1980 The Nation's Families: 1960–1990. Cambridge, MA: Joint Center for Urban Studies of M.I.T. and Harvard.

Nelson, Howard J.
1955 "A service classification of American cities." Economic Geography 33:86–99.

Nelson, Kathryn P.
1980 "Recent suburbanization of blacks: how much, who and where?" Journal of the American Planning Association 46:287–300.

Norton, Arthur J.
1983 "Family life cycle: 1980." Journal of Marriage and the Family 45:267–75.

Pettigrew, Thomas F.
1980 "Racial change and the intrametropolitan distribution of black Americans." Pp. 52–79 in Arthur P. Solomon (ed.), The Prospective City. Cambridge, MA: M.I.T. Press.

Rogers, Andrei
1975 Introduction to Multiregional Mathematical Demography. New York: Wiley.

Rose, Harold M.
1976 Black Suburbanization: Access to Improved Quality of Life or Maintenance of the Status Quo? Cambridge, MA: Ballinger.

Rossi, Peter H.
1955 Why Families Move. New York: Free Press.

Schnore, Leo F.
1965 The Urban Scene. New York: Free Press.

Shryock, Henry S.
1964 Population Mobility within the United States. Chicago: Community and Family Studies Center.

Speare, Alden, Jr., Sidney Goldstein and William H. Frey
1975 Residential Mobility, Migration and Metropolitan Change. Cambridge, MA: Ballinger.

Taeuber, Irene B.
1972 "The changing distribution of the population of the United States in the twentieth century." Pp. 29–107 in Sara Mills Mazie (ed.), U.S. Commission on Population Growth and the American Future, Reports, Volume 5. Population Distribution and Policy. Washington, D.C.: U.S. Government Printing Office.

Taeuber, Karl E.
1975 "Racial segregation: the persisting dilemma." Annals of the American Academy of Political and Social Science 442:87–96.

Taeuber, Karl E. and Alma F. Taeuber
1965 Negroes in Cities. Chicago: Aldine.

Thomas, Dorothy Swaine
1938 Research Memorandum on Migration Differentials. New York: Social Science Research Council Bulletin 43.

Thornton, Arland and Deborah Freedman
1983 "The changing American family." Population Bulletin 38(4). Washington, D.C.: Population Reference Bureau.

U.S. Bureau of the Census
1963 Census of Population: 1960. Subject Reports. Final Report PC(2)-2C. Mobility for Metropolitan Areas. Washington, D.C.: U.S. Government Printing Office.
1973 Census of Population: 1970. Subject Reports. Final Report PC(2)-2C. Mobility for Metropolitan Areas. Washington, D.C.: U.S. Government Printing Office.
1977 "Projections of population in the United States: 1977 to 2050." Current Population Reports, Series P-25, No. 704. Washington, D.C.: U.S. Government Printing Office.
1983 Census of Population and Housing 1980: Public Use Microdata Samples: Technical Documentation. Washington, D.C.: Data Users Series Division, U.S. Bureau of the Census.
Wilson, William J.
1978 The Declining Significance of Race. Chicago: University of Chicago Press.
Zimmer, Basil G.
1975 "The urban centrifugal drift." Pp. 23–91 in Amos H. Hawley and Vincent P. Rock (eds.), Metropolitan America in Contemporary Perspective. Beverly Hills: Sage.