Wealth, Race, and Inter-Neighborhood Migration

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Racial differences in wealth have often been thought to underlie racial differences in residential segregation and neighborhood attainment, but research supporting this claim is limited. The authors of this article use data from the 1989–2001 waves of the Panel Study of Income Dynamics (PSID), in conjunction with tract-level decennial census data, to examine the effects of household and parental wealth on the migration of black and non-Hispanic white families between neighborhoods comprised of varying percentages of Anglos (i.e., non-Hispanic whites). They find generally modest effects of wealth on these patterns of inter-neighborhood migration. Consistent with one version of the place-stratification model of locational attainment, the effects of both household and parental wealth are stronger among blacks than among non-Hispanic whites, with the sharpest racial difference emerging among renters. Racial differences in household and parental wealth, however, can account for only a trivial portion of the pronounced racial difference in migration into neighborhoods containing larger percentages of Anglo residents. The authors conclude that explanations for the racially stratified inter-neighborhood migration streams that underlie and reinforce black-Anglo residential segregation will need to look beyond the influence of wealth and other socioeconomic resources.

Persistently high levels of residential segregation between blacks and whites in American cities continue to attract the attention of scholars and policymakers. Explanations for racial residential segregation generally focus on three possible mechanisms (Quillian 2002;

Charles 2003). One explanation stresses the desire of blacks and whites to share neighborhoods with members of their own race; racial differences in these residential preferences lead naturally to racial differences in neighborhood location (Clark 1988; Emerson, Yancey, and Chai 2001). A second explanation emphasizes barriers to the migration of blacks into racially mixed and predominantly white neighborhoods (Galster 1988); such barriers include housing market discrimination perpetrated by real estate agents, landlords, and lending institutions, as well as hostility and aggression on the part of potential white neighbors (Massey and Denton 1993; Yinger 1995). A third explanation focuses on racial differences in economic resources. Higher housing costs in white neighborhoods, combined with blacks' lower incomes, leave many blacks unable to afford homes in predominantly white communities (Clark 1986).

Most studies find that racial differences in economic resources can explain only a small fraction of racial residential segregation levels (Alba, Logan, and Stults 2000; Massey and Fischer 1999). As several observers have noted (e.g., Clark 1986; Quillian 2002; Thernstrom and Thernstrom 1997), however, research examining the contribution of racial economic differences to residential segregation has been severely hampered by the inability to consider the independent role of wealth. Not only is wealth thought to enhance migration into more advantaged (and thus "whiter") neighborhoods (Shapiro 2004), but also the substantially larger racial difference in wealth than in income (Oliver and Shapiro 1995) raises the possibility that high levels of residential segregation are attributable in large measure to blacks' restricted access to financial assets—both their own and those of their parents. As Thernstrom and Thernstrom (1997:224) speculate, "wealth, the size of a family's nest egg—a variable ignored in the studies to date—may influence residential patterns more than income does." Importantly, while Thernstrom and Thernstrom, and several other authors, have documented large racial differences in levels of wealth, no one has directly examined the effects of these differences on racial differences in residential outcomes.

In this study we use longitudinal data from the Panel Study of Income Dynamics (PSID), in conjunction with tract-level decennial census data, to examine the effects of household and parental wealth on the migration of black and non-Hispanic white families between neighborhoods of varying racial composition. Our longitudinal analysis of race-specific migration propensities overcomes a critical limitation of cross-sectional designs that attempt to address this issue (e.g., Freeman 2000), namely, that wealth accumulation (especially through homeownership) is a consequence, as well as a determinant, of neighborhood racial composition (Flippen 2004). We explore the possible impact of both household wealth and the wealth of the parents of these householders to answer three questions. First, net of the effects of other factors (including income), do family and parental wealth facilitate migration into neighborhoods that are inhabited by a larger percentage of non-Hispanic whites? Second, do the effects of household and parental wealth on these inter-neighborhood migration patterns vary by race? And third, to what extent can racial differences in migration between neighborhoods of varying racial composition be attributed to racial differences in household and parental wealth?

THEORETICAL AND EMPIRICAL BACKGROUND

Research into the determinants of minority locational attainment is frequently guided by the model of *spatial assimilation,* which holds (among other things) that members of racial and ethnic minority groups seek to convert human capital and financial endowments into greater proximity with the ethnic majority (Massey 1985). Given the correlation between neighborhood racial composition, on the one hand, and neighborhood housing values, on the other, advanced levels of human and financial capital are often prerequisites for purchasing residences in predominantly Anglo communities (Logan, Alba, McNulty, and Fisher 1996). High levels of socioeconomic attainment are also thought to provide minority group members with the incentive to interact with the majority, interactions that are facilitated by physical proximity (Alba and Nee 2003).

To date, most applications of spatial assimilation theory have failed to consider wealth as an independent determinant of residential location despite a number of reasons to believe that, over and above the effects of other socioeconomic resources such as income and education, wealth is likely to increase the likelihood that African American (as well as white) families will locate in "whiter" neighborhoods. For current or prospective homeowners, these financial assets can be used for the outright purchase of homes or, more frequently, down payments on the purchase of homes (Charles and Hurst 2002). Because higher down payments reduce mortgage payments, even among families with the same income those with greater wealth will be able to buy and maintain homes in more expensive neighborhoods.

More generally, wealth provides a "safety net" that cushions families against temporary financial setbacks that might drive them into poor (and hence largely nonwhite) neighborhoods (Shapiro 2004). While these emergency reserves may be important for homeowners,

access to such funds may be especially salient for renters, among whom residential moves are more frequent (Lee, Oropesa, and Kanan 1994). In this context, residential location can be ephemeral, and even a short-term economic setback may result in a move—likely to cheaper housing in a less prosperous neighborhood—unless some accumulated financial resources are available to avoid making such a move. Shapiro's (2004) arguments regarding the liberating effects of wealth suggest that even a small nest egg might provide the sense of security needed for a family to dedicate a larger share of its income to rent housing in a wealthier, whiter neighborhood.

The emerging research on wealth highlights not only the importance of a family's own assets but those of their parents as well (Conley 1999). Parental wealth is likely to facilitate a family's neighborhood attainment in a variety of ways, but its impact on the ability to purchase homes in more expensive areas is particularly important. Oliver and Shapiro (1995) find that a family's first home purchase triggers the second largest transfer of assets between generations, trailing only inheritances following parental death. The families interviewed by Oliver and Shapiro (1995) and Shapiro (2004) describe numerous other ways that parental assets are used to facilitate moves into higher-socioeconomic status (SES) neighborhoods, including paying down payments, mortgage closing costs, and points. While these arguments have focused on the importance of parental wealth for homeowners, these assets are likely to enhance prospects for moving into predominantly white neighborhoods for renters as well, although perhaps somewhat less directly than for homeowners. In addition to subsidizing the costs of a move, parental assets may be used for other obligations (e.g., child care and transportation costs) that enable families to pay higher rents.

RACE, WEALTH, AND NEIGHBORHOOD ATTAINMENT

Racial differences in wealth are substantial and far exceed racial differences in income (Keister 2000; Oliver and Shapiro 1995), largely due to sharp disparities in home equity (Krivo and Kaufman 2004). Levels of parental wealth also differ markedly for blacks and whites (Shapiro 2004). Perhaps as a result, blacks are substantially less likely than whites to receive financial help from their parents for down payments and other forms of assistance (Jayakody 1998), a fact that contributes to significant racial differences in the transition to home ownership (Charles and Hurst 2002). Racial differences in lifetime inheritances also appear to be contributing to a growing racial disparity in wealth (Avery and Rendall 2002).

These racial differences in wealth raise the possibility that differences in the locational attainments of blacks and whites—in particular, differences in the racial composition of their neighborhoods—may be attributable largely, if not entirely, to black-white differences in family or parental financial assets (e.g., Clark 1986). According to spatial assimilation theory, for both black and white householders, family and parental wealth will be positively associated with migration into neighborhoods inhabited by larger percentages of non-Hispanic whites, and controlling for racial differences in wealth (as well as other socioeconomic characteristics) will attenuate black-white differences in the racial composition of destination neighborhoods. Such evidence would support arguments made by Clark (1986) and Thernstrom and Thernstrom (1997) and suggest that explanations for racial residential segregation emphasizing contemporaneous housing discrimination against blacks (Yinger 1995) or the preferences of blacks and whites for neighborhoods of a particular racial composition (Bobo and Zubrinsky 1996; Clark 1992) may be unneeded. On the other hand, a sizable residual racial difference in these migration behaviors even after controlling for racial differences in wealth would imply the need to supplement class-based explanations of racial residential segregation with additional mechanisms.

An alternative to the spatial assimilation model of minority locational attainment is the *place-stratification* model (Logan and Alba 1993; Charles 2003). This model draws attention to the barriers to residential mobility faced by black residents, especially in the form of housing discrimination. The discriminatory practices of real estate agents (Pearce 1979; Yinger 1995), local governments (Shlay and Rossi 1981), and mortgage lenders (Squires and Kim 1995) are assumed to create a racially segmented housing market that obstructs the mobility aspirations of African Americans, espe-

cially of those wishing to move to racially integrated neighborhoods. White stereotyping of, and hostility toward, black residents may also impede blacks' migration into racially mixed or predominantly white neighborhoods (Harris 2001; Krysan and Farley 2002). The place-stratification model also highlights the unwillingness of majority groups to share neighborhoods with minority residents and how whites in particular seek to vacate racially mixed areas (Crowder 2000; Krysan 2002).

Although the place stratification perspective acknowledges that socioeconomic resources such as wealth might significantly influence minorities' access to whiter neighborhoods, this perspective also implies that racial differences in the racial composition of destination neighborhoods will persist even after controlling for racial differences in household and parental wealth, with black households moving to neighborhoods with fewer Anglos compared to whites with similar levels of wealth. In contrast to the spatial assimilation perspective, the place-stratification model of minority locational attainment also anticipates racial differences in the effect of wealth on migration into "more Anglo" neighborhoods. In Logan and Alba's (1993) "weak version" of the place-stratification model, blacks receive greater locational returns to their socioeconomic resources than do whites, but even the most economically advantaged blacks have poorer locational attainments than the least advantaged whites. African Americans require enhanced levels of financial and human capital to attain residence in predominantly Anglo neighborhoods, but these neighborhoods remain open to whites largely regardless of their socioeconomic resources. This version of the place-stratification model thus implies that the impact of wealth on migration into neighborhoods containing larger percentages of whites will be *stronger* for blacks than for whites.

Logan and Alba (1993) also propose a "strong version" of the place-stratification model, in which the effects of economic resources on locational attainments are weaker for minority groups than for majority groups. In this model, housing discrimination reduces the locational return that minority group members (especially African Americans) receive for their human and financial capital.

In contrast, unfettered by discriminatory barriers, members of the white majority are better able to convert their socioeconomic resources into desirable locational outcomes. This version of the place-stratification model thus implies that the impact of wealth on migration into neighborhoods containing larger percentages of whites will be *weaker* for blacks than for whites. Prior studies have generated somewhat inconclusive evidence on the relative merits of these two versions of the place-stratification model (Logan, Alba, and Leung 1996; South and Crowder 1997), but no study has yet tested for racial differences in the effects of wealth on blacks' and whites' ability to achieve spatial proximity to the Anglo majority.

PRIOR RESEARCH

Prior research into the causes of racial residential segregation has generally been unable to explore the degree to which racial differences in either household or parental wealth contribute to the disparate neighborhood locations of blacks and whites. Some studies have shown that levels of residential segregation in cities or metropolitan areas are positively associated with levels of racial income inequality in the area (e.g., Logan, Stults, and Farley 2004), and others have demonstrated that metropolitan-area levels of segregation are high even within socioeconomic groups (Iceland, Sharpe, and Steinmetz 2005; Massey and Fischer 1999; St. John and Clymer 2000). Because these studies, however, rely on U.S. census data, and because the decennial census does not collect data on family or household wealth, these studies cannot assess the degree to which racial differences in wealth might explain racial segregation patterns. The same problem plagues studies that utilize census data to examine the associations between individual-level characteristics and the racial, ethnic, and socioeconomic composition of neighborhoods (c.f., Alba et al. 2000; Logan, Alba, McNulty, and Fischer 1996). Indeed, it has become almost perfunctory for studies of racial residential segregation (e.g., Fischer 2003) and race-specific migration patterns (Quillian 2002; South and Deane 1993) to conclude with the proviso that black-white differences in neighborhood attainment may stem

from the operation of unobserved racially neutral market forces, particularly wealth.

Using non-census sources, two recent studies have examined the association between wealth and neighborhood racial composition, while controlling for other possible determinants, including income. Freeman (2000), using cross-sectional data from the Multi-City Study of Urban Inequality (MCSUI), finds that African Americans' proximity to whites increases slightly with their net worth (even controlling for income). Similarly, Woldoff (2003), using cross-sectional data from the National Longitudinal Study of Youth (NLSY), finds that higher levels of wealth increase blacks' residential proximity to whites and, moreover, that this ostensible effect among blacks is stronger than the effect among whites.

Nonetheless, the ability of these studies to shed light on the causal role of wealth is limited in several ways. First, despite pronounced racial differences in parental wealth and the potentially important role of parents' financial resources in determining adult children's residential options, neither Freeman (2000) nor Woldoff (2003) consider how *parental* wealth might influence racial differences in residential attainment. Second, these past studies fail to examine the extent to which the effects of wealth vary by housing status. The combination of persistent racial differences in housing tenure (e.g., Gyourko and Linneman 1996), strong links between home ownership and wealth (Hurst, Luoh, and Stafford 1998; Oliver and Shapiro 1995), and the positive effect of home ownership on the likelihood of gaining access to whiter neighborhoods (South and Crowder 1998b) highlights the importance of examining how the effects of wealth might differ for renters and homeowners. Finally, the cross-sectional design employed by both Freeman (2000) and Woldoff (2003) leaves these studies open to criticisms related to the fact that wealth accumulation may be endogenous to residential location. Given that housing values—and thus home equity—are strongly affected by the racial composition of the neighborhood (Denton 2001; Flippen 2004; Harris 1999) and because home equity is a key component of family wealth (Oliver and Shapiro 1995), it is possible that the observed association between wealth and residential proximity to whites reflects not an impact of wealth on locational attainment, but rather higher levels of wealth accumulation in predominantly white neighborhoods.[1]

To redress the endogenity problems affecting both aggregate and individual-level cross-sectional analyses, a number of studies have utilized longitudinal data to examine racial differences in mobility patterns (Massey, Gross, and Shibuya 1994; Quillian 2002; South and Crowder 1998b). This research indicates that higher socioeconomic status (e.g., education or income) generally increases the likelihood of African Americans moving to a whiter neighborhood, but the substantial racial difference in residential attainment persists even among householders with similar sociodemographic and economic characteristics. These panel studies, however, have yet to consider the extent to which these racial disparities are attributable to group differences in wealth. Our use of longitudinal data that incorporate measures of both household and parental wealth, and our focus on the differential dynamics among homeowners and renters, allow us to overcome the shortcomings of past research to assess more fully the theoretical explanations for the racially disparate migration patterns that sustain high levels of racial residential segregation.

DATA AND METHODS

Our primary data source for this analysis is the Panel Study of Income Dynamics (PSID). Begun in 1968 with approximately 5,000 families, the sample has been interviewed annually through 1997, and biennially thereafter.[2] New

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[1] Woldoff (2003) is less susceptible than Freeman (2000) to this criticism, since she includes only non-housing wealth in her measure of wealth. However, failing to consider housing equity—and racial differences in housing equity—likely leads to an incomplete picture of the impact of wealth on locational attainment.

[2] Annual response rates for the PSID have ranged near or above 97 percent since 1969 (Hill 1992). While the cumulative attrition over the life of the panel has been nontrivial, several studies have found only modest effects of this attrition on the overall representativeness of the sample, with the characteristics of the panel closely resembling those of samples from the Current Population Survey (Becketti et al. 1988; Fitzgerald, Gottschalk, and Moffitt 1998).

families have been added to the sample as children leave home to form new households (Hill 1992). The PSID has been an extraordinarily rich source of data for analyzing patterns of inter-neighborhood migration (e.g., Massey et al. 1994; Quillian 1999). What makes the PSID uniquely suited for the study of migration between neighborhoods of varying racial and ethnic composition are the PSID-Geocode Match Files that link the addresses of the PSID respondents to the corresponding census codes for tracts and other geographic areas. We use census tracts to represent neighborhoods. While census tracts are imperfect operationalizations of neighborhoods, they likely come the closest of any commonly available spatial entity in approximating the usual conception of a neighborhood (Jargowsky 1997; White 1987), and their use in this capacity is widespread in sociological and demographic research. Attaching census data on the racial composition of census tracts at each annual interview allows us to track prospectively which PSID households move between neighborhoods made up of varying percentages of non-Hispanic whites.

SAMPLE SELECTION. We select black and non-Hispanic white PSID respondents who were between the ages of 18 and 59 during the period 1989 to 2001 and who were classified as heads of the household at the beginning *or* at the end of a migration interval.[3] Many moves, of course, are undertaken by families, and thus a decision to move made by the household head (or made jointly by the family) perforce means a move by other family members. If all respondents were included in the sample, a single move would be counted several times, one for each family member. Imposing this selection criterion avoids counting as unique and distinct those moves made by members of the same family (e.g., children and spouses) since only moves by the head of the household are included. At the same time, moves by family members who were not the household head at the beginning of the interval but become the head at the end of the interval—for example, when a child leaves the parental home or when an ex-husband or ex-wife establishes a new residence—are included in our effective sample.[4] We focus on the period after 1988 because information regarding PSID respondents' parental wealth was first gathered in that year; data for interview years after 2001 were not available at the time of this study. Our sample includes 2,943 black householders and 4,291 Anglo householders.

DEPENDENT VARIABLES. We follow prior work by treating inter-neighborhood residential mobility as a two-stage process involving, first, the decision to move and, second, the choice of destination (Massey et al. 1994). Accordingly, the first dependent variable in our analysis is a dichotomous variable indicating whether the respondent *moved out of the census tract of origin* between PSID interviews. The second (and more theoretically important) dependent variable is the *percentage of the population in the census tract of destination that is non-Hispanic white* (i.e., Anglo). Tract-level census data are drawn from the Neighborhood Change Database (NCDB) in which census tract boundaries have been matched across the 1980, 1990, and 2000 censuses (GeoLytics 2003). The consistency of tract boundaries in the NCDB allows us to employ linear interpolation based on data from these censuses to describe the racial and ethnic composition of PSID respondents' census tracts and metropolitan areas of residence during intercensal years. Our sample includes individuals making intra-metropolitan as well as those making inter-metropolitan moves.

INDEPENDENT VARIABLES. Our key explanatory variables are measures of the respondents' household wealth and that of their parents. The PSID gathered data on household wealth in 1984, 1989, 1994, 1999, and 2001. In each of these years information was collected separately on the level of assets of various types, including (but not limited to) checking and savings accounts, businesses, vehicles, stocks, bonds, trusts, housing equity, and other real estate. The PSID household wealth data generally compare favorably in quality to other

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[3] Hereafter we use the terms "non-Hispanic white" and "Anglo" interchangeably.

[4] Omitting respondents who became a household head over the migration interval does not alter our main findings.

sources of wealth data (Juster, Smith, and Stafford 1999). We use total household wealth in 1989 to predict inter-neighborhood biennial migration between the 1989 and 1995 interviews, total household wealth in 1994 to predict inter-neighborhood migration between the 1995 and 1999 interviews, and total household wealth in 1999 to predict inter-neighborhood migration between the 1999 and 2001 interviews.[5] All household wealth figures are measured in thousands of constant year 2000 dollars.

In 1988 only, the PSID also collected data from respondents on the non-pension wealth (net worth) of the living parents of household heads and their spouses. Respondents were asked, "Suppose your (and your spouse's) parents were to sell off all their major possessions, including their home, turn their investments and all their other assets into cash and pay off all of their debts. Would they have money left over, break even, or be in debt? If they have money left over, how much would it be?" For respondents who could not estimate an actual total, bracketed response categories were suggested. For these relatively rare cases, we used the midpoints of bracketed categories and assumed a value of $250,000 for the top category ($100,000 or more). We use the sum of the head's and (if present) spouse's estimated parental wealth, measured in thousands of constant year 2000 dollars.

Other independent variables include demographic, life-cycle, socioeconomic, and geographic characteristics. Race is captured by a dummy variable distinguishing black from Anglo respondents. Respondents' education is measured by years of school completed. Family income refers to the total taxable income of husband and wife, measured in thousands of constant year 2000 dollars. Age is measured in years, and its squared value is included to capture nonlinear effects on the propensity to migrate. The sex of the household head is captured by a dummy variable. Marital status is a dummy variable distinguishing respondents who are married or are long-term cohabitors from the unmarried at the beginning of the migration interval. The presence of children is measured by the total number of children in the household at the beginning of the migration interval. Home ownership is a dummy variable distinguishing owners from renters. Residents of public housing are distinguished from residents of private-sector housing by a separate dummy variable. Household crowding is measured by the number of persons per room. Duration of residence is measured by a dummy variable scored 1 for respondents who have resided in their current residence for three or more years. We also control for the percentage of the population that is non-Hispanic white in both the tract of origin and in the metropolitan area of origin and destination. All of these variables except for respondents' sex and race are measured biennially at the beginning of each migration interval and treated as time-varying covariates.[6]

ANALYTICAL STRATEGY. Because we have information on the racial composition of the respondents' census tract at each interview, it is possible to infer more than one residential move for each respondent between 1989 and 2001. Accordingly, we structure the data file in "person-period" format, each observation pertaining to the two-year period between interviews. We use a two-year period rather than a single-year period to accommodate the PSID's shift to biennial interviews beginning in 1997. The 2,943 black householders in our sample contribute 8,632 person-periods, and the 4,291 non-

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[5] We do not use the 1984 household wealth data; our observation period begins after the parental wealth data were collected in 1988. We do not use the 2001 wealth data; we have no information on migration behavior subsequent to that interview. In supplementary analyses, we explored effects of the separate components of wealth on inter-neighborhood migration patterns (results available from the authors). Among blacks, home equity and stock value are the most important facilitators of migration into "more Anglo" neighborhoods, while among Anglos, assets held in checking and savings accounts are the most important predictors of neighborhood destinations.

[6] In the models predicting migration out of the census tract of origin, we use as an independent variable the percentage of the population that is Anglo in the metropolitan area of origin. In the models predicting the percentage Anglo in the tract of destination, we use as an independent variable the percentage of the population that is Anglo in the metropolitan area of destination.

Hispanic white householders contribute 13,743 person-periods.

We use logistic regression to examine the effects of the explanatory variables on the likelihood that respondents will move out of their origin tract between PSID interviews. Then, we estimate linear regression models in which the dependent variable is the percentage of the population in the tract of destination that is Anglo.[7] Given that this variable is unobserved for nonmovers, we estimate these models using a maximum-likelihood Heckman procedure (Heckman 1979). In our application of the Heckman procedure, the "selection" equation includes all of the regressors described earlier, while the "substantive" equation (percentage Anglo in the destination tract) omits the socio-demographic predictors (age, sex, marital status, children, public housing, duration of residence, and household crowding), because their influence is restricted largely to the likelihood of moving out of the origin tract. Our application of a two-stage modeling approach thus provides a dynamic perspective to the cross-sectional studies of locational attainment that provide part of the empirical foundation for our study.[8]

Because the same PSID respondent can contribute more than one person-period to the analysis, and because inter-neighborhood mobility is a repeatable event, the usual assumption of the stochastic independence of error terms underlying tests of statistical significance is violated (Bye and Riley 1989). We correct for this nonindependence of observations using the cluster procedure available in Stata to compute robust standard errors (StataCorp 2005).

RESULTS

Table 1 provides an initial description of the destinations of mobile black and white householders, separately for renters (Panel A) and homeowners (Panel B). For the sake of comparison, origin and destination neighborhoods are categorized using criteria paralleling those employed in past mobility research (e.g., South and Crowder 1998b).[9] The table reveals pronounced and now well-known differences in destinations for black and white movers (e.g., Massey et al. 1994; Quillian 2002; South and Crowder 1998b). Among those black renters who move to a different tract during the mobility interval, very few move into predominantly Anglo neighborhoods. For example, among black renters originating in racially mixed neighborhoods, only 2.9 percent move to a predominantly Anglo neighborhood. In contrast, almost 28 percent of Anglo renters originating in a racially mixed tract end up in an Anglo-dominated tract. Among respondents who own their own home, a very similar pattern emerges. Nearly one-third (31.2 percent) of mobile Anglo homeowners originating in racially mixed neighborhoods move to a predominantly Anglo tract. This is true for only 5.5 percent of mobile black homeowners originating in mixed tracts, for whom mobility into a predominantly non-Anglo tract is about three times more likely (16.3 percent). Among both blacks and Anglos, renters tend to be less likely than homeowners to move to "more Anglo" neighborhoods. For example, 42.1 percent (41.1 + 1.0) of mobile black renters originating in a predominantly non-Anglo tract move to a racially mixed or predominantly Anglo tract; the corresponding probability among mobile black homeowners is 47.7 percent. Among mobile Anglo renters originating in a racially mixed tract, 27.6 percent move to a predominantly Anglo tract, compared to 31.2 percent of mobile Anglo homeowners.

Overall, the figures in Table 1 indicate that, regardless of the racial composition of the origin neighborhood, blacks are much less likely

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[7] Applying a logit transformation to this bounded dependent variable results in substantively similar findings. We present the results using the destination tract percentage Anglo in its original metric for ease of interpretation.

[8] Although a conditional logit discrete-choice approach is also possible (e.g., White and Liang 1998), the large number of census tracts that could serve as possible destinations for movers makes such a strategy difficult to implement.

[9] The racially mixed category used in Table 1, while defined in accordance with prior research, contains a diversity of neighborhood types. In fact, this category encompasses the dramatically different average percentage Anglo in the origin and destination tracts of black and white householders (see Table 2). This heterogeneity in the racially mixed category of tracts underscores the utility of treating tract racial composition as a continuous variable in subsequent analyses.

Table 1. Probabilities of Entering Predominantly Anglo, Racially Mixed, and Predominantly Non-Anglo Census Tracts for Mobile Householders, by Race, Home Ownership, and Origin-tract Racial Composition, Panel Study of Income Dynamics, 1989–2001

| | Tract Type at Year t+2 | | | | |
Tract Type at Year t	Predominantly Non-Anglo	Racially Mixed	Predominantly Anglo	Total	N of Person-periods
Panel A: Mobile Renters					
Black householders					
Predominantly non-Anglo	.579	.411	.010	1.000	1,118
	(647)	(460)	(11)		
Racially mixed	.245	.726	.029	1.000	1,614
	(396)	(1,172)	(46)		
Predominantly Anglo	.138	.741	.121	1.000	58
	(8)	(43)	(7)		
Anglo householders					
Predominantly non-Anglo	—	1.000	—	1.000	13
	(0)	(13)	(0)		
Racially mixed	.006	.718	.276	1.000	1,369
	(8)	(983)	(378)		
Predominantly Anglo	—	.376	.624	1.000	1,002
	(0)	(377)	(625)		
Panel B: Mobile Homeowners					
Black householders					
Predominantly non-Anglo	.523	.449	.028	1.000	176
	(92)	(79)	(5)		
Racially mixed	.163	.782	.055	1.000	455
	(74)	(356)	(25)		
Predominantly Anglo	.115	.615	.269	.999	26
	(3)	(16)	(7)		
Anglo householders					
Predominantly non-Anglo	.100	.700	.200	1.000	10
	(1)	(7)	(2)		
Racially mixed	.004	.684	.312	1.000	899
	(4)	(615)	(280)		
Predominantly Anglo	.002	.290	.708	1.000	1,066
	(2)	(309)	(755)		

Note: Entries in parentheses are cell frequencies of person-period observations. Predominantly non-Anglo tracts are less than 10% Anglo; racially mixed tracts are between 10% and 89% Anglo; and predominantly Anglo tracts are greater than 89% Anglo. Probabilities may not add to 1.000 because of rounding.

than Anglos to move to neighborhoods that are predominantly Anglo. While home-ownership status appears to play an important role in determining the destinations of black movers, with black renters less likely than black homeowners to move into a predominantly Anglo or racially mixed tract, there are sharp racial differences in destination outcomes even among Anglo and black householders with the same ownership status. The remainder of the analysis focuses on the extent to which these racially differentiated mobility patterns can be explained by racial differences in household and family wealth.

Table 2 presents descriptive statistics for all variables used in the analysis, separately for blacks and non-Hispanic whites. Blacks are more likely than Anglos to move out of their neighborhood of origin. Over the typical two-year migration interval, approximately 40 percent of black householders, but only 32 percent of Anglo householders, move to a different census tract. Perhaps more importantly, differences between black and Anglo inter-neighborhood movers in the racial composition of their new neighborhoods are pronounced. Conditional upon moving out of their origin tract, black householders move to tracts whose population

Table 2. Descriptive Statistics for Variables Used in the Analysis of Inter-Tract Migration, by Race: Panel Study of Income Dynamics, 1989–2001

		Black		Anglo	
	Description	Mean	SD	Mean	SD
Dependent Variables					
Changed tract	Whether R moved out of origin tract between t and t+2 (1 = yes)	.40	.49	.32	.46
% Anglo in destination tract[a]	% of population in destination tract that is nHw	34.47	30.74	82.92	17.50
Independent Variables					
Household wealth	Total household wealth in 1989, 1994, or 1999[b]	30.44	82.45	185.17	684.69
Parental wealth	Net nonpension wealth of living parents in 1988[b]	36.22	101.32	247.54	627.89
Education	R's completed years of schooling, time t	12.14	2.19	13.60	2.33
Family income	Taxable income of R and spouse, time t[b]	27.07	27.65	58.90	66.09
Age	R's age, in years, at time t	36.11	9.54	38.02	10.10
Female	R is female (1 = yes)	.47	.50	.19	.40
Married	R is married at time t (1 = yes)	.40	.49	.68	.47
Children	Number of children in R's household, time t	1.37	1.35	.97	1.13
Homeowner	R owns home at time t (1 = yes)	.35	.48	.68	.47
Crowding	Persons per room in R's dwelling, time t	.66	.39	.50	.27
Public housing	R lives in public housing, time t (1 = yes)	.13	.34	.01	.12
Duration of residence	R has resided in current dwelling at time t for 3+ years (1 = yes)	.49	.50	.57	.49
% Anglo in origin tract	% of population in origin tract that is nHw	31.22	29.66	85.34	16.26
% Anglo in origin MSA	% of population in MSA of origin that is nHw	67.56	12.76	77.34	13.51
% Anglo in destination MSA	% of population in MSA of destination that is nHw	66.92	13.32	75.55	14.14
N of Person-periods		8,632		13,743	
N of Persons		2,943		4,291	

Note: SD = standard deviation; nHw = non-Hispanic white; $ = US dollar; MSA = metropolitan statistical area; R = respondent.

[a] Computed for movers only.

[b] Measured in thousands of constant year 2000 dollars.

is on average about 34 percent non-Hispanic white. In sharp contrast, mobile Anglo householders relocate to tracts that on average are comprised of 83 percent Anglos.

Racial differences in both household and parental wealth are also pronounced. At the beginning of the typical two-year period defining the migration intervals, the mean black householders' net worth is approximately $30,000, compared to over $185,000 for Anglo householders. The racial difference in household wealth observed here is reasonably similar to that reported by Kennickell (2003), using data from the Survey of Consumer Finances. For 1995 (the approximate midpoint of our observation period), Kennickell (2003) reports a ratio of mean non-Hispanic white-to-black wealth of 5.7; our estimate of the non-Hispanic white to black ratio, pooled over the PSID survey years, is 6.1.[10] The racial difference in parental wealth is even larger. On average, black householders report the net worth of their parents to be about $36,000, while Anglo householders estimate the net worth of their parents to be slightly over $247,000—a white-to-black ratio of 6.8.

Black disadvantage in other dimensions of socioeconomic status is also apparent. Black householders report on average completing 12.1 years of school, versus 13.6 years for Anglo householders. The mean family income of black householders (about $27,000) is about half that of the Anglo householders (about $59,000). Consistent with prior studies, then, the racial difference in income pales in comparison to racial differences in wealth.

Table 2 also presents descriptive statistics for the conventional sociodemographic and socioeconomic predictors of inter-neighborhood migration and neighborhood attainment. Although black and Anglo householders tend to be of roughly the same age (mean for blacks = 36.1, mean for Anglos = 38.0), a much larger percentage of black than Anglo householders are female (47 percent for blacks, 19 percent for Anglos), and a much smaller percentage of black than Anglo householders are married or

are long-term cohabitors (40 percent for blacks, 68 percent for Anglos). Black households tend to have more children under the age of 19 living at home (mean for blacks = 1.37, mean for Anglos = .97). Black householders are substantially less likely than Anglo householders to own their homes (35 versus 68 percent), and they tend to live in more crowded dwellings (.66 persons per room for blacks versus .50 persons per room for Anglos). A much greater percentage of black than Anglo householders resides in public housing (13 versus 1 percent). Reflecting blacks' higher rate of residential mobility, as of the beginning of the migration interval, black householders have resided in their current dwelling for a shorter amount of time than have Anglo householders; about 49 percent of blacks, but over 57 percent of Anglos, have lived in their current dwelling for three or more years.

Finally, blacks and non-Hispanic whites differ substantially in the racial composition of their origin tracts and, to a lesser extent, their metropolitan areas of residence. Black householders (including both inter-tract movers and non-movers) begin the typical migration interval in a tract comprised of 31 percent Anglos, while Anglo householders begin the typical migration interval in a tract comprised of 85 percent Anglos. While black householders live in metropolitan areas with an average racial composition that is 68 percent Anglo, Anglo householders live in metropolitan areas with an average racial composition that is 77 percent Anglo.

The regression models in Table 3 examine how these factors are related to the likelihood that black and Anglo householders will move out of their tract of origin over a two-year span. This model is also the basis for the adjustment for potential selection sample bias incurred by the inability to observe the racial/ethnic composition of destination tracts for non-movers. Model 1 of Table 3 shows the coefficients from the additive, multivariate equation, and tells a generally familiar story regarding the sociodemographic and life-cycle determinants of geographic mobility. The odds of moving from the tract of origin decline significantly with age, but at a decreasing rate. Married householders are significantly less likely than unmarried householders to move, and number of children in the household is inversely related to

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[10] We also observe a slight decline in the ratio of non-Hispanic white-to-black mean household wealth in our sample, dropping from 6.4 in 1989 to 6.3 in 1994 to 5.7 in 1999.

Table 3. Coefficients for Logistic Regression Analysis of Migration Out of Origin Census Tract: Panel Study of Income Dynamics, 1989–2001

	Model 1	Model 2
Black	−.074	−.894***
	(.056)	(.133)
Household Wealth[a]	−.008*	−.008*
	(.004)	(.004)
Parental Wealth[a]	−.000	.000
	(.004)	(.004)
Education	.022**	.020*
	(.008)	(.008)
Family Income	.001**	.001**
	(.000)	(.000)
Age	−.159***	−.160***
	(.013)	(.013)
Age^2	.001***	.001***
	(.000)	(.000)
Female	.091	.088
	(.049)	(.049)
Married	−.237***	−.247***
	(.048)	(.048)
Children	−.078***	−.070***
	(.018)	(.018)
Homeowner	−.956***	−.954***
	(.041)	(.041)
Crowding	.317***	.312***
	(.060)	(.060)
Public Housing	−.337***	−.319***
	(.066)	(.067)
Duration of Residence	−.329***	−.327***
	(.036)	(.036)
% Anglo in Origin Tract	.000	−.008***
	(.001)	(.002)
% Anglo in Origin MSA	−.006***	−.003*
	(.001)	(.001)
Interactions		
Black × household wealth[a]		.047
		(.029)
Black × parental wealth[a]		.001
		(.026)
Black × % Anglo in origin tract		.012***
		(.002)
Constant	3.834***	4.387***
Likelihood Ratio χ^2	2,558.29	2,570.45
N of Person-periods	22,375	22,375
N of Persons	7,234	7,234

Note: Entries are logistic regression coefficients with robust standard errors in parentheses. MSA = metropolitan statistical area; N = number.

[a] Coefficients and standard errors are multiplied by 100.

* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed).

the odds of leaving the tract of origin. Home ownership, residence in public housing, and a longer duration of residence in the current dwelling all significantly deter inter-neighborhood migration, while household crowding sig-

nificantly increases the odds of leaving the tract of origin. For the sample as a whole, the percentage of the population in the origin tract that is non-Hispanic white is not significantly associated with moving out, but the percentage of

the metropolitan area population that is Anglo is inversely associated with the odds of leaving the tract of origin.

As shown in Model 1, the effects of the socioeconomic explanatory variables are somewhat mixed. Education and family income are both significantly and positively associated with out-migration from the neighborhood, but the coefficient for parental wealth is nonsignificant. The coefficient for household wealth is significantly negative, but fairly weak. To illustrate, a difference of $100,000 in household wealth reduces the (net) odds of moving out of the origin neighborhood by only about 1 percent [$.99 = e^{(-.008)}$]. This deterrent effect of household wealth on inter-neighborhood geographic mobility might reflect the difficulties in selling (and buying) more expensive housing units.

The results in Table 3 also provide little evidence that racial differences in wealth can account for racial differences in inter-tract mobility. When the other predictors of neighborhood out-migration are controlled, the racial difference in inter-tract mobility observed in Table 2 completely disappears; the coefficient for black householders in Model 1 of Table 3 is negative but small and statistically nonsignificant. (The bivariate racial difference, shown in Table 2, is statistically significant.) There is no evidence, however, that this attenuation of the effect of race reflects the effect of wealth. In supplementary analyses, we explored the reasons for the sharp diminution in the racial difference in inter-tract migration when other predictor variables are controlled (results available from the authors). By far the most important variable accounting for the higher gross rate of migration among blacks than among Anglos is home ownership. Blacks are substantially less likely than Anglos to own their homes, and homeowners are substantially more likely than renters to move. Controlling only for home ownership (equation not shown) causes the coefficient for *black* race to become *negative* and statistically significant. Thus, blacks are significantly less likely than non-Hispanic whites of similar housing status to move, a finding consistent with claims that black households face greater barriers than white households to residential mobility (Crowder 2001; South and Deane 1993). In contrast, racial differences in household and

parental wealth do little to explain racial differences in inter-neighborhood migration; controlling only for these variables, either singly or in combination, leaves the coefficient for *black* positive, quite strong, and statistically significant (equations not shown).

Model 2 of Table 3 allows the effects on inter-neighborhood migration of three explanatory variables—household wealth, parental wealth, and tract-of-origin racial composition (percentage Anglo)—to vary between black and Anglo householders by adding to Model 1 the appropriate product terms. As indicated by the nonsignificant coefficients for the interaction terms involving the two wealth variables, we cannot reject the null hypotheses that the slopes for blacks and Anglos are equal. Thus, it appears that the effects of both parental and household wealth on the likelihood of moving are roughly similar for black and Anglo householders. In contrast, the coefficient for the product term representing the interaction between race and the percentage of the population in the tract of origin that is Anglo is significant, and suggests markedly different effects of neighborhood racial composition on the likelihood of moving out of the origin tract between blacks and Anglos. Specifically, the negative coefficient for the tract percent Anglo suggests that among non-Hispanic white householders a 10-point difference in the percentage of the tract population that is Anglo *decreases* the predicted odds of out-migration by 8 percent [$-.08 = e^{(-.008)(10)} - 1$]. In contrast, the negative coefficient for the tract percent Anglo and the larger positive interaction term suggests that among black householders a 10-percentage point difference in the percentage Anglo in the tract of origin *increases* the predicted odds of leaving the tract by just over 4 percent [$.04 = e^{(-.008+.012)(10)} - 1$]. Race-specific models (not shown) confirm that these divergent effects for black and Anglo householders are both statistically significant. Thus, net of the effects of other established predictors of inter-neighborhood migration, black households tend to move out of neighborhoods made up of relatively large Anglo populations, while Anglos tend to remain in these types of neighborhoods.

DETERMINANTS OF NEIGHBORHOOD RACIAL COMPOSITION

The relatively weak effects of household and parental wealth on black and Anglo householders' propensity to migrate out of their neighborhoods of residence imply that wealth does not play a particularly important role for this dimension of the locational attainment process. Theoretical arguments for wealth's role in shaping patterns of racial residential segregation, however, are concerned more with the racial composition of the neighborhoods that black and Anglo householders move to than with patterns of neighborhood out-migration per se. Accordingly, Table 4 presents the results of a series of linear regression models examining the determinants of the percentage of the destination tract population that is Anglo. As noted earlier, because the racial composition of the destination tract is unobserved for non-movers, these regression models apply a Heckman correction in which all of the independent variables shown in Table 3 are used in the selection equation, but only the key demographic, socioeconomic, and geographic variables (race, household wealth, parental wealth, education, family income, home ownership,

Table 4. Coefficients for Linear Regression Analysis of the Percentage of the Population Anglo in Tract of Destination: Panel Study of Income Dynamics, 1989–2001

	Pooled				Black Model 5	Anglo Model 6
	Model 1	Model 2	Model 3	Model 4		
Black	−47.252***	−24.595***	−24.537***	−26.037***		
	(.775)	(.913)	(.913)	(.975)		
Household Wealth[a]			.014	−.019	1.256**	.056
			(.039)	(.039)	(.436)	(.039)
Parental Wealth[a]			.036	.016	1.155*	.039
			(.021)	(.022)	(.548)	(.020)
Education		.578***	.572***	.532***	1.005***	.116
		(.111)	(.112)	(.111)	(.247)	(.094)
Family Income		.009	.009	.009	.049**	.006
		(.005)	(.005)	(.005)	(.018)	(.005)
Homeowner		1.032	1.037	.722	3.398	−.395
		(.971)	(.970)	(.976)	(2.252)	(.560)
% Anglo in Origin Tract		.352***	.352***	.346***	.376***	.251***
		(.015)	(.015)	(.015)	(.019)	(.021)
% Anglo in Destination MSA		.500***	.500***	.505***	.557***	.512***
		(.019)	(.020)	(.020)	(.034)	(.022)
Lambda (λ)	19.630***	4.257**	4.227**	4.363**	6.716	3.233***
	(1.931)	(1.428)	(1.428)	(1.438)	(3.753)	(.589)
Interactions						
Black × HW[a]				2.057***		
				(.447)		
Black × PW[a]				1.510*		
				(.599)		
Constant	64.138***	3.118	3.167	4.001	−35.396***	18.567***
Wald χ^2	3716.38	13479.63	13498.35	13559.09	1351.77	1304.52
N of Uncensored observations	7,806	7,806	7,806	7,806	3,447	4,359
N of Censored observations	14,569	14,569	14,569	14,569	5,185	9,384
N of Person-periods	22,375	22,375	22,375	22,375	8,632	13,743
N of Persons	7,234	7,234	7,234	7,234	2,943	4,291

Note: Entries are regression coefficients with robust standard errors in parentheses. HW = household wealth; PW = parental wealth; MSA = metropolitan statistical area; N = number.
[a] Coefficients and standard errors are multiplied by 100.
* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed).

and the percent Anglo in the tract and metropolitan area) are included in the substantive equation predicting the racial composition of the neighborhood of destination.[11]

Model 1 of Table 4 includes only householder's race as a predictor variable. The very strong, negative, and statistically significant coefficient for *black* race indicates that on average black householders move to neighborhoods with Anglo population percentages approximately 47 points below that of the neighborhoods that non-Hispanic white householders move to. The positive and statistically significant coefficient for the sample selection term (λ) indicates that householders with a higher latent probability of moving out of their origin neighborhood move to tracts with larger percentages of Anglo residents.

Model 2 adds to Model 1 the conventional socioeconomic determinants of locational attainment (education and family income), the indicator of home ownership, and the two measures of geographic context (percent Anglo in the tract of origin and the percent Anglo in the metropolitan area of destination). As anticipated by classical theories of spatial assimilation, migration into "more Anglo" neighborhoods is positively associated with education, family income, and home ownership, although only the net effect of education achieves statistical significance. The percentage of the origin tract population that is Anglo is strongly and positively related to the percentage of the destination tract population that is Anglo, thus indicating considerable similarity in the racial composition of householders' old and new neighborhoods. The percentage of the population in the destination metropolitan area is also strongly and positively associated with the percentage of the destination tract population that

is Anglo, likely reflecting the fact that, by definition, predominantly Anglo metropolitan areas are comprised of predominantly Anglo neighborhoods, thus constraining movers to relocate to tracts with relatively large percentages of Anglos.

Controlling for these additional predictors of destination-tract racial composition sharply reduces the racial difference in the percentage of the population that is Anglo in the destination tract. When these explanatory variables are considered, the coefficient for *black* drops almost in half—from –47.252 in Model 1 to –24.595 in Model 2. In supplementary analyses we explored which of the added explanatory variables most accounted for this racial difference by adding them singly to Model 1. By far the most important explanation for the bivariate racial difference observed in Model 1 is the black-Anglo difference in the racial composition of the origin tract. Controlling solely for the percentage Anglo in the tract of origin reduces the racial difference in the percentage Anglo in the tract of destination by about half (equation not shown). In contrast, net of the effects of the racial composition of the origin tract and other predictors, black-Anglo differences in householders' education attainment, family income, home ownership, and the racial composition of the metropolitan area do little to explain the difference in the racial composition of the neighborhoods that blacks and Anglos move to. Thus, a large but by no means complete part of the reason why blacks move to neighborhoods that are substantially less Anglo than the neighborhoods that non-Hispanic whites move to is that blacks originate in neighborhoods that are substantially less Anglo than the neighborhoods that non-Hispanic whites originate in.

There are several possible explanations for this result. One possibility is that the racial composition of the origin tract is capturing the racial composition of adjacent or otherwise nearby tracts that are most likely to serve as the destinations for movers. Under this "geography of opportunity" explanation, blacks are less likely than Anglos to move to "more Anglo" neighborhoods because the neighborhoods that blacks reside in are more likely to be surrounded by neighborhoods with relatively few Anglos. Given that most moves are short-distance moves, this ecological patterning would lead blacks to move to tracts that contain fewer Anglos than the

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[11] We acknowledge the considerable debate over the utility of the standard Heckman correction for sample selection bias and the varying conditions under which its application increases the accuracy of regression coefficient estimates (Stolzenberg and Relles 1997; Winship and Mare 1992). Accordingly, we experimented with alternative procedures, including simple ordinary least squares (OLS) models based on the selected observations (i.e., inter-tract movers). The results from these experiments suggested strongly that our substantive findings are not appreciably affected by the Heckman estimation.

tracts to which Anglos move. An alternative explanation is that neighborhood-of-origin racial composition is at least partially capturing the residential preferences of blacks and Anglos, with members of both groups tending to reside in neighborhoods of their preferred racial composition. This explanation implies that blacks are less likely than Anglos to move to "more Anglo" neighborhoods because blacks have a stronger preference than Anglos for racially mixed or predominantly black neighborhoods. Future research incorporating measures of the racial composition of spatially proximate neighborhoods and individual preferences for neighborhoods of a given racial composition might help adjudicate among these (and other) explanations. Importantly for our purposes, however, even after adjusting for the racial composition of the origin tract and the effects of the other predictors, blacks move to neighborhoods that on average contain 25 percentage points fewer Anglos than do the neighborhoods to which Anglos move (Table 4, Model 2)—a large and statistically significant difference.

The results of Model 3 speak directly to the role of wealth in the locational attainment process by adding to Model 2 the measures of household wealth and parental wealth. Although the coefficients for both variables are, as hypothesized, positive, neither coefficient attains statistical significance. Not surprisingly, then, controlling for these measures of wealth does virtually nothing to explain the net black-Anglo difference in the racial composition of the destination tract: the coefficient for *black* declines only negligibly from Model 2 (b = –24.595) to Model 3 (b = –24.537) and remains statistically significant.

As noted earlier, the place-stratification model of locational attainment argues that the impact of socioeconomic resources on neighborhood racial composition varies by race. The strong version of this model proposes that blacks are less able than non-Hispanic whites to convert socioeconomic resources into spatial proximity with Anglos, while the weak version posits the reverse. Model 4 of Table 4 tests these expectations by adding to Model 3 the product terms representing the interactions between householders' race, on the one hand, and household and parental wealth, on the other. Consistent with the weak version of the place-stratification model, the coefficients for both product terms

are positive and statistically significant. The facilitative impact of both household wealth and parental wealth on migration into more Anglo tracts is significantly stronger among blacks than among non-Hispanic whites.

To show these effects more clearly, Models 5 and 6 of Table 4 estimate the additive model (Model 3) separately for black and Anglo householders, respectively. Among blacks, the coefficients for both household wealth and parental wealth are positive and statistically significant, but fairly modest in size. A \$100,000 difference in either household or parental wealth (equaling about .8 of a standard deviation in household wealth and about 1 standard deviation in parental wealth) translates into a predicted difference of only about 1 to $1\frac{1}{2}$ points in the percentage of the destination tract that is Anglo. Among Anglo householders, the coefficient for parental wealth just barely fails to attain significance (p = .054), but it is even weaker than the corresponding coefficient for blacks. Among Anglos, a difference of \$100,000 in parental wealth translates into a predicted difference of only .039 points in the percentage of the destination-tract population that is Anglo. The effect of household wealth among Anglos is slightly larger (b = .056) but does not approach statistical significance (p = .152).

Despite its weak net effect on the racial composition of the destination neighborhood, home ownership is implicated in arguments linking wealth to the process of residential attainment. The sharp racial differences in housing status and the effects of home ownership on the likelihood of moving (Table 3) recommend examining the extent to which the effects of wealth on neighborhood destinations, and racial differences therein, differ for renters and homeowners. Accordingly, Table 5 presents a series of linear regression models predicting the percentage Anglo in the destination tract separately for black and Anglo homeowners and renters.

Model 1 of Table 5 shows that, among black renters, the effects of both parental and household wealth on the destination percentage Anglo are positive and statistically significant. That these effects mirror those among all blacks (Table 4, Model 5) is not surprising given that a large majority of the black householders in the sample are renters (see Table 2). In contrast, among black homeowners (Table 5, Model 2) the effects of both household and parental

Table 5.   Coefficients for Linear Regression Analysis of the Percentage of the Population Anglo in Tract of Destination, by Race and Home Ownership: Panel Study of Income Dynamics, 1989–2001

	Black		Anglo	
	Renters Model 1	Homeowners Model 2	Renters Model 3	Homeowners Model 4
Household Wealth[a]	1.258**	1.394	.035	.095*
	(.484)	(.947)	(.063)	(.038)
Parental Wealth[a]	1.485*	−.155	.098**	.010
	(.647)	(1.204)	(.036)	(.024)
Education	1.105***	.612	.107	−.010
	(.294)	(.476)	(.131)	(.135)
Family Income	.058**	.042**	.040***	−.000
	(.021)	(.040)	(.011)	(.005)
% Anglo in Origin Tract	.356***	.438***	.216***	.307***
	(.021)	(.040)	(.026)	(.032)
% Anglo in Destination MSA	.531***	.662***	.545***	.477***
	(.037)	(.078)	(.029)	(.032)
Lambda (λ)	2.986	9.073**	.854	3.356***
	(5.087)	(2.932)	(1.231)	(.731)
Constant	−31.643***	−38.423***	19.431***	18.079***
Wald χ^2	843.80	419.02	781.43	591.51
N of Uncensored Observations	2,790	657	2,384	1,975
N of Censored Observations	2,838	2,347	2,001	7,383
N of Person-periods	5,628	3,004	4,385	9,358
N of Persons	2,046	897	1,617	2,674

Note: Entries are regression coefficients with robust standard errors in parentheses. MSA = metropolitan statistical area; N = number.

[a] Coefficients and standard errors are multiplied by 100.

* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed).

wealth are statistically nonsignificant, likely owing in large part to the relatively small number of cases in this category. Among Anglo householders, the contrast between homeowners and renters is more pronounced. Among Anglo renters (Model 3), the percentage Anglo in the tract of destination increases modestly, but statistically significantly, as a function of parental wealth, but household wealth appears to have no significant net effect. In contrast, for Anglo homeowners (Model 4) it is household wealth that appears to affect destination choices, although modestly, with wealthier homeowners settling in more Anglo-dominated neighborhoods, while parental wealth has no significant effect. For both racial groups, then, the impact of parental wealth appears to be limited to renters.

More theoretically important are the differences in the effects of wealth between black and Anglo householders who share the same housing status. Here it is important to note that

only among renters are the black-Anglo differences in the effect of wealth on the composition of destination tracts statistically significant; and that household and parental wealth have larger positive impacts on access to whiter neighborhoods for black renters than for Anglo renters, but similar differences between black and Anglo homeowners are not statistically significant (again, partly reflecting the small number of black homeowners). Thus, the results in Table 5 suggest that the difference in the effects of wealth between blacks and Anglos is more pronounced among renters than among homeowners, and that these differences among renters drive much of the overall racial difference in the effects of wealth on access to Anglo neighborhoods revealed in Table 4.[12]

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[12] In supplemental analyses, we tested whether effects of household and parental wealth might be particularly strong among respondents who transitioned

Despite this complexity, the overarching implication of these findings is that both parental wealth and household wealth play a stronger role in determining the destinations of black householders than those of Anglo householders, although the magnitude of this difference differs slightly depending on home ownership. The implications of this racial difference in the effects of wealth are illustrated in Table 6, which presents predicted values of the percentage Anglo in the destination tract by levels of household and parental wealth, separately for black and Anglo renters (Panel A) and homeowners (Panel B). These predicted values are based on the results of regression Models 1 through 4 in Table 5 and hold constant all other explanatory variables at their race- and ownership-specific means.

The results in Table 6 show that among both renters and homeowners, Anglo householders move to tracts with substantially more Anglo representation than do black householders with the same level of wealth. For example, black renters with no household wealth are predicted to enter neighborhoods in which just over 30 percent of the population is Anglo, whereas Anglo renters with no wealth enter areas in which about 82 percent of the tract population is Anglo. Similar destination gaps exist between black and white renters with access to no parental wealth, and for homeowners with no household or parental wealth. For both renters and homeowners, the racial disparity in destination outcomes tends to decline slightly as wealth increases, reflecting the generally more pronounced impact of wealth on the mobility destinations of black versus Anglo householders.[13] Even at high levels of house-

hold and parental wealth, however, blacks enter tracts in which the Anglo percentage is about forty to fifty points lower than in those areas entered by Anglos of the same home-ownership status and with similar levels of wealth. In fact, even the wealthiest of mobile black households move to areas with substantially fewer Anglo neighbors than those entered by the least wealthy Anglos. For example, Anglo homeowners with no net household wealth are predicted to enter tracts in which about 82 percent of the population is Anglo compared to a tract composition of only 44.6 percent Anglo for black homeowners with almost $900,000 in household wealth (one standard deviation above the mean for homeowners).[14] This racial stratification holds for both renters and homeowners and for both parental and household wealth. These findings are consistent with a central tenet of the "weak version" of the place-stratification model: enhanced levels of financial capital are needed for African Americans to begin to attain spatial proximity with Anglos, but even the wealthiest blacks remain more segregated from Anglos than do the least wealthy non-Hispanic whites. Moreover, in contrast to the situation among blacks, high levels of wealth are not a prerequisite for Anglos to move into largely Anglo neighborhoods.[15]

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from renter to homeowner status during the migration interval. Only among Anglos do we observe a significant positive interaction between household wealth and transition to home ownership, suggesting that household wealth is most important in determining access to whiter neighborhoods as Anglo householders make the transition from renters to owners. We find no evidence that parental wealth has a stronger effect on destinations for either black or Anglo renters making the transition to ownership than for those remaining renters.

[13] The exception to this pattern is among homeowners where the negative but statistically non-significant effect of parental wealth among black

homeowners (see Table 5, Model 2) means that the racial gap in destination outcomes increases slightly as parental wealth increases.

[14] In fact, even at the maximum levels of household and parental wealth, the percentage Anglo in the destination tracts of black homeowners and renters fails to reach the predicted tract percentage Anglo for their non-Hispanic white counterparts with no household or parental wealth.

[15] Indeed, it is worth noting that, as shown in Models 5 and 6 of Table 4, all of the independent variables appear to exert a stronger effect on the percentage Anglo in the destination tract among blacks than among whites. The larger coefficient for the sample selection term (λ) among blacks than among whites may indicate that it takes a greater latent impetus for blacks than for whites to move at all in order to move to neighborhoods with larger percentages of Anglo residents.

Table 6.   Predicted Percentage Anglo in the Destination Tract by Levels of Household and Parental Wealth, Race, and Home Ownership: Panel Study of Income Dynamics, 1989–2001

	Black	Anglo	Black-Anglo Difference
Panel A: Renters			
Level of household wealth			
No household wealth	30.4	81.8	–51.4
Mean household wealth for renters	30.8	81.8	–51.0
One SD above mean household wealth for renters	34.2	81.9	–47.7
Level of parental wealth			
No parental wealth	30.1	81.7	–51.6
Mean parental wealth for renters	31.6	81.8	–50.2
One SD above mean parental wealth for renters	35.8	82.0	–46.2
Panel B: Homeowners			
Level of household wealth			
No household wealth	32.3	82.0	–49.7
Mean household wealth for homeowners	35.1	82.1	–47.0
One SD above mean household wealth for homeowners	44.6	82.8	–38.2
Level of parental wealth			
No parental wealth	33.3	82.2	–48.9
Mean parental wealth for homeowners	32.9	82.2	–49.3
One SD above mean parental wealth for homeowners	32.0	82.2	–50.2

Note: Calculations based on coefficients in Table 5 and race- and ownership-specific means for all variables except household or parental wealth. SD = standard deviation.

DISCUSSION AND CONCLUSION

High levels of residential segregation between blacks and non-Hispanic whites remain a defining feature of the American urban landscape, and the racial differences in inter-neighborhood migration that underlie and reinforce these patterns of segregation are pronounced. Although it has frequently been suggested that racial differences in wealth may account wholly or in part for the concentration of blacks and Anglos in neighborhoods dominated numerically by same-race residents (e.g., Clark 1986; Thernstrom and Thernstrom 1997), the limitations of prior studies have prohibited a compelling assessment of this claim. We address this issue here through a longitudinal analysis of black and non-Hispanic white households' migration propensities between neighborhoods containing varying representations of non-Hispanic whites (i.e., Anglos). At the broadest level, then, our study bridges the longstanding research traditions on racial residential segregation, spatial assimilation, and neighborhood attainment with a rapidly growing concern with wealth as a key dimension of social stratification—and of racial stratification in particular. Two main conclusions emerge from our analysis.

First, we find that among African Americans, and especially among those who rent their homes, greater household and parental wealth are associated with migration into neighborhoods that contain a comparatively large percentage of Anglo residents. These effects of wealth obtain even after controlling for conventional socioeconomic predictors of neighborhood attainment, such as education and income. While these effects are statistically significant, the magnitude of wealth's impact among blacks is generally modest; indeed, these effects are not even statistically significant among black homeowners. Furthermore, we find that greater wealth has even weaker and uneven net effects on the migration of non-Hispanic whites into neighborhoods inhabited by greater percentages of Anglos; parental wealth has a small effect on the destination neighborhood racial composition of Anglo renters, and household wealth has a similar effect among homeowners. In general, the effects of household and parental wealth on inter-neighborhood migration patterns are stronger for blacks than for Anglos, a finding consistent with what has been termed the "weak version" of the place-stratification model (Logan and Alba 1993).

Second, and perhaps more importantly, we find very little evidence that racial differences in the levels of household or parental wealth can explain the markedly lower rate of black than Anglo migration into neighborhoods with sizable Anglo populations. Controlling for racial differences in household and parental wealth reduces only negligibly the black-Anglo difference in these migration propensities, and even those blacks with the highest level of household and parental wealth tend to move into areas with substantially fewer Anglo residents than do even the least wealthy non-Hispanic whites. In short, while household and parental wealth do encourage the migration of black families into neighborhoods containing a comparatively large share of Anglo residents, racial differences in wealth cannot explain the pronounced difference between blacks and non-Hispanic whites in their residential proximity to Anglos. Racial differences in wealth can apparently account for black-Anglo differences in some markers of success and well-being (Conley 1999; Huie et al. 2003), but neighborhood attainment, at least as measured here, is not one of them.

Wealth, of course, is a difficult concept to measure. Survey respondents are likely to have particular difficulty estimating the net worth of their parents, making our finding of a significant (albeit modest) association between parental wealth and migration into neighborhoods comprising a relatively large percentage of Anglo residents all the more remarkable. Under most circumstances measurement error will bias downward the estimated parameter estimates, and so we cannot dismiss the possibility that the true effects of wealth—especially parental wealth—are larger than we report here. It seems unlikely, however, that measurement error could explain the inability of racial differences in wealth to account for racial differences in migration into "more Anglo" neighborhoods, since there is little reason to expect that the extent of measurement error in the estimates of household and parental wealth would vary by race. Nevertheless, confidence in our findings would be enhanced by their replication

through alternative datasets that offer different approaches to the measurement of wealth.[16]

Future research might also explore the effect of wealth on the spatial assimilation of other minority groups, particularly Latinos and Asians. Although our analysis suggests that black-Anglo differences in wealth cannot explain black-Anglo differences in the inter-neighborhood migration patterns that sustain segregation between these groups, wealth could play a larger role in explaining segregation between Latinos and Asians vis-à-vis Anglos. The greater levels of household wealth among Hispanics and Asians compared to blacks (Campbell and Kaufman 2000) could conceivably help to explain the former groups' lower levels of segregation from Anglos relative to blacks.

In light of these findings, efforts to explain racial residential segregation and the inter-neighborhood migration dynamics that sustain it would be advised to look beyond racial differences in socioeconomic resources, including wealth. Future research might profit by continued efforts to quantify the impact of housing market discrimination on black (and Anglo) geographic mobility into neighborhoods of varying racial and ethnic composition (e.g., South and Crowder 1998a), as well as to quantify the impact of race-specific residential preferences (Farley et al. 1994; Krysan and Farley 2002) and racial differences in the housing-search process (Farley 1996). Our results show clearly that the migratory responses of blacks and non-Hispanic whites to the racial composition of their neighborhoods are quite different, with blacks tending to move out of neighborhoods with large Anglo populations and Anglos tending to remain in such areas (see also Crowder 2000; Quillian 2002). Like the pronounced difference in the racial composition of the neighborhoods that blacks and Anglos move to, this differential response to the racial composition of the neighborhood of origin is not attributable to racial dif-

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[16] Although parental wealth was measured only in 1988, supplemental analyses using product terms for the interaction between year of observation and

parental wealth provide no indication that the measure becomes a weaker proxy for unobserved levels of parental wealth in later years. Similarly, because the PSID collects data on household wealth only every five years, we also examined whether the observed effect of household wealth varies by the number of years since its most recent measurement; we found no evidence that it does.

ferences in wealth or other socioeconomic resources. Given that black tolerance for white neighbors exceeds white tolerance for black neighbors (Farley et al. 1994), white avoidance of neighborhoods with substantial non-Anglo (especially black) populations deserves increased attention as an explanation for persistently high levels of racial residential segregation. Despite frequent claims to the contrary (e.g., Clark 1986; Thernstrom and Thernstrom 1997), the racial difference in wealth, while admittedly pronounced, appears incapable of explaining the disparate neighborhood locations of black and Anglo families.

The causes of, and remedies for, the disparate locational attainments of blacks and whites are interwoven with public policy decisions (Massey and Denton 1993; Squires and Kubrin 2005). Some recent initiatives have focused on improving the financial assets of the poor, and especially poor minorities (Edin 2001; Sherraden 2001), particularly through home ownership (Denton 2001). Although such a strategy may well serve to enhance the well-being of African Americans, our findings suggest that policies to equalize the distribution of wealth between blacks and whites are unlikely to reduce substantially levels of racial residential segregation. Rather, our results point to the need for policies that target white avoidance of black neighbors and the discriminatory barriers faced by blacks to entry into predominantly Anglo neighborhoods. Policies designed to reduce levels of racial residential segregation will also need to attend to the dynamic interplay between black in-migration and white out-migration from urban neighborhoods.

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