

## Neighborhoods in Transition to Adulthood

# Racial and Ethnic Differences in Neighborhood Attainments in the Transition to Adulthood

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This paper examines racial and ethnic differences in locational attainments in the transition to adulthood, using longitudinal data about neighborhoods of youth in the National Longitudinal Study of Adolescent Health. It examines place stratification and life course models of locational attainment during the 1990s, a period during which neighborhood poverty rates were declining for many groups. The analysis reveals durable inequalities in neighborhood poverty from adolescence to young adulthood, particularly for blacks and Hispanic origin subgroups. Family socioeconomic status and emerging educational attainments are associated with decreases in neighborhood poverty, with blacks receiving a stronger return from educational attainments than whites. Despite the benefits of education, racial and ethnic minorities remain more likely to live in considerably more disadvantaged neighborhoods in young adulthood than whites.

## Introduction

The consequences of living in disadvantaged neighborhoods have received great attention (Wilson 1996; Brooks-Gunn, Duncan and Aber 2000; Sampson, Morenoff and Gannon-Rowley 2002). An important subarea of this research has focused on neighborhood socioeconomic status as an outcome (i.e., “locational

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attainment”) in itself (e.g., Logan et al. 1996; South and Crowder 1997). Motivated by concerns over long-standing residential segregation by race and social class, much of this research has focused on racial and ethnic inequalities, with particular attention to the inability of blacks and other minority groups to escape high poverty neighborhoods.

Studies have consistently shown blacks, and to a lesser extent Hispanics, to be disadvantaged relative to whites, and that these inequalities are not accounted for by socioeconomic controls (e.g., South and Crowder 1997). However, a number of questions remain. One is whether black and Hispanic families get the same “locational returns” from socioeconomic resources as do their white counterparts. In other words, do educational and other resources confer the same benefits of access to advantaged neighborhoods? Research into the intergenerational transmission of neighborhood contexts (Sampson and Sharkey 2008; Sharkey 2008) raises further questions about the role of parental socioeconomic status relative to a youth’s own emerging socioeconomic resources in shaping neighborhood attainments in young adulthood.

This study addresses these questions using longitudinal data about the neighborhoods of respondents within the National Longitudinal Study of Adolescent Health. As such, it is among the first to examine racial and ethnic differences in neighborhood attainments during emerging adulthood in the late 1990s, a period of relative economic prosperity. It is also unique in comparing the experiences of whites, blacks, Asians and Hispanic subgroups, including Mexicans, Cubans and Puerto Ricans.

## Background

### *Spatial Assimilation and Place Stratification Models*

Spatial assimilation theory considers locational attainments as part of a larger status attainment process for immigrant groups in the United States (Massey 1985). In short, as a group makes gains in socioeconomic status it is expected to be able to convert those resources into better neighborhood attainments, such as residential contact with whites, suburbanization and migration out of poor neighborhoods (Alba et al. 1999; Crowder and South 2005; Logan and Alba 1993; Massey 1985; South, Crowder and Chavez 2005; South, Crowder and Pais 2008).

The continuing disadvantage of blacks, and to a lesser extent Hispanics, is the focus of the place stratification model, which problematizes the notion that spatial assimilations automatically follow from socioeconomic advances (Logan and Molotch 1987; Logan and Alba 1993). According to the theory, long-standing racial segregation and ongoing discrimination limit the socioeconomic and geographic mobility of minority groups, particularly blacks (e.g., Massey and Denton 1993). Empirically, the place stratification model predicts that racial and ethnic inequalities in locational attainment will persist, even after controlling for socioeconomic status, life course characteristics, and other factors (South and Crowder 1997; Adelman et al. 2001).

Place stratification theory further contends that the relationship between socioeconomic resources and locational attainment will vary by race and ethnicity.

A “strong” version (Logan and Alba 1993; South and Crowder 1998) hypothesizes that disadvantaged racial and ethnic groups will be unable to convert socioeconomic resources into better locational attainments. Because of discriminatory practices by lenders, realtors and homeowners, and racial stereotypes, the barrier of access to good neighborhoods is more rigid for blacks than it is for whites (Squires 1999; Yinger 1995). For example, Pattillo-McCoy (1999) argues that middle-class blacks are unable to convert their socioeconomic resources into locational gains, tending to live in closer proximity to poor blacks with whom they often share inadequate public resources.

A “weak” version, in contrast, predicts that some minorities will be able to convert socioeconomic resources into locational attainments, but that their gains are only in comparison to other minority group members. Despite within-group gains, the weak version predicts that even the most advantaged minorities will not achieve the locational attainments of the majority group (Adelman et al. 2001; South, Crowder and Chavez 2005). In terms of an empirical prediction, the weak version posits that education and income will have a stronger effect on locational outcomes for minorities than for whites; yet it is only a very small and advantaged group of minorities that will experience this benefit, whereas nearly all majority group members will be able to avoid the poorest residential areas (Logan and Alba 1993; South, Crowder, and Chavez 2005). From a discrimination perspective, the weak version may be somewhat counter-intuitive, as it might seem that minority groups are getting more of a locational benefit from socioeconomic resources than whites. To the contrary, the logic of the weak version is that the majority group is so advantaged by their majority status and greater socioeconomic resources that virtually none of them live in the most disadvantaged neighborhoods; thus socioeconomic resources are less predictive of neighborhood attainments.

The empirical literature reveals mixed support for the strong and weak versions of place stratification. Logan and Alba (1993) found that measures of human capital were less strongly related to suburban residence among blacks than they were for whites, Hispanics or Asians, which supports the strong version. Similarly, Crowder (2001) found that black respondents were less able than whites to translate mobility expectations into actual moves. Interestingly, blacks were more likely to move if they did not expect to, suggesting their moves were involuntary. South and Deane (1993) also found blacks less mobile when dissatisfied with their neighborhoods. Woldoff and Ovadia (2008) found that blacks received a lower return to wealth and educational attainments than did whites.

Other research has supported the weak version. For example, South and Crowder (1997) found that although blacks were less likely to exit poor neighborhoods and more likely to enter them, educational attainment had a stronger association with transitions from poor to nonpoor neighborhoods among blacks compared with whites (see also Crowder and South 2005). Using data from the 1970 and 1980 PUMs, Adelman and colleagues found that socioeconomic resources were more predictive of locational outcomes for blacks than other groups, but that even the most advantaged blacks did not attain

the neighborhood quality of low socioeconomic status whites (Adelman et al. 2001). Using more recent data for the period 1990 to 1995, South, Crowder and Chavez (2005) found that family income was more negatively associated with entering poor neighborhoods for blacks and Mexicans compared with whites.

### ***Locational Attainment in Life Course Perspective***

An important recent development is the incorporation of a life course perspective, which focuses attention on temporal issues such as the timing and duration of neighborhood experiences, and the degree of stability or change in neighborhood attainments across generations. Most studies indicate considerable stability of neighborhood disadvantage over time, particularly within neighborhoods that are racially stratified. For example, Sampson and colleagues documented “durable inequality” in poverty at the neighborhood level between 1970 and 1990 (Sampson and Morenoff 2006) and between 1980 and 2000 (Sampson and Sharkey 2008). Stability of neighborhood disadvantage is also observed at the household and individual level. Quillian (2003) found that 60 percent of black households, compared with just 10 percent of whites, lived in poor neighborhoods for spells of 10 years. Timberlake estimated that an average black child will spend roughly 50 percent of their childhood in poor neighborhoods, compared with about 40 percent for Hispanic youth and only 5 percent for white youth (Timberlake 2007b). Research by Sharkey (2008) has also examined the degree of intergenerational transmission of neighborhood poverty, finding that nearly three quarters of black children who grew up in the poorest neighborhoods remained in poor neighborhoods in adulthood, compared with only 40 percent of whites.

Not yet adequately examined are experiences during the critical transition to adulthood, a period marked by multiple and interlocking educational, career and relationship transitions, most of which are likely consequential for locational attainments (Settersten, Furstenberg and Rumbaut 2005; Shanahan 2001). An important exception is the recent work of Sharkey (2012), who examined trajectories of neighborhood change in the transition to adulthood, for whites, blacks and Latinos, using data from the Project on Human Development in Chicago Neighborhoods (PHDCN) and the Panel Study of Income Dynamics (PSID). Focusing on residential transitions, Sharkey found that among those moving away from highly segregated metropolitan areas, racial inequalities declined somewhat in the early 20s. However, inequalities tended to re-emerge as respondents moved further into adulthood. Among those staying in Chicago and other highly segregated metropolitan areas, little change in neighborhood inequality was observed.

Little is known about the role of other transitions in early adulthood for locational attainment, such as the pursuit of higher education, marriage, childrearing, and employment. A frequent observation is that the transition to adulthood has become increasingly individualized, heterogeneous and protracted (Arnett 2000; Furstenberg, Rumbaut and Settersten 2005; Fussell and Furstenberg 2005; Shanahan 2001). Reflecting this heterogeneity, life course researchers have identified several distinct social pathways, stratified by race, ethnicity and gender

(Fussell and Furstenberg 2005; MacMillan and Copher 2005), that set youth on life-long trajectories of achievement and well-being (Mouw 2005). One such pathway, referred to as fast starters, captures those making a nearly full transition to adulthood at early ages, including childrearing and little higher education (Osgood et al. 2005; Hagan and Foster 2001, 2003). At the opposite end are those delaying the full transition to adulthood as they pursue postsecondary education. Also critical to consider is co-residence with parents, a major source of material support in the transition to adulthood. Though ages of leaving home have fluctuated over time, the likelihood of returning home has increased, resulting in high rates of co-residence with parents (Goldscheider 1997; Goldscheider et al. 1999). There are also considerable differences in co-residence with parents by race, ethnicity and immigrant generational status (Glick and Van Hook 2002).

### ***Summary of the Current Study***

The present study integrates insights from the locational attainment and life course perspectives to examine inequalities in locational attainment in early adulthood, with a focus on neighborhood poverty and inequalities across racial and ethnic groups. Building upon spatial assimilation and place stratification research, we hypothesize that family-of-origin socioeconomic resources and one's own emerging socioeconomic attainments will be associated negatively with neighborhood poverty, but that inequalities between racial and ethnic groups will remain after these resources are controlled. Recognizing that persons of Hispanic origin represent a diverse set of subgroups (South, Crowder and Chavez 2005; Timberlake 2007a) this study also examines differences across Mexican, Cuban, Puerto Rican and other Hispanic subgroups. It also considers those of Asian descent.

The study also considers group differences in the degree to which parents' neighborhood attainments are associated with one's own neighborhood attainment in early adulthood. Consistent with research on the durability of neighborhood poverty, we hypothesize that neighborhood poverty in adolescence will have a stronger association with neighborhood poverty in young adulthood for blacks and Hispanics.

Recognizing the heterogeneity of social pathways in the transition to adulthood, analyses are stratified by co-residence with parents and age group (i.e., younger than 23, versus 23 and older). For younger adults still living with their parents, it is unlikely that their current life course statuses or socioeconomic attainments will have an appreciable influence on neighborhood poverty, above and beyond parental resources. Thus, we expect associations between respondents' educational, employment and family transitions to be strongest for older respondents living on their own. We also hypothesize that marriage, childrearing and full-time employment will be most beneficial at older ages. As noted previously in the literature on "fast starters," making transitions to childrearing and other major life-course transitions at early ages may represent premature exits to adulthood that follow from, or portend, disadvantage.

## Methods

### *Data*

This project uses data from Waves I and III of the National Longitudinal Study of Adolescent Health, a nationally representative sample of 7th to 12th graders in the United States in 1995 (Bearman, Jones and Udry 1997). The sampling frame included 80 high schools and feeder middle schools, stratified by region, urbanicity, sector, race and size. From school rosters, 20,745 adolescents completed in-home interviews at Wave I. One year later, 88.2 percent of these completed Wave II interviews. Wave I 12<sup>th</sup> graders graduating between waves were not interviewed at Wave II, but were contacted for follow-up at Wave III. At Wave III, conducted in 2001-2002, 15,197 (or 73.3%) of the original respondents were re-interviewed.

The analysis is limited to participants at Waves I and III with valid sample weights who were living in urban areas at Wave I. There is little missing data (< 1% of cases) for many of the key study variables. However, there is considerable missing data on family income in adolescence (21.7%). SAS PROC MI is used to multiply impute missing values for all variables. PROC MI Analyze combines the results across five imputations.

Many studies of locational attainment have utilized the Panel Study of Income Dynamics and its longitudinal neighborhood database. The Add Health sample is better suited for our purposes because it allows examination of intergenerational patterns of locational attainment across racial and ethnic groups, including Hispanic subgroups. Studies using the PSID to examine intergenerational patterns of locational mobility are limited by relatively small numbers of Hispanics in the original sampling design started in 1968. Add Health was designed to be nationally representative in 1995 and includes oversamples of Puerto Rican, Chinese and Cuban subgroups. The more recent oversamples of immigrant families in the 1990-1995 PSID would allow similar subgroup comparisons, but not an intergenerational analysis.

### ***Longitudinal Contextual Database and Neighborhood Measures***

Following convention within the locational attainment literature, we define neighborhoods as respondents' census tracts at each wave. Neighborhood characteristics are provided by the Add Health Wave I (Billy, Wenzlow and William Grady 1997) and Wave III (Swisher 2009) contextual databases, which include linked data from the 1990 and 2000 decennial Censuses, respectively. Missing geographical identifiers are fairly negligible at Waves I (123 cases) and III (308 cases), and are not imputed.

*Neighborhood poverty* is measured as the percentage of families below the federal poverty line. This measure is consistent with most studies within the locational attainment and neighborhood literatures. In supplemental analyses, each set of models were re-run using alternative measurement approaches, including: a scale of low neighborhood socioeconomic status (i.e., families below poverty, adult males unemployed and households receiving public assistance) and

dichotomous indicators of living in a poor neighborhood (alternatively defined as more than 20% or 30% of families below poverty). These approaches yielded similar patterns of results to those presented below. Neighborhood racial, ethnic and immigrant composition are measured by percentages of the population that are black, Hispanic and foreign born at Wave I. These are used to differentiate the effects of race and ethnicity at the individual level, from their potential compositional effects at the neighborhood level.

### ***Individual, Family and Emerging Adulthood Measures***

*Race and ethnicity* is based on self-reports of race and Hispanic origin, yielding mutually exclusive categories of non-Hispanic white ( $n = 4301$ ), non-Hispanic black ( $n = 2106$ ), non-Hispanic Asian ( $n = 888$ ) and those of Hispanic origin. Hispanic origin is further disaggregated into subgroups of Mexican ( $n = 1346$ ; including Chicanos), Puerto Rican ( $n = 364$ ), Cuban ( $n = 362$ ) and other Hispanics ( $n = 363$ ). Native Americans or persons of other races are not included because of their very small numbers. An indicator variable *foreign-born* (8.5%) denotes respondents born outside the United States. The decision to treat nativity independently of race and ethnicity (i.e., as opposed to using categories such as foreign-born white and foreign-born black) was based on exploratory analyses showing the association between foreign born and locational attainment to be largely the same for all racial and ethnic groups.

*Gender* is coded dichotomously, with females as 1 and males 0. *Household structure* is denoted by an indicator of whether respondents lived with both biological parents at Wave I (1 = yes, 0 = other family type). *Parents' education* is based on parent reports of their highest degree completed, with the higher used when more than one parent is present. Categories ranging from "never went to school" to "professional training beyond a 4-year college" are then converted into years of education. *Family income* is based on parent reports of total family income at Wave I. Family income is reported in 1,000s and log-transformed to reduce skewness.

A variety of measures capture the diversity of respondents' life course situations at Wave III, who were between 18 and 26 years of age (mean of 21.8 years). Because of this wide range of ages, all multivariate analyses are stratified by age (younger than 23 years of age and 23 years of age or older).<sup>1</sup> As many respondents in the younger subgroup have not yet completed their educations, their *educational attainments* are measured by three indicators: no high school completion (12.6%), high school or GED completed but never enrolled in postsecondary education (43.3%) and any enrollment in postsecondary education (44.1%), including technical schools, community and 2-year colleges, 4-year institutions and graduate or professional schools. Among respondents 23 years of age or older, an additional indicator for having completed a 4-year college degree (or more education) is used. To distinguish education completed from current enrollment, indicators for enrolled *in school full-time* (26.1%) and *part-time* (9.2%) are also used. Current work status is measured as the number of *work hours* per week (mean of 25.4 hours). Family formation is indicated by the variables:



*married* (17.2%), *cohabiting* (13.3%) and having a *resident child* (21.0%). The number of *residential moves* between Wave I and III is used (mean of 2.08) to measure the frequency of residential mobility.<sup>2</sup> *Income* at Wave III is based on respondent reports of either total personal income, or total household income for youth living with parents, and for those who are married or cohabiting. *Public assistance* at Wave III is an indicator representing respondents who answered yes to receiving AFDC, public assistance, welfare or foodstamps in the past year.

Descriptive statistics are presented for each racial and ethnic group in Table 1. Though making mean comparisons is not a primary focus, several differences are noteworthy and provide a backdrop for the multivariate findings to follow. In terms of neighborhood inequalities in adolescence, black youth are the most

**Table 1. Means, Percents and Proportions for Key Study Variables by Race and Ethnic Subgroups**

Variables	Non-Hispanic Origin				Puerto Rican	Cuban	Other Hispanic
	White	Black	Asian	Mexican			
Neighborhood poverty at Wave III	8.34	18.72	9.71	14.85	13.11	15.48	15.34
Neighborhood poverty at Wave I	8.22	20.77	9.51	15.48	14.41	18.05	15.76
Two biological parents	.57	.26	.74	.59	.43	.59	.49
Family income (1000s logged)	3.75	3.12	3.67	3.19	3.41	3.05	3.15
Parents' education	14.52	13.27	14.38	10.62	13.08	12.71	12.69
Completed high school only	.41	.52	.30	.49	.54	.33	.42
Any higher education	.50	.30	.66	.32	.36	.61	.35
In school full-time	.28	.20	.40	.16	.22	.37	.22
In school part-time	.09	.07	.11	.12	.10	.16	.08
Work hours	26.48	21.50	21.52	28.07	25.08	25.38	25.80
Married	.17	.11	.16	.27	.15	.18	.19
Cohabiting	.14	.11	.07	.15	.13	.08	.17
Resident child	.19	.28	.13	.30	.22	.17	.26
Lives with parents	.39	.44	.52	.45	.56	.59	.52
Income, Wave III (1000s logged)	3.06	2.64	3.15	3.09	3.11	2.23	2.82
Public assistance receipt, Wave III	.06	.17	.03	.06	.09	.08	.07
N	4301	2106	888	1346	364	362	363

**Note:** Descriptive statistics based on Add Health longitudinal project weights.



disadvantaged with an average neighborhood poverty rate of 20.8 percent at Wave I, compared with rates between 14.4 percent (Puerto Ricans) and 18.1 percent (Cubans) for Hispanic subgroups and only 8.2 percent for whites. With a neighborhood poverty rate of 9.5 percent, Asians were most similar to whites. The same pattern of inequalities is observed for neighborhood poverty at Wave III. In terms of resources that might facilitate reductions in poverty in young adulthood, white and Asian youth appear to be most advantaged, with higher levels of parental education and pursuit of postsecondary education. White respondents are least likely to live with parents. Of Hispanic subgroups, Cubans seem best poised to improve their neighborhoods, as they start out in the most impoverished neighborhoods (18.1%), but pursue higher education at a high rate (61%).

### ***Hierarchical Linear Models***

Because of the clustering of respondents within neighborhoods at Wave I, we use hierarchical linear models (Raudenbush and Bryk 2002). In our analytic sample there are 9604 persons nested within 1573 neighborhoods at Wave I (6.1 persons per tract). The degree of clustering within neighborhoods at Wave III is diminished considerably by residential mobility. In the models to follow, neighborhood poverty, percent black, percent Hispanic and percent foreign-born at Wave I are neighborhood-level variables.<sup>3</sup> All other variables are individual-level covariates that predict individual differences in neighborhood poverty at Wave III.

In supplemental analyses we examine trajectories of neighborhood poverty using two-level growth curve models, with multiple observations of neighborhood poverty at Waves I, II and III (level 1) nested within individuals (level 2). Neighborhood poverty at Wave II is based on the same 1990 Census data as is the Wave I measure. Change between Waves I and II is thus due to moves (4.1% moved). At level 1, within-person variation in neighborhood poverty across time is modeled as a function of time, coded as 0, 1 and 6 to reflect the lag in years between waves. Following the notation of Singer and Willett (2003), the model is as follows:

$$Y_{ij} = \pi_{0i} + \pi_{1i} \text{TIME}_{ij} + \varepsilon_{ij}$$

At level 2, the intercept and slope from the level 1 model are allowed to vary randomly across persons and modeled as functions of individual characteristics. In baseline trajectories of neighborhood poverty across race and ethnic groups, the models are

$$\pi_{0i} = \gamma_{00} + \gamma_{01} \text{BLACK}_i + \gamma_{02} \text{HISPANIC}_i + \zeta_{0i}$$

$$\pi_{1i} = \gamma_{10} + \gamma_{11} \text{BLACK}_i + \gamma_{12} \text{HISPANIC}_i + \zeta_{1i}$$

with  $\gamma_{00}$  representing the average neighborhood poverty at Wave I (i.e., where TIME is 0) for a white respondent. The coefficients  $\gamma_{01}$  and  $\gamma_{02}$  represent the average differences in initial neighborhood poverty between blacks and whites

and Hispanics and whites, respectively. The coefficient  $\gamma_{10}$  represents the average rate of change in neighborhood poverty for white respondents, whereas  $\gamma_{11}$  and  $\gamma_{12}$  represent differences from whites in the rates of change in neighborhood poverty for black and Hispanic respondents, respectively. These models can be extended to include interactions representing differences across groups in the association between resource variables and rates of change in neighborhood poverty. All hierarchical models are estimated using SAS PROC MIXED.

## Results

### *Neighborhood Poverty in Young Adulthood*

Analyses are stratified by age and co-residence with a parent at Wave III. Table 2A presents the results for respondents younger than 23 years of age. Table 2B presents results for those 23 years of age or older (hereafter referred to as “younger” and “older” respondents). Within each table, models for respondents living with a parent are presented on the left-hand side, with models for persons living independently of parents on the right.

Model 1 for each subgroup estimates baseline differences across race, ethnicity and foreign-born status in levels of neighborhood poverty in young adulthood. These initial models control only for age and gender and whether respondents were living with both biological parents at Wave I. Coefficients for these controls are not presented as they are neither a focus nor statistically significant. Looking across the initial models, and compared with the excluded category of white respondents, nearly all racial and ethnic groups are disadvantaged with respect to neighborhood poverty in early adulthood. Among black respondents, disadvantage is greatest for those not living with their parents. Compared with whites, black respondents not living with their parents live in neighborhoods with poverty rates 7.41 and 7.31 percentage points higher (among the younger and older groups, respectively). Among the Hispanic subgroups, Mexican and Other Hispanic respondents are most consistently disadvantaged relative to whites. As with blacks, disadvantage is greatest for those not living with parents. For example, Mexican respondents not living with parents have neighborhood poverty rates that are 3.92 (younger group) and 4.87 (older group) percentage points higher than whites. Cuban and Puerto Rican respondents are also observed to be disadvantaged compared with whites, though not all coefficients are statistically significant. Foreign-born status is not significantly associated with neighborhood disadvantage, controlling for race and ethnicity. Among Asians, only younger respondents living independently of parents are observed to live in poorer neighborhoods ( $b = 2.317$ ,  $p < 0.05$ ) than whites.

The second set of models assesses whether differences in neighborhood poverty in young adulthood are attributable to family socioeconomic status, neighborhood poverty in adolescence and neighborhood racial, ethnic and immigrant composition. Inclusion of these measures attenuates the magnitude of racial and ethnic inequalities to varying degrees across groups, but most strongly for

**Table 2A. Multilevel Linear Regression Models of Neighborhood Poverty at Wave III: Younger Than 23 Years of Age**

	Living with Parents (n = 2584)			Not Living with Parents (n = 2706)		
	(1)	(2)	(3)	(1)	(2)	(3)
<i>Background Variables</i>						
Black	4.349*** (.454)	2.371*** (.461)	2.197*** (.462)	7.406*** (.585)	4.652*** (.719)	4.191*** (.723)
Mexican	2.228*** (.492)	.671 (.481)	.065 (.479)	3.921*** (.741)	2.142*** (.791)	2.276** (.791)
Cuban	2.030* (1.017)	-1.329 (.979)	-1.271 (.974)	2.759 (1.536)	-.585 (1.734)	-1.064 (1.729)
Puerto Rican	1.607* (.670)	.996 (.615)	.922 (.612)	1.723 (1.196)	.515 (1.185)	.657 (1.180)
Other Hispanic	3.061*** (.760)	1.326 (.711)	1.196 (.708)	4.178** (1.382)	2.807* (1.374)	2.743* (1.370)
Asian	.711 (.597)	.745 (.557)	.606 (.556)	2.317* (.976)	2.067* (.989)	1.910* (.987)
Foreign born	.393 (.495)	-.379 (.475)	-.182 (.474)	-.070 (.884)	-.759 (.875)	-.791 (.874)
Parents' education		-.218*** (.048)	-.185*** (.049)		.002 (.080)	-.027 (.083)
Family income		-.712*** (.199)	-.621** (.202)		-.774* (.309)	-.771* (.315)
<i>Neighborhood Characteristics (WI)</i>						
Neighborhood % in poverty		.488*** (.022)	.487*** (.021)		.194*** (.027)	.188*** (.027)
Neighborhood % Black		.021* (.009)	.018* (.009)		.020 (.013)	.022 (.013)
Neighborhood % Hispanic		.025 (.017)	.024 (.017)		.046 (.024)	.055* (.024)
Neighborhood % foreign born		.030 (.022)	.029 (.022)		-.009 (.031)	-.009 (.031)
<i>Emerging Adult Statuses</i>						
Completed high school			-.535 (.448)			.326 (.710)
Some higher education			-1.398* (.596)			-.289 (1.009)

*Continued*

**Table 2A. continued**

	Living with Parents (n = 2584)			Not Living with Parents (n = 2706)		
	(1)	(2)	(3)	(1)	(2)	(3)
Household income			-.248** (.094)			-.319 (.216)
Public assistance			1.909** (.714)			3.049*** (.764)
Married			-.108 (.672)			-.723 (.620)
Cohabiting			.062 (.642)			-1.065 (.564)
Resident child			-.310 (.497)			.617 (.483)
Moves since Wave I			-.441*** (.095)			.086 (.107)

\*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$   $p < .10$

**Notes:** Regression coefficients with standard errors in parentheses. All models control for age, gender and family structure at Wave I. Models 3 and 6 control also control for school enrollment and work hours at Wave III.

those living with parents. As expected, parents' education and income are significantly associated with neighborhood attainment, but only for the younger respondents.

Neighborhood poverty in adolescence, which can be thought of as a stability coefficient, is statistically significant across all models. It should also be noted that as in any lagged dependent variable model, inclusion of this stability coefficient shifts the interpretation of other coefficients to predicting change in neighborhood poverty between adolescence and young adulthood. Not surprisingly, stability of neighborhood poverty is strongest for those living with parents. For example, among younger respondents living with parents, a one percentage point change in neighborhood poverty in adolescence is associated with a 0.49 percentage point increase in neighborhood poverty in young adulthood. At the same time, the fact that these coefficients are not 1.00 suggests considerable change in neighborhood poverty between adolescence and young adulthood even among those living with their parents. This change may be because of either changes in the neighborhood itself (i.e., for the nonmobile) or parents moving between neighborhoods of varying poverty levels. The role of moves is assessed in the next set of models. It is perhaps more noteworthy that neighborhood poverty in adolescence remains a significant predictor of future neighborhood poverty among those not living with parents. Later, we assess whether this "stickiness" of neighborhood poverty varies across groups.

**Table 2B. Multilevel Linear Regression Models of Neighborhood Poverty at Wave III: 23 Years of Age and Older**

	Living with Parents (n = 1613)			Not Living with Parents (n = 2827)		
	(1)	(2)	(3)	(1)	(2)	(3)
<i>Background Variables</i>						
Black	4.574*** (.629)	1.515* (.616)	1.506*** (.625)	7.309*** (.577)	4.800*** (.677)	4.237*** (.675)
Mexican	2.059*** (.610)	1.023 + (.592)	.981 + (.594)	4.872*** (.628)	3.370*** (.684)	3.604*** (.675)
Cuban	4.349*** (1.226)	-.924 (1.165)	-.704 (1.169)	3.557** (1.256)	-.951 (1.459)	-.454 (1.431)
Puerto Rican	2.903** (.951)	1.004 (.853)	1.045 (.857)	2.283 + (1.166)	.797 (1.141)	.836 (1.120)
Other Hispanic	3.038*** (.887)	1.085 (.833)	1.033 (.838)	5.460*** (1.020)	3.343** (1.036)	3.545*** (1.019)
Asian	.766 (.664)	.304 (.614)	.543 (.623)	.538 (.793)	-.160 (.791)	-.074 (.779)
Foreign born	.576 (.487)	-.229 (.465)	-.265 (.471)	.887 (.619)	.154 (.618)	.632 (.608)
Parents' education		.009 (.060)	.023 (.061)		-.005 (.069)	.049 (.071)
Family income		-.319 (.284)	-.281 (.293)		-.466 (.265)	-.093 (.269)
<i>Neighborhood Characteristics (WI)</i>						
Neighborhood % in poverty		.554*** (.030)	.546*** (.030)		.232*** (.027)	.213*** (.026)
Neighborhood % Black		.043*** (.012)	.044*** (.012)		.023 + (.012)	.026* (.012)
Neighborhood % Hispanic		.011 (.021)	.015 (.021)		-.002 (.024)	.007 (.023)
Neighborhood % foreign born		.059* (.024)	.055* (.024)		.067* (.031)	.059 + (.030)
<i>Emerging Adult Statuses</i>						
Completed high school			-1.065 + (.585)			-1.979** (.647)
Some higher Education			-1.382 + (.734)			-3.315*** (.857)

*Continued*

**Table 2B. continued**

	Living with Parents (n = 1613)			Not Living with Parents (n = 2827)		
	(1)	(2)	(3)	(1)	(2)	(3)
Completed 4-year college			-1.641* (.715)			-3.503*** (.814)
Household income			-.092 (.129)			-.400* (.166)
Public assistance			.746 (.754)			4.463*** (.710)
Married			-.205 (.560)			-1.548*** (.453)
Cohabiting			-1.152 (.751)			-.403 (.498)
Resident child			.072 (.505)			.726 (.446)
Moves since Wave I			.057 (.106)			.117 (.082)

\*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$  +  $p < .10$

**Notes:** Regression coefficients with standard errors in parentheses. Models control for age, gender and Wave I family structure.

Neighborhood racial, ethnic and immigrant compositional measures are observed to predict changes in neighborhood poverty, most consistently for the older respondents (Table 2B). For example, a 1-point increase in the percentage of neighborhood residents who are black is associated with a 0.04 percentage point increase in neighborhood poverty (i.e., among those living with parents). Living in neighborhoods in adolescence with more foreign-born residents is also associated with higher neighborhood poverty in young adulthood. Percent Hispanic is not significantly associated with changes in neighborhood poverty for any subgroup.

The life course perspective recognizes that transitions and attainments associated with education, work and family should further stratify neighborhood attainments in young adulthood. They represent potential sources of turning points or redirections of neighborhood experiences. The third set of models thus introduces indicators for respondents' emerging life course characteristics. A cursory scan across the groups suggests that our hypothesis, of greatest relevance of adult statuses for older respondents not living with their parents, is largely borne out. We thus focus our interpretive attention on this group. Among these older respondents, socioeconomic attainments such as completing high school, pursuing postsecondary education and income are all associated with

lower neighborhood poverty, controlling for prior neighborhood poverty and other factors. For example, compared with those not completing high school, those pursuing some post-secondary education (i.e., but not completing a 4-year degree), experience a 3.32 percentage point decrease in neighborhood poverty. Those completing a 4-year degree experience a similar 3.50 percentage point decrease in neighborhood poverty.

Of family transitions, only marriage is associated with a decrease in neighborhood poverty, but again only among older respondents not living with parents. Neither cohabiting nor having a resident child is associated with changes in neighborhood poverty. The lack of significance for cohabitation is perhaps not surprising, given that this model controls for household income, a financial benefit accruing from pooled resources. However, in an additional model (not shown), dropping household income and public assistance receipt does not bring cohabitation into statistical significance. Controlling for these emerging adulthood transitions and resources, young adults living independently of their parents who are black, Mexican or of other Hispanic origins (and Asian in the younger subgroup) remain disadvantaged compared with whites with respect to neighborhood attainments. Thus, these models provide additional support for the basic place stratification hypothesis.

### ***Interactions between Race and Ethnicity and Adolescent Resources***

Place stratification theory further predicts that racial and ethnic groups will receive different locational benefits to their socioeconomic and other resources. This is assessed by introducing interactions of black and Hispanic with family socioeconomic resources. Because of the relatively small sizes of some Hispanic subgroups, these categories are collapsed into the broader Hispanic origin designation. Models were run for all four of the subgroups (i.e., stratified by both age and living with parents), but are presented only for respondents not living with parents, for whom we hypothesized varying returns to socioeconomic resources. None of the interactions were found to be significant for respondents living with parents (results available upon request).

Results from the interaction-term models for those not living with parents are presented in Tables 3A (younger respondents) and 3B (older respondents). In addition to the interaction terms, each model includes the noninteracted coefficients associated with each racial and ethnic group and control variables from previous models. To minimize potential collinearity associated with interactions, one interaction is considered at a time. As the pattern of results is similar across the two age groups, they are interpreted together, with a few differences noted.

Model 4 for each age group includes interactions between black and Hispanic and family income at Wave I. For both age groups, the main noninteracted coefficients are nonsignificant, indicating no residual associations of family income in adolescence with changes in neighborhood poverty in early adulthood for the excluded group of white respondents. The statistical significance and negative signs of the interaction terms, however, indicate that black



**Table 3A. Multilevel Models of Wave III Neighborhood Poverty: Younger Than 23 Years of Age and Not Living with Parents**

	(4)	(5)	(6)	(7)	(8)
<i>Noninteracted Coefficients</i>					
Black	4.349*** (.723)	4.745*** (.732)	4.340*** (.721)	4.448*** (.723)	4.127*** (.803)
Hispanic	1.943** (.672)	1.820** (.678)	2.109** (.672)	1.628*** (.678)	1.858** (.680)
Asian	2.079* (.982)	2.191* (.980)	2.057* (.998)	1.962* (.978)	2.057* (.981)
Family income (Wave I)	-.046 (.397)	-.738* (.314)	-.809* (.315)	-.773* (.313)	-.779* (.315)
Parents' education	-.045 (.082)	.193 (.103)	-.054 (.083)	-.055 (.083)	-.038 (.083)
Neighborhood poverty (Wave I)	.181*** (.027)	.182*** (.026)	.076* (.037)	.188*** (.027)	.187*** (.027)
High school graduate	.270 (.711)	.325 (.708)	.166 (.709)	1.983* (.986)	.328 (.712)
Some college	-.426 (1.008)	-.375 (1.006)	-.403 (1.001)	2.165+ (1.199)	-.292 (1.010)
Own income (Wave III)	-.303 (.217)	-.305 (.216)	-.306 (.216)	-.304 (.215)	-.264 (.293)

Interaction Terms	Subgroups Interacted with:					
	Family Income (WI)	Parents' Education	Neighborhood Poverty (WI)	High School Graduate	Some College	Own Income (WIII)
Black * resource	-1.844** (.598)	-.632*** (.185)	.181*** (.045)	-.995 (1.778)	-3.971** (1.762)	-.251 (.478)
Hispanic * resource	-1.218 + (.654)	-.447** (.165)	.178** (.060)	-4.688* (1.572)	-6.234*** (1.634)	-.240 (.492)

\*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$  +  $p < .10$

**Notes:** Regression coefficients with standard errors in parentheses. N is 2706. Models control for all variables in Model 3 of Table 2A.

and Hispanic respondents receive a residual benefit (i.e., lower neighborhood poverty) from family income in adolescence, controlling for other factors. This stronger association among minorities is consistent with the weak version of the place stratification model.

A similar overall pattern is observed in Model 5, which includes interactions with parental education. To aid interpretation, this relationship is graphed in Figure 1. This graph shows that as parents' education increases for blacks and Hispanics, their neighborhood poverty rates decline. Among white respondents, in contrast, higher parental education is associated with an increase in neighborhood poverty. This likely reflects a regression to the mean among whites, whose parents tend to live in more advantaged circumstances. Also note that the most advantaged black and Hispanic respondents still do not achieve the neighborhood attainments of the most disadvantaged whites, a pattern providing further evidence of a "weak" place stratification effect (Logan and Alba 1993). Inequalities are smaller at higher levels of parental education, but whites still fare better at all levels of education than do blacks or Hispanics.

Model 6 assesses variations in the stability of neighborhood poverty from adolescence into young adulthood, by including interactions of black and Hispanic and neighborhood poverty at Wave I. For both age groups, the main effect of neighborhood poverty remains statistically significant, indicating that neighborhood stratification is durable for all racial and ethnic groups. Among those 23 years of age and older, a one percentage point increase in neighborhood poverty at Wave I is associated with a 0.13 percentage point increase in neighborhood poverty in young adulthood. The statistically significant interaction terms indicate that neighborhood poverty in adolescence is particularly limiting to the

**Table 3B. Multilevel Models of Wave III Neighborhood Poverty: 23 Years of Age or Older and Not Living With Parents**

	(4)	(5)	(6)	(7)	(8)
<i>Noninteracted Coefficients</i>					
Black	4.385*** (.678)	4.568*** (.679)	4.503*** (.676)	4.231*** (.681)	4.215*** (.677)
Hispanic	3.099*** (.608)	2.818*** (.613)	3.442*** (.606)	3.052*** (.607)	3.116*** (.603)
Asian	.146 (.774)	.162 (.772)	-.113 (.771)	-.004 (.774)	.039 (.772)
Family income	.533 (.319)	-.111 (.273)	-.133 (.271)	-.114 (.269)	-.078 (.266)
Parents' education	.028 (.069)	.282** (.095)	.018 (.069)	.022 (.069)	.019 (.069)
Neighborhood poverty	.205*** (.026)	.209*** (.026)	.133*** (.035)	.206*** (.026)	.200*** (.026)
High school graduate	-2.060** (.646)	-2.030** (.646)	-2.193*** (.645)	-1.375 (1.019)	-1.926** (.648)
Some college	-3.401*** (.858)	-3.419*** (.856)	-3.588*** (.856)	-2.176 + (1.198)	-3.441*** (.858)
4-year college graduate	-3.637*** (.813)	-3.778 (.815)	-3.772 (.813)	-2.483* (1.132)	-3.441*** (.816)
Own income (Wave III)	-.373* (.167)	-.390* (.165)	-.360* (.166)	-.362* (.167)	-.168 (.209)

<i>Interaction Terms</i>	Subgroups Interacted with:					
	Family Income (W1)	Parents' Education	Neighborhood Poverty (W1)	High School Graduate	College Graduate	Own Income (WIII)
Black * resource	-1.760** (.614)	-.445* (.181)	.085 + (.044)	-2.813 + (1.655)	-4.563* (1.861)	-3.847* (1.934)
Hispanic * resource	-1.272* (.542)	-.489*** (.131)	.199*** (.049)	.028 (1.463)	-.874 (1.639)	-1.224 (1.787)

\*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$  +  $p < .10$

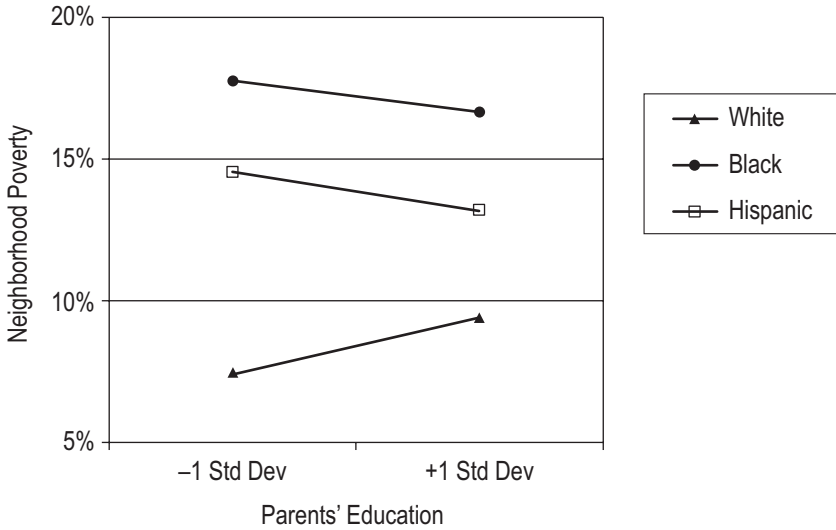
**Notes:** Regression coefficients with standard errors in parentheses. N is 2827. Models control for all variables in Model 3 of Table 2B.

neighborhood attainments of blacks and Hispanics, though the coefficient for blacks is of marginal statistical significance. When these interactions are graphed in Figure 2, the main message is one of stability in neighborhood poverty, as the slopes are strongly positive for all groups. Yet it also reveals an even steeper gradient associated with a history of neighborhood poverty among blacks and Hispanics.

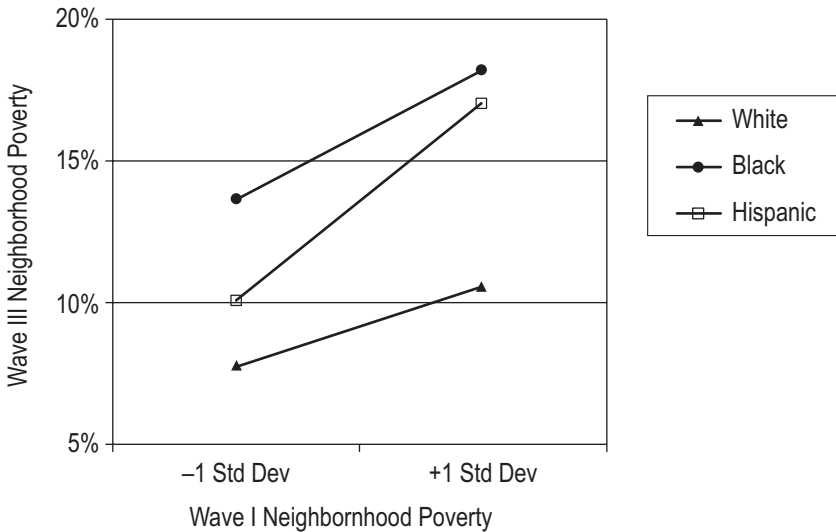
### ***Interactions between Race and Ethnicity and Emerging Adulthood Resources***

Model 7 considers differences in the influence of respondents' emerging educational attainments on changes in neighborhood poverty, by race and ethnicity and for both age groups. As the patterns are considerably different across the two age groups, we interpret each in turn, beginning with younger respondents not living with a parent (Table 3A). The main associations of graduating high school and pursuing higher education, versus not completing high school, are both positive and statistically significant. Thus, among whites, completing high school is associated with a 1.98 percentage point increase in neighborhood poverty between adolescence and young adulthood. Pursuing some postsecondary education is similarly associated with neighborhood poverty rates that are 2.17 percentage points higher, though this coefficient is only marginally significant. That pursuit of higher education is associated with higher neighborhood poverty among whites likely reflects the advantaged neighborhood attainments of their parents in adolescence, as well as the relatively impoverished neighborhoods surrounding many colleges and other educational settings (Sharkey 2012). This interpretation is also suggested by the main effect of being enrolled in school full-time (not shown),

**Figure 1. Associations between Parents' Education and Neighborhood Poverty by Race and Ethnicity**



**Figure 2. Associations between Neighborhood Poverty at Waves I and III by Race and Ethnicity**



which was positive and statistically significant for the younger respondents living independently of their parents.

Among blacks, the main positive association of pursuit of any higher education with neighborhood poverty is offset by a statistically significant and negative interaction term. Thus, black respondents (younger and not living with parents) who pursue some higher education live in neighborhoods with poverty rates

that are 1.81 percentage points lower ( $2.165 - 3.971 = -1.81$ ). A similar and more pronounced pattern is observed among Hispanics, for whom both interaction terms are negative and statistically significant. For example, Hispanic respondents who pursue higher education experience a 4.07 percentage point ( $2.165 - 6.234 = -4.07$ ) reduction in neighborhood poverty between adolescence and young adulthood, controlling for other factors.

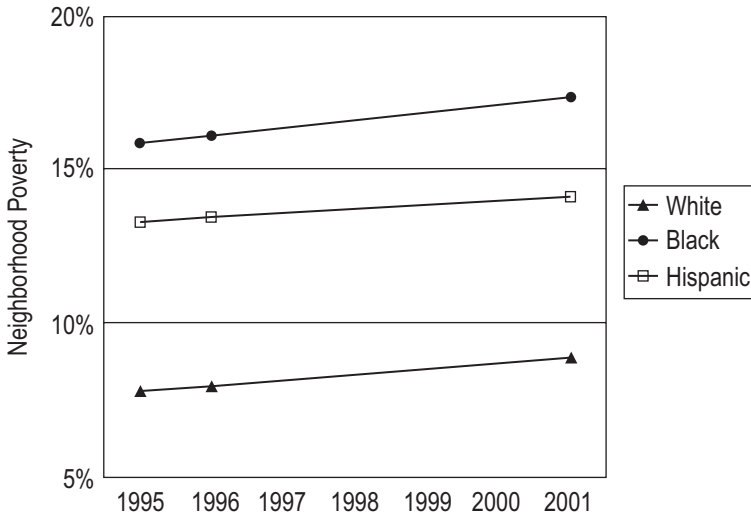
For older respondents (Table 3B) a more straightforward pattern of results is observed. Among whites, pursuit of some college and completion of a 4-year degree (compared with not finishing high school) are associated with 2.18 and 2.48 percentage point decreases, respectively, in neighborhood poverty between adolescence and young adulthood. Though also negative in sign, the main coefficient associated with high school completion is not statistically significant. Among black respondents, all forms of educational completion, compared with not finishing high school, are associated with additional reductions in neighborhood poverty, as indicated by the negative and statistically significant interactions. For example, among older black respondents, completion of a 4-year degree is associated with a 6.33 percentage point decrease in neighborhood poverty ( $-2.483 - 3.847 = -6.33$ ). The interaction terms associated with educational attainments are not statistically significant for older Hispanic respondents.

Finally, Model 8 for each group examines differences in associations between personal or household income at Wave III and neighborhood poverty across white, black and Hispanic groups. Among younger respondents (in Table 3A), income at Wave III is not associated with neighborhood poverty for any group, as neither the main nor interactive coefficients are statistically significant. Among older respondents (Table 3B), own income at Wave III appears to be significant only among blacks. The main coefficient associated with income is not statistically significant, though the interaction term of black with income is statistically significant and negative, indicating that household income is associated with decreases in neighborhood poverty.

### ***Growth Curve Models of Neighborhood Poverty***

Growth curve models provide additional information about the nature of changes in neighborhood poverty during the transition to adulthood. We focus here on older respondents not living with their parents. Due to the complexity of interpreting the individual coefficients, the results are depicted graphically in Figures 3 and 4 (see Table 4 for the models supporting these figures). As Figure 3 illustrates, inequalities in neighborhood poverty are persistent through the transition to adulthood. Inequalities observed at baseline are retained over time, as all groups experience a similar small increase in neighborhood poverty between adolescence and young adulthood. Groups do not differ in the rate of change over time, as indicated by the nonsignificant interactions of subgroup indicators with year.

This overall pattern, however, likely masks variations in neighborhood trajectories associated with emerging socioeconomic attainments in young adulthood. Figure 4 illustrates trajectories of neighborhood poverty for white and

**Figure 3. Trajectories of Neighborhood Poverty across Waves I, II, and III**

black respondents, comparing those who graduated college to those who did not finish high school. Among white respondents, graduating from college is associated with a lower initial level of neighborhood poverty, compared with those dropping out of high school, but the rate of change for both groups is the same, following the slight increase in neighborhood poverty from the previous figure. Among black respondents, not completing high school (i.e., compared with graduating from college) is associated with both a higher initial level of neighborhood poverty and a relatively sharp increase in neighborhood poverty over time. Completion of college, among black respondents, is associated with a slight decrease in neighborhood poverty, and a slight reduction in the gap between more educated white and black respondents. Yet the most educated black respondents still do not achieve the neighborhood attainments of the least educated whites. Separate trajectories for Hispanic respondents are not shown due to the nonsignificance of the Hispanic by educational attainment interactions.

Model 3 in Table 4 assesses whether respondents' own incomes in young adulthood are associated with changes in neighborhood poverty for white, black and Hispanic respondents. The interaction of year with own income is significant, indicating that all three groups experience a decrease in neighborhood poverty with increasing income. The interaction of income, year and black indicates that black respondents experience the greatest decreases in neighborhood poverty with increasing income.<sup>4</sup>

Overall, the results from the growth curve models are consistent with the previously presented lagged dependent variable models. Additional growth curve models (not shown), run for the other subgroups (i.e., those living with parents at Wave III and the younger respondents not living with parents) are similarly consistent with previous results.

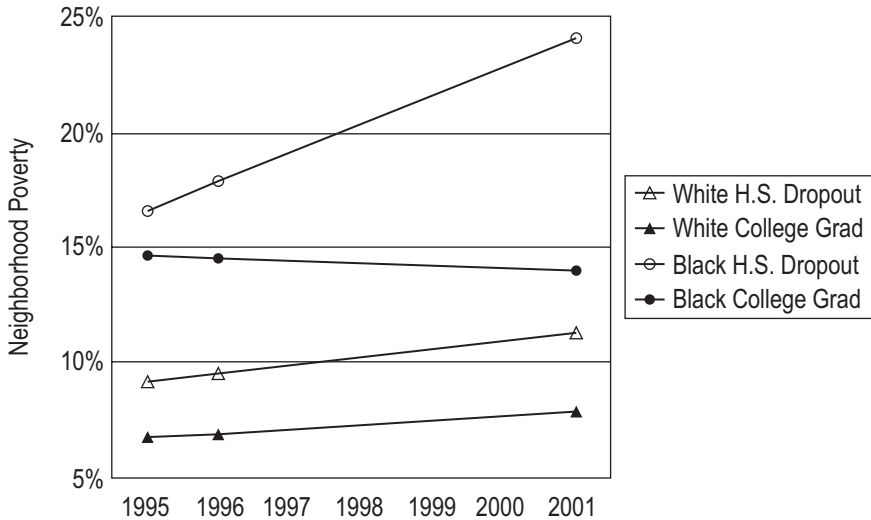


**Table 4. Growth Curve Models of Neighborhood Poverty: Age 23 Years or Older and Not Living with Parents**

Variables	(1)	(2)	(3)
Intercept	9.895*** (1.071)	9.987*** (1.068)	9.761*** (1.066)
Black	7.366*** (.554)	7.401*** (.555)	7.381*** (.554)
Hispanic	3.250*** (.577)	3.331*** (.581)	3.253*** (.576)
Year	.183*** (.054)	.190*** (.056)	.189*** (.055)
Year * Black	.067 (.110)	.038 (.112)	.029 (.111)
Year * Hispanic	-.050 (.101)	-.072 (.103)	-.051 (.101)
Year * high school		-.208 (.193)	
Year * some college		-.181 (.205)	
Year * college grad		-.170 (.200)	
Year * Black * high school		-.759* (.315)	
Year * Black * some college		-1.111** (.343)	
Year * Black * college grad		-1.202*** (.350)	
Year * Hispanic * high school		-.067 (.276)	
Year * Hispanic * some college		-.235 (.302)	
Year * Hispanic * college grad		-.177 (.323)	
Year * own income (Wave III)			-.072* (.034)
Year * Black * own income			-.190* (.075)
Year * Hispanic * own income			-.026 (.061)

\*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$   $p < .10$

**Notes:** Models include controls for female, age, family structure, parents education, family income and foreign born. Models are based on 2827 individuals and 7296 observations across Waves I, II and III.

**Figure 4. Trajectories of Neighborhood Poverty by Race and Educational Attainment**

## Discussion

Taken as a whole, the findings of this study offer insights into changing racial and ethnic inequalities in locational attainments during the transition to adulthood in the United States. In some respects the findings extend those of previous studies which have emphasized the durability of neighborhood (dis)advantage across generations, particularly for nonwhite groups (Sampson 2009; Sharkey and Sampson 2008). Consistent with the place stratification perspective we find that persons who are black, Mexican or of other Hispanic origin live in poorer neighborhoods than do whites. Moreover, these inequalities persist when controlling for family resources in adolescence, and one's own emerging socioeconomic attainments and life course transitions in early adulthood. The study also considered the experiences of Asians, who were found to live in neighborhoods that are statistically indistinguishable from whites with respect to neighborhood poverty.

Building upon past longitudinal studies of locational attainment, and research on the transition to adulthood more broadly, this study illustrates the importance of a life course perspective to understanding neighborhood inequalities. Not only are family background resources important, but so too are resources associated with one's emerging socioeconomic attainments in early adulthood. At the same time, however, the early transition to adulthood is marked by considerable heterogeneity of experiences, with respondents traversing a multitude of inter-related transitions in education, work and family, many of which have implications for neighborhood attainments. Of most significance is whether young adults were living with their parents. Also important to consider were variations by age. Considered jointly, age and living with parents structured

several different patterns of neighborhood attainments in early adulthood. At one extreme are younger respondents still living with their parents, for whom current and past parental resources were predictive of neighborhood attainments. At the other end of the spectrum are older respondents living independently of their parents, for whom emerging adult resources (e.g., income, work hours, educational attainment) and transitions (e.g. marriage) predicted neighborhood attainments. At the same time, it is the older and independently living respondents for whom racial and ethnic inequalities tended to be greatest.

This study also examined the place stratification hypothesis that associations between socioeconomic resources and locational outcomes would vary across racial and ethnic groups. Consistent with the perspective that racial and ethnic minorities are doubly disadvantaged (i.e., the strong version of the place stratification model), we found that one's neighborhood poverty in adolescence had a stronger association with neighborhood poverty in young adulthood for black and Hispanic respondents. This suggests that neighborhood poverty in adolescence is more of a poverty trap for these groups relative to whites, though it should be recalled that neighborhood poverty was a strong predictor for all groups, including whites.

We also found that parental education and income and one's own emerging educational attainments led to larger locational benefits among blacks and Hispanics than among whites. For example, black and Hispanic respondents whose parents had completed more education or who had higher incomes experienced larger decreases in neighborhood poverty between adolescence and young adulthood compared with whites. The importance of education for changes in neighborhood poverty, particularly among blacks, is consistent with recent research suggesting a growing importance of education as a source of residential segregation (Massey, Rothwell and Domina 2009). At the same time, it is important to place these findings within the context of the overall socioeconomic inequalities between groups. While these findings suggest some optimism regarding the benefits of education for blacks and Hispanics, they must be balanced by the fact that these groups are less likely to have high socioeconomic status parents or to pursue higher education themselves, and start out in much more disadvantaged neighborhoods than do white youth. Moreover, the neighborhood attainments of the most advantaged among these minority subgroups do not even reach those of disadvantaged white respondents, which is consistent with the weak version of the place stratification model.

This study and the recent research of Sharkey (2012) are among the first to examine inequalities in neighborhood attainment in early adulthood. The present study is largely consistent with Sharkey's findings regarding the persistent nature of racial and ethnic inequalities. Sharkey focused on residential transitions, finding that destination characteristics were important moderators of neighborhood trajectories. Our study focused on whether or not respondents were still living with parents, controlled for the number of moves, and then examined the role of socioeconomic and other life course transitions. That pursuit of education was a critical factor for black respondents in this study may be related to the distance

of moves, and characteristics of destinations associated with going to college. Future Add Health research should examine whether destination characteristics moderate this study's findings. Future Add Health research might also examine changes in neighborhood racial composition.

A critically important issue raised by [Sharkey's \(2012\)](#) research is whether these modest gains by black and Hispanic respondents are short-lived, or more enduring. Using a wider range of ages in the PSID (i.e., from 17 to 35 years of age), Sharkey found that the gains of black respondents in early adulthood disappeared as they advanced further into adulthood. Our comparisons of younger and older respondents sheds some light on this issue, though our oldest respondents are closer to Sharkey's youngest. For white respondents younger than 23 years of age, completion of higher education and full-time enrollment were associated with increases in neighborhood poverty. This no doubt reflects the nature of neighborhoods surrounding colleges and universities, which tend to have higher poverty rates, but often also high levels of human capital. Thus, among the college going, neighborhood attainments may be somewhat misleading and of a temporary nature. If contextual data for Wave IV of Add Health are made available, future research will be able to examine this issue.

This study is not without limitations. As a school-based study, the Add Health sample does not capture the experiences of those who had dropped out of school by Wave I. This is more of an issue for the older youth in the sample, as the representativeness of middle school students at Wave I is less likely to be influenced by dropout. Add Health does contain considerable variation in neighborhood environments at Wave I, including a sizable group (23.3%) of youth living in poor (20% or more of families below poverty) neighborhoods. Compared with [Timberlake's \(2007b\)](#) estimates of childhood neighborhood poverty inequalities by race in 1990, the weighted Add Health sample data are fairly representative. For example, Timberlake reports rates of living in poor (20%+) neighborhoods of 10.7 and 53.9 percent for whites and blacks respectively, compared with 13.9 and 46.3 percent in Add Health. Overall, this suggests that the inequalities observed in the present study may represent somewhat conservative estimates.

A common methodological issue in the neighborhood literature is that of selection effects or unobserved heterogeneity. Although selection remains a possibility in the present study, particularly with respect to unmeasured factors such as family wealth ([Crowder, South and Chavez 2006](#); [Woldoff and Ovdia 2009](#)), this paper seeks to contribute to the perspective on selection advocated by [Sampson and Sharkey \(2008\)](#). By using a life course approach to studying neighborhood attainments, selection is viewed as a substantive issue in itself, "a social process central to the reproduction of racial inequality" ([Sampson and Sharkey 2008:1](#)). Some uncertainty also exists with regard to the temporal ordering of life course transitions and neighborhood characteristics at Wave III. In some cases, respondents may have moved to their current neighborhoods prior to other life course transitions.

Future research should consider the historical context of these results. Much of the locational attainment literature has been based on experiences during economic dislocations in the 1970s and 1980s. The present study examined

locational attainment experiences during the late 1990s, a period during which poverty rates (both individual and neighborhood) decreased for nearly all groups (Jargowsky 2005). Gains of the late 1990s have since been reversed by a period of economic contraction.

Another avenue for future research is to follow the gains or losses of different generations of Hispanic subgroups. While the present analysis contributed by examining different subgroups and controlling for foreign-born status, we did not fully examine the issue of generational status. Thus, a question remains: do the findings hold across respondents whose parents were born in the United States versus those who emigrated? Further, will the findings hold for the children of the young adults in the current sample, most of whom were born in the United States?

Though an inability to establish causality precludes drawing specific policy implications, we hope that our findings will contribute to policy discussions regarding neighborhood effects. Whereas programs such as Gautreaux and Moving to Opportunity (MTO) have focused on mobility interventions (see reviews by Sampson 2008; Clampet-Lundquist and Massey 2008), the present study suggests the continuing importance of investments in educational attainment, particularly for black and Hispanic subgroups. Similarly, while it is not possible to conclude that racial discrimination in housing explains the racial and ethnic inequalities detailed in this paper, the findings suggest that blacks and Hispanics remain at a considerable disadvantage compared with whites with respect to locational attainments in early adulthood.

## Notes

1. Age 23 allows about 4 or 5 years after high school to have completed college. It also results in sufficient numbers of “older” respondents for the stratified analyses. Results combining all respondents and those using slightly different cutoffs (e.g., 24 years of age or older) yielded similar results with respect to both substance and statistical significance.
2. Moves are observed among respondents still living with parents as well. Of those still living with parents at Wave III, 39 percent had moved at least once since Wave I and 22 percent had moved multiple times.
3. Neighborhood-level variables are entered as fixed effects.
4. In the growth curve models presented in Table 4, educational attainment and own income at Wave III were entered only in the random slope models, moderating the association of year with neighborhood attainments. Because of temporal ordering issues, they are not included in the random intercept models, as it does not make sense to have educational attainments in early adulthood predicting initial levels of neighborhood poverty in adolescence. As an additional sensitivity check, however, we ran models with these variables also predicting the intercepts and observed a similar pattern of findings with respect to differences across the groups.

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