# Racial and Ethnic Inequality in the Duration of Children's Exposure to Neighborhood Poverty and Affluence[*]

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**Abstract**

Despite recent scholarly concern with "neighborhood effects" on children, no study to date has measured the cumulative exposure of children to neighborhood poverty. In this paper I construct multi-state period life tables to estimate racial and ethnic differences in the amount of time children can expect to live in poor and nonpoor neighborhoods throughout childhood. At early 1990s rates, Black children can expect to spend over 60 percent of childhood in neighborhoods with poverty rates in excess of 20 percent. The corresponding figures for White and Hispanic children are about 14 and 36 percent, respectively. I find that racial differences in childhood exposure to neighborhood poverty are due largely to differences in the probability of being born into a poor neighborhood. Finally, White children spending an increasing share of childhood in the most affluent type, and Black children spending more time in the poorest type.

Sociological inquiry into the effects of neighborhood characteristics on the behavior and life chances of individuals spans nearly the entire history of the discipline (Riis 1890; Addams 1910; Park and Burgess 1925; Drake and Cayton 1945; Clark 1965). More recently, William Julius Wilson is credited with rekindling sociologists' concern with "neighborhood effects" on children (Jencks and Mayer 1990:111; Furstenberg and Hughes 1997; Gephart 1997; Small and Newman 2001; Sampson, Morenoff, and Gannon-Rowley:446). In *The Truly Disadvantaged*, Wilson (1987) argues that a combination of urban industrial decline and the migration of middle class Blacks[1] out of inner city neighborhoods in the 1970s resulted in sharp increases in the concentration of poverty in urban Black neighborhoods. According to Wilson, these trends have had catastrophic effects on the capacity of inner city parents to socialize children successfully. In very poor neighborhoods, contends Wilson (1987:57),

> the chances are overwhelming that children will seldom interact on a sustained basis with people who are employed or with families that have a steady breadwinner. The net effect is that joblessness, as a way of life, takes on a different social meaning; the relationship between schooling and postschool employment takes on a different meaning. The development of cognitive, linguistic, and other educational and job-related skills necessary for the world of work in the mainstream economy is thereby adversely affected… A vicious cycle is perpetuated through the family, through the community, and through the schools.

In short, Wilson hypothesizes that children who grow up in poor neighborhoods experience more negative outcomes in school and in the labor market than otherwise equivalent children who grow up in nonpoor neighborhoods. Wilson's work prompted a flurry of inquiry into the effects of neighborhood context on child well-being. Among the many outcomes that have been studied recently are school achievement (Brooks-Gunn et al. 1993; Connell and Halpern-Felsher 1997; Harding 2003), teenage fertility (Sucoff and Upchurch 1998; South and Baumer 2000; Harding 2003), and delinquency (Bellair and Roscigno 2000; Duncan, Boisjoly,

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[1] I use the terms "White" and "Black," to refer to non-Hispanic White and non-Hispanic Black individuals, respectively. I follow Rubinowitz and Rosenbaum (2000) in capitalizing these terms, reflecting the fact that, like Asians and Hispanics, American Blacks and Whites share salient ethnic and cultural characteristics.

and Harris 2001; Rankin and Quane 2002). Other scholars have focused attention on the difficulties Black middle class parents face in raising children in poorer neighborhoods than those occupied by White middle class families (Furstenberg et al. 1999; Pattillo-McCoy 1999). Although the findings of this research have been mixed (see Jencks and Mayer 1990; Elliott et al. 1996; Furstenberg et al. 1999), the bulk of the evidence indicates that neighborhoods do appear to exert small independent effects on children.

As a result of this valuable research we now know much about the presence and size of the *effects* of childhood exposure to neighborhood poverty. However, and perhaps somewhat surprisingly, we know little about the *duration* of children's exposure to poor and nonpoor neighborhoods. Focusing on childhood is important because there are sound theoretical reasons to suspect that neighborhoods have powerful influences on children's life chances. Early childhood and adolescence are crucial periods in which life trajectories are shaped via the influences of peer relationships, schooling, and initial labor market experiences. Children are overwhelmingly exposed to these influences in their local neighborhood. By contrast, theory is less well developed on how residence in a poor or affluent neighborhood might affect adult outcomes, in part because adults tend to be more geographically footloose in the course of daily activities (Rankin and Quane 2002).

Focusing on duration of exposure is important because if neighborhood characteristics indeed have effects on children, it can logically only be true that these characteristics exert their effects via the duration of exposure to risk. That is, a five-minute spell in a poor neighborhood should exert no measurable effect on a child, except perhaps to increase slightly her risk of crime victimization (and even then it is the five minutes that increases the risk, not simply the exposure in a dichotomous sense). Furthermore, a one-year spell of exposure to a neighborhood's conditions should have less of an effect on child outcomes than a ten-year spell of exposure. In

Quillian's (2003:222) words, "[m]ost of the mechanisms through which neighborhood poverty is believed to be linked to child and adolescent development… are likely to have effects that require at least moderately long exposure."

Thus, in this study I use longitudinal data and multi-state period life table techniques to investigate racial and ethnic inequality in the share of childhood spent in affluent and low, moderate, high, and extreme poverty neighborhoods. The goals of this paper are threefold. I first compare "childhood expectancy" across neighborhoods between Whites and Blacks, with Hispanics as a comparative case. The term "childhood expectancy" denotes the percentage of childhood (birth to exact age 18) the average child is expected to spend in a given neighborhood type (Heuveline, Timberlake, and Furstenberg 2003). This analysis provides a baseline measure of racial inequality in childhood exposure to neighborhood SES. I then compare White and Black childhood expectancy by neighborhood type at birth (i.e., whether children were born in poor or nonpoor neighborhoods). The findings of this analysis indicate the extent to which aggregate racial inequality is caused by differential exposure at birth to neighborhood poverty versus racial differences in rates of upward and downward neighborhood mobility. Finally, I examine the extent to which White/Black inequality in childhood exposure to neighborhood poverty has changed over time. In so doing I implicitly measure the joint effects of increasing residential segregation by income (Jargowsky 1996), and the increasing prevalence of neighborhood poverty for Blacks (Wilson 1987; Jargowsky 1997), on trends in racial inequality in childhood exposure to neighborhood poverty.

**Racial and Ethnic Inequality in Neighborhood Context**

An extensive social science literature, reporting findings from analyses of numerous data sources, has demonstrated two facts about racial differences in neighborhood context. First, Blacks tend to live in neighborhoods with higher levels of physical and social problems than

those occupied by otherwise comparable Whites (Alba and Logan 1991, 1993; Logan and Alba 1993; Alba, Logan, and Bellair 1994; Rosenbaum 1994, Logan, Alba, and Leung 1996; Logan et al. 1996; Logan and Stults 1999; Rosenbaum et al. 1999; Sampson, Morenoff, and Earls 1999; Alba, Logan, and Stults 2000; White and Sassler 2000; Rosenbaum and Friedman 2001). Second, in a given period Blacks are less likely than Whites to move at all (South and Deane 1993; Crowder 1997, 2001; South and Crowder 1998a), less likely to transition from poor to nonpoor neighborhoods, and more likely to transition from nonpoor to poor neighborhoods (Gramlich, Laren, and Sealand 1992; Massey, Gross, and Shibuya 1994; Quillian 1997; South and Crowder 1997, 1998a).

However, few studies to date bear directly on the question of racial differences in the duration of childhood exposure to neighborhood poverty. St. John and Miller (1995) use 1980 and 1990 census data from Chicago and five southwestern cities to compare the proportions of Black, White, and Latino children residing in neighborhoods with poverty rates of greater than 40 percent. They find that in 1990 Black children were 7 to 48 times more likely to live in such neighborhoods in the Southwest, and over 91 times more likely in Chicago. Rosenbaum and Friedman (2001) find that among households with children in New York City, native-born Black households are located in neighborhoods with significantly higher levels of juvenile delinquency, teenage fertility, and AFDC receipt, and lower levels of math achievement in school. However, neither of these studies investigates total childhood durations of exposure to poor neighborhoods.

More closely related to the present study are analyses performed by South and Crowder (1998a) and Quillian (2003). South and Crowder estimate transition probabilities for Black and White single mother-headed households with children. They find that Black single mothers are less likely than White single mothers to move from poor to nonpoor neighborhoods and more likely to move from nonpoor to poor neighborhoods, controlling for household socioeconomic

status and life course characteristics. Quillian estimates the length of spells experienced by Black and White heads of household in poor (between 20% and 40% poor), and very poor (greater than 40% poor) neighborhoods. He finds that about 60 percent of the Black population will reside in a poor neighborhood over a 10-year period, compared to just 10 percent of Whites. He also finds that of the Whites who do experience exposure to poor neighborhoods, about 40 percent will remain in those neighborhoods 10 years later, compared to 70 percent of equivalent Blacks.

The present analysis complements and extends Quillian's research in at least two ways. First, I compare the experiences of Black, White, and Hispanic children, on whom much of the "neighborhood effects" literature has focused. Second, the "spells" approach Quillian employs is useful for estimating the prevalence of transitory and chronic membership in a given neighborhood type. However, even children who only spend a short period of time in a poor neighborhood during any given spell might experience multiple spells of varying lengths. Thus, knowing that a large proportion of spells in poor neighborhoods are relatively short yields only indirect information about time spent in poor neighborhoods throughout childhood. The advantage of the life table approach I employ is that it records the cumulative amount of time children are expected to spend in a particular type of neighborhood. Finally, by comparing childhood expectancies across neighborhood types at birth, I am able to estimate the effects of two sources of racial differences in childhood exposure to neighborhood poverty: racial differences in the probability of being born into a poor neighborhood, and racial differences in rates of transition between poor and nonpoor neighborhoods.

**Data**

*Panel Study of Income Dynamics*

The primary source of data for this research is the Panel Study of Income Dynamics (PSID), waves 1970 through 1993 (PSID 2002). The PSID was first administered in 1968 to 4,800

families (comprising about 18,000 individuals), and then yearly thereafter. At the time it was first fielded the PSID was representative of noninstitutionalized U.S. residents and their families (PSID 1987). As children left the households of the original sample, they were followed and interviewed along with their new family members. By 1993 the PSID comprised over 28,000 individuals, nested within some 9,500 households. The representativeness of the sample has been maintained over time, despite some attrition (Fitzgerald, Gottschalk, and Moffitt 1998).

In 1990 the PSID drew a supplementary sample of about 1,700 Hispanic families; thus, I was able to perform single-period comparisons between White, Black, and Hispanic children. Because the original PSID panel contains few Hispanic families, however, I had to restrict single-period analyses by neighborhood type at birth and cross-period analyses to children with Black or White heads of household. In addition, I restricted analyses to children living in metropolitan areas (MAs).[2] I use individual-level weighted data to perform all analyses (PSID 1998:22-38).

In the early 1990s, the University of Michigan's Institute for Social Research (ISR) released the 1970 and 1980 Geocode Match Files (GMFs), which enabled researchers to append tract-level information from the 1970 and 1980 U.S. census to PSID data. Unfortunately, these files did not contain addresses for 1969, 1975, 1977, 1978, or any year after 1985. Thus, much research on racial differences in residential mobility has been limited to analyzing data from the years 1979 to 1985 (Gramlich 1992; Crowder 1997, 2001; Quillian 1997, 1999; South and Crowder 1997, 1998a, 1998b). This restricted time frame has hamstrung researchers' ability to exploit fully the potential of geocoded PSID data for understanding racial inequality in neighborhood context over time. The recently-released 1990 GMF contains addresses for 1986 to

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[2] In 1992 the Census Bureau defined MAs as places with a minimum population of 50,000 or a Bureau-defined urbanized area and a total population of at least 100,000 (75,000 in New England). MAs comprise one or more central counties, and may include outlying counties that have close economic and social relationships with the central county. In New England MAs are composed of cities and towns rather than whole counties (U.S. Bureau of the Census 1992b).

1993. In addition, while preparing the 1990 file, ISR staff found address files for 1975, 1977, and 1978 in a bank safe deposit box (Kim and Padot 1999:5). Thus, in this research I am able to analyze an uninterrupted series of data from 1970 to 1993.

*U.S. Census Data*

I used the 1990 GMF to link PSID data with summary tape file data from the 1970 through 1990 U.S. censuses (U.S. Bureau of the Census 1972, 1982a, 1992a). These files contain information on population and housing for states and their subareas in hierarchical sequence down to the block group level. The addition of census data to the PSID results in a singular source of data on household-level variables such as family structure and socioeconomic status (SES), and information about the neighborhoods in which families live, measured by proxy with census tracts.[3]

*Problems of Intercensal Comparability*

The PSID tracks whether respondents moved between yearly interviews. In addition, the 1990 GMF records the state, county, and census tract each respondent lives in at the time of the yearly interview. However, some tracts on the 1990 GMF did not exist in 1970 or 1980, since many tracts changed boundaries between censuses. I used the Census Bureau's 1970 to 1980 and 1980 to 1990 tract match files (U.S. Census Bureau 1982b, 1992c) to convert all 1980 tract codes on both the 1990 GMF and the 1980 census file to their 1990 equivalents. In addition, whereas PSID respondents are surveyed every year, tract information is only measured at three time points. Therefore, I imputed 1971 to 1993 intercensal (and extracensal) tract values via

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[3] The Census Bureau defines census tracts as "small, relatively permanent statistical subdivisions of a county… [with] between 2,500 and 8,000 persons and, when first delineated, are designed to be homogeneous with respect to population characteristics, economic status, and living conditions" (U.S. Bureau of the Census 1992b, appendix A). While tracts may not perfectly replicate the subjective definitions citizens have of their "neighborhoods" (Lee and Campbell 1997; Campbell et al. 2002), many researchers have used tracts as the best available proxy (e.g., White 1987; Jargowsky 1997; South and Crowder 1997; Quillian 1999). Moreover, if subjective deviations are distributed randomly across individuals there would be no bias in measures of "neighborhood" characteristics (see Sampson et al. 1999).

exponential interpolation and extrapolation, using 1970 through 1990 census data. For this

procedure I assume a constant population growth rate $r$ between each pair of censuses (Preston,

Heuveline, and Guillot 2001). I estimated tract characteristic $X$ in inter- or extracensal year $t$ with

the following formula:

$$X_t = X_{t-n} e^{rn}, \tag{1}$$

where

$$r = \frac{1}{20} \left( \frac{\left[ \sum_{t=1970}^{1990} \ln\left( \frac{X_{t+10}}{X_t} \right) PY_{t,t+10} \right]}{PY_{1970,1990}} \right) 100, \tag{2}$$

where $X$ is a MA-level characteristic measured in census years $t$ and $t + 10$, $PY_{t,t+10}$ are person-

years lived between census years $t$ and $t + 10$, and $PY_{1970,1990}$ are person-years lived between

1970 or 1980 and 2000, respectively (Preston, Heuveline, and Guillot 2001, p. 12; Heuveline

2004). Person-years are estimated with the following formula:

$$PY_{1970,1990} = \frac{\left( N_{1990} - N_{1970} \right) 20}{\ln\left( \frac{N_{1990}}{N_{1970}} \right)}. \tag{3}$$

Thus, equation (2) yields annualized rates of change in MA characteristic $X$, weighted by

decade-specific rates of change to account for variations in the timing of growth (i.e., early or

late) over the 20-year period. I then matched tracts on the census data files to tracts on the GMF,

resulting in a data file that contains PSID variables on children and census data on tracts for the

1970 to 1993 period.

**Methods**

*Multi-state Period Life Tables*

Period life tables are a general class of demographic models that describe the transition over time of a cohort of individuals from one life state to another.[4] In its most classic form, a mortality life table describes the dying out of a birth cohort. However, life tables can be extended to other situations to describe "exits" or "decrements" from one life state to another, such as from single to married status. In this example, a multiple decrement life table is used to account for the competing risks of marriage and death for members of a birth cohort (Preston et al. 2001). The multi-state (or increment-decrement) life table is an extension of these methods in that (1) individuals don't necessarily transition from one state to another; and (2) some destination states are "non-absorbing;" that is, flows to (increments) and from (decrements) various states are possible (Palloni 2001:256).

*State Space*

The multi-state approach begins with defining the state space, or the mutually exclusive and exhaustive set of values of the categorical dependent variable. I measured neighborhood SES with the percentage of residents in poverty, which has been of considerable interest to scholars in recent years, and is highly correlated with other measures of neighborhood SES (Harris 1999). Jargowsky and Bane (1991) developed a categorical measure of neighborhood poverty by defining neighborhoods with less than 20 percent poverty as "nonpoor," those with 20 to 40 percent poverty "poor," and those with greater than 40 percent poverty "extremely poor." The authors confirmed the validity of these categories by visiting neighborhoods in a number of cities, finding that neighborhoods in poorer categories appeared more distressed on a number of

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[4] In contrast to cohort life tables, which simply record what happens to a birth cohort as it ages, period life tables estimate what *would* happen to a birth cohort if it were to experience, in this case, the age-specific neighborhood transition probabilities that exist during the period in which the birth cohort is defined, e.g., January 1, 1990 to December 31, 1993. Because the future experiences of such cohorts are not observed, but rather estimated with period conditions, demographers refer to them as "synthetic" birth cohorts (Preston et al. 2001, p. 42).

subjective indicators. Local census officials confirmed these subjective rankings (Jargowsky and Bane 1991).

I extend the work of Jargowsky and Bane by defining three "nonpoor" neighborhood types: "affluent" neighborhoods have 3 percent or less of their residents in poverty,[5] "low poverty" neighborhoods are those with poverty rates of between 3 percent and 10 percent, and "moderate poverty" neighborhoods are defined as having 10 to 20 percent of their residents in poverty. I also define two "poor" neighborhood types: "high poverty" neighborhoods have between 20 and 40 percent poverty, and "extreme poverty" neighborhoods feature poverty rates in excess of 40 percent.[6] Although these five states obviously don't capture all of the variation in neighborhood conditions, many researchers have used similar categories as proxies for neighborhood "types" (e.g., Jargowsky 1997; South and Crowder 1997, Quillian 1997, 1999).

*Life Table Estimation*

There are two principal methods to construct a multi-state life table—one based on rates of transition (Palloni 2001), and another based on probabilities of transition (Heuveline et al. 2003; Heuveline and Timberlake 2002) between states. With repeated cross-sectional data, transitions are not directly observed, so researchers must use the former, more cumbersome method. With panel data, however, survivorship ratios can be estimated directly as:

$$\frac{_n^i N_x^j(t)}{_n N_{x-n}^i(t-n)} = \frac{_n^i L_x^j[t-n,t]}{_n L_{x-n}^i[t-n,t]}, \tag{4}$$

where

$_n N_{x-n}^i(t-n)$   is the number of children aged $x$ - $n$ to $x$ and in state $i$ at time $t$ - $n$;

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[5] This neighborhood type might be more precisely labeled "extremely nonpoor," since it is not necessarily true that neighborhoods with low poverty rates are affluent in other respects. It turns out that the average family income in neighborhoods in the affluent category corresponds to the top decile of the distribution.

[6] The collapsed "poor" and "nonpoor" categories match those of previous research (e.g., Quillian 1997; South and Crowder 1997). I also define one state for children who are censored, either because they entered the sample after birth (left-censored), or they were temporarily or permanently "lost to follow-up," either due to death or attrition.

$_n^i N_x^j (t)$          is the number of children aged $x$ to $x + n$ and in state $j$ at time $t$ who were in state $i$

at time $t$ - $n$;

$_n L_{x-n}^i [t - n, t]$   is the number of child-years lived in state $i$, between ages $x$ - $n$ and $x$ in the period

$[t$ - $n, t]$;

$_n^i L_x^j [t - n, t]$     is the number of child-years lived in state $j$, between ages $x$ - $n$ and $x$ in the period

$[t$ - $n, t]$ by children who were in state $i$ at time $t$ - $n$; and

$i$ and $j$            is any state, unless $i$ is permanently lost to follow-up, in which case $j = i$.

       Using weighted geocoded PSID data, I reconstructed the neighborhoods in which

children lived yearly (i.e., $n = 1$) from birth to age 18 and calculated the quantities

$_1 N_{x-1}^i (t - 1)$ and $_1^i N_x^j (t)$ at any time $t$. I then obtained the distribution of child years lived across

states between ages $x$ and $x + 1$ from the same distribution between ages $x - 1$ and $x$ using

equation (4) above and the following accounting identity:

$$_1 L_x^j [t - 1, t] = \sum_{i=1}^{I} {}_1^i L_x^j [t - 1, t].$$             (5)

With the resulting period life tables, I estimated childhood expectancies in the five neighborhood

states by racial and ethnic group, neighborhood type at birth, and synthetic birth cohort.[7]

*Methodological Limitations*

       The individual-level independent variables in this analysis are the racial or ethnic identity

of the child and neighborhood type at birth. For describing gross racial and ethnic inequality in

childhood exposure to neighborhood poverty, the multi-state life table analysis I perform is

adequate. However, this approach makes the simplifying assumption that all individuals within a

given life table share the same probabilities of transitioning from one neighborhood type to

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[7] I do not distinguish between transitions between neighborhood types that are caused by residential moves, and those that occur when a residentially nonmobile child's neighborhood crosses some poverty threshold from year $t$ – 1 to $t$. In this paper I am interested in estimating racial inequality in childhood expectancy in different neighborhood types, not, for example, in the probability of transitioning between neighborhood types via one or the other mechanism.

another. As Quillian (1997:76) notes, "this assumption is convenient but surely incorrect." Indeed, models of racial differences in neighborhood context contend that characteristics of households affect the chances that families will move at all, or experience upward or downward neighborhood mobility (Alba and Logan 1991). Future research should strive to estimate the effects of household- and metropolitan area-level variables on racial and ethnic differences in childhood exposure to neighborhood poverty and affluence.

**Findings**

*Cross-sectional Findings*

Table 1 presents distributions of neighborhood types and distributions of Whites, Blacks, and Hispanics across those types in 1970, 1980, and 1990. The percentage of affluent tracts declined sharply from 1970 to 1980 and then rebounded in 1990, while the proportion of extremely poor tracts increased slightly from 1970 to 1980, and then more rapidly from 1980 to 1990. These figures are consistent with prior research showing increasing economic residential segregation during the 1970s and 1980s (e.g., Jargowsky 1996). Similar patterns can be observed with respect to the distribution of Blacks and Whites across neighborhood types, with several notable exceptions. First, the percentage of Blacks living in affluent neighborhoods nearly doubled from 1980 to 1990, whereas the share of affluent tracts increased more slowly—by about 40 percent— during the same period. Second, while the percentage of extremely poor tracts increased by less then 30 percent from 1970 to 1980, the percentage of Blacks living in such neighborhoods increased by nearly 77 percent.

These findings reflect prior research showing that the concentration of Black poverty increased dramatically during the 1970s (Massey and Eggers 1990), and that affluent Blacks were increasingly able to put distance between themselves and the Black poor during the 1980s (Jargowsky 1996). Finally, note that whereas the distribution of White children is nearly

identical to that of all Whites, Black children are underrepresented in nonpoor neighborhoods,

and overrepresented in poor neighborhoods, compared to all Blacks. This finding suggests that

racial inequality in childhood exposure to neighborhood poverty and affluence may be especially

great among children.

(Table 1 about here)

What do the cross-sectional findings in Table 1 tell us about total childhood exposure to

neighborhood poverty and affluence? In general, cross-sectional data cannot shed light on what

happens to individuals and families as they progress through time. As Gramlich et al. (1992:

274) note, "it remains unclear whether the poor people living in poor urban areas are… the same

poor people who lived in the same areas at some earlier date." Under certain demographic

conditions, however, cross-sectional data yield accurate estimates of life expectancies in given

states. Demographers refer to populations as being "stable" when the following conditions

prevail over a long period of time: (1) constant or constantly changing age-specific fertility rates;

(2) constant age-specific mortality rates; and (3) constant age-specific net migration rates[8]

(Preston et al. 2001: 141). In the multi-state framework, if rates of transition to and from the

different states remain constant for a sufficient period of time, then life expectancy in a given

state would equal the cross-sectional proportion in that state (Preston and Campbell 1993).

Under the assumptions of the stable population model, therefore, we should find that a

synthetic cohort of Black or White children born in the early 1990s can expect to spend shares of

childhood in different neighborhood types roughly corresponding to the cross-sectional

distributions of children in those types (see Table 1, bottom right-most panel). For example,

Black children should expect to spend about 18 percent of childhood in extremely poor

neighborhoods, and White childhood expectancy in affluent neighborhoods should equal about

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[8] I thank Patrick Heuveline for pointing out that although Preston et al. (2001, p. 141) simplify the discussion of the stable population model by listing age-specific net migration rates of zero, this condition is "unnecessarily restrictive and constant age-specific migration rates would work too" (Heuveline 2003).

10 percent of childhood. To see whether a longitudinal approach diverges from this cross-sectional picture, I present findings from life table analysis in the next section.

*Racial and Ethnic Differences in Childhood Expectancy Across Neighborhood Types*

*All birth statuses*. Table 2 and Figures 1 and 2 present childhood expectancies in the five neighborhood types, for a synthetic birth cohort estimated for the 1990 to 1993 period. The top row of Table 2 and Figure 1 pertain to all neighborhood types at birth. Subsequent rows of Table 2 and Figure 2 break the findings down by neighborhood type at birth. Because the original PSID panel contained few Hispanic families, I cannot observe the birth status for Hispanic children born from 1973 to 1989, which is necessary for the latter analysis.

(Table 2 about here)

At early 1990s rates, Black children born between 1990 and 1993 in metropolitan areas can expect to spend over 60 percent of their childhoods in neighborhoods with poverty rates in excess of 20 percent (the sum of the top two sections in the middle bar in Figure 1). The corresponding figures for White and Hispanic children are about 14 and 36 percent, respectively. Note that although childhood expectancy in "high poverty" neighborhoods (20 to 40% poor) is nearly identical for Blacks and Hispanics (about 30% of childhood), Hispanic children can expect to spend much less time in extremely poor neighborhoods than Black children (7.6% vs. 33.4%, respectively). White children can expect to live nearly 5 times longer in neighborhoods with less than 3 percent poverty than Black children (31.1% vs. 6.7%). Childhood expectancy in affluent neighborhoods for Hispanic children is 1/12 that of White and 2/5 that of Black children. On average, White children can expect to spend over 85 percent of childhood in nonpoor neighborhoods (less than 20% poor), whereas this expectancy is 64 percent for Hispanic children and 37 percent for Black children.

(Figure 1 about here)

The findings of this analysis indicate that White children are overwhelmingly advantaged with respect to Hispanic and especially Black children in terms of childhood expectancy in affluent and extremely poor neighborhoods. Consistent with their status as "intermediate" minorities in the American racial and ethnic hierarchy (Zubrinsky and Bobo 1996), Hispanic children can expect to spend very little time in either of the two extreme neighborhood types. Rather, childhood expectancies for Hispanic children were concentrated in the three middle categories, with each accounting for about 30 percent of childhood. Thus, although Hispanic children can expect to spend less time than Black children in affluent neighborhoods, and about the same amount of time in high poverty neighborhoods, Hispanic children can expect to spend much less time in extremely poor neighborhoods, and much more time in low poverty neighborhoods.

These findings also indicate that the cross-sectional findings do not correspond well to the period life table findings. If the U.S. population were truly stable with respect to rates of transition into and out of neighborhood types, we should expect Black children to spend about 18 percent of childhood in extremely poor neighborhoods. The findings in Table 1 and Figure 1 indicate that, at early 1990s rates, Black children can expect to spend nearly twice that long (33.4% of childhood) in such neighborhoods. Similarly, under the stable population model we would expect White children to spend about 10 percent of childhood in affluent neighborhoods. The period life table findings suggest that White children can expect to spend three times that long in such neighborhoods.

A combination of two factors results in the life table estimates' divergence from the cross-sectional picture. First, the distribution of neighborhood types at birth has shifted over time. For example, the probability of being born into an extremely poor neighborhood has increased over time for Black children, from 16.0 percent in 1980 to 22.3 percent in 1992. Thus,

even if Black children never moved from their neighborhood of birth, the 18 percent of Black children living in very poor neighborhoods in 1990 (Table 1, lower-right-hand panel) would reflect the better experiences of older cohorts, while a childhood expectancy of 33 percent derived from the life table (Table 2, row 1) would reflect the greater likelihood of being born and raised in extremely poor neighborhoods for more recent cohorts. Conversely, in 1980, 12.4 percent of White children were born in the most affluent neighborhood type, increasing to 22.6 percent by 1992. Thus, even if age-specific transition probabilities were constantly zero, the increasing likelihood of White children's being born in affluent neighborhoods would cause the life table estimates to differ sharply from the cross-sectional findings.

Second, transition probabilities from and to affluent and extremely poor neighborhoods have changed over time (violating the third condition of the stable population model [Preston et al. 2001:141]), with Black children experiencing increasing probabilities of downward neighborhood mobility and decreasing probabilities of upward neighborhood mobility, and White children experiencing the reverse. For example, the conditional probability[9] of a Black child's transitioning from an extremely poor neighborhood into a less poor neighborhood decreased from 0.240 in 1980 to 0.046 in 1992, while the equivalent likelihood of transitioning into an extremely poor neighborhood from another neighborhood type increased during the same period from 0.036 to 0.161. For White children, the conditional probability of transitioning from an affluent neighborhood into a poorer neighborhood decreased from 0.187 in 1980 to 0.036 in 1992, while the equivalent likelihood of transitioning into an affluent neighborhood from another neighborhood type increased during the same period from 0.046 to 0.064.

*Findings by neighborhood type at birth*. The bottom three rows of Table 2 and Figure 2 present findings for Black and White children, by neighborhood type at birth. These findings

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[9] That is, conditional on a child's beginning a mobility interval in an extremely poor neighborhood.

indicate the extent to which Black and White children are "trapped" in poor neighborhoods (or reside continuously in nonpoor neighborhoods) from birth. For Black and White children I estimate childhood expectancies in the five neighborhood types by poor and nonpoor birth statuses. In addition, I estimate childhood expectancies for children born in "moderate poverty" neighborhoods, since this is the only neighborhood type in which a substantial fraction of both Black and White children are born.

To begin with, there are large racial differences in the probability of being born into a nonpoor neighborhood. From 1990 to 1993, about 83 percent of White children were born in neighborhoods with less than 20 percent poverty (the sum of the first three columns in row 1 of Table 2). Only about 28 percent of Black children were born in such neighborhoods. At one extreme of the distribution, White children were 45 times more likely than Black children and 90 times more likely than Hispanic children to be born in an affluent neighborhood. At the other, Black children were 8 times more likely than White children and 5 times more likely than Hispanic children to be born in an extremely poor neighborhood.

However, once neighborhood type at birth is held constant, inequality between Black and White children declines relative to all birth status. For children born in poor neighborhoods (greater than 20 percent poor), White childhood expectancy in such neighborhoods is less than 10 percent lower than that for Black children (53.4 + 17.5 = 70.9 percent for White children; 33.8 + 46.5 = 80.3 percent for Black children—row 5 of Table 2), yielding a White:Black ratio of 0.88. For all birth statuses, the equivalent ratio is 0.23. Thus, White/Black inequality is much lower (i.e., the White:Black ratio of childhood expectancy in poor neighborhoods is closer to 1.0) for children born in poor neighborhoods than for children of all birth statuses. However, of the 80.3 percent of childhood that Black children can expect to spend in poor neighborhoods, more

than half of this expectancy is in extremely poor neighborhoods. By contrast, White children can expect to spend only about 18 percent of childhood in the poorest neighborhood type.

For children born in nonpoor neighborhoods, the White:Black ratio of childhood expectancy in nonpoor neighborhoods is 1.34. For all birth statuses, the equivalent ratio is 2.31. Thus, again, the White:Black ratio is closer to 1.0 after controlling for neighborhood type at birth. Whereas White children born to all birth statuses can expect to spend nearly five times longer than Black children in the most affluent neighborhood type, this ratio drops to a little over two for children born in nonpoor neighborhoods. Finally, although Black children born in nonpoor neighborhoods can expect to spend only about 5 percent of childhood in the poorest neighborhood type (compared to 33 percent for all birth statuses), White children's exposure to such neighborhoods is virtually zero (about 8/1000 of a person-year, the equivalent of about 3 person-days).

The only neighborhood type in which a substantial proportion of both Black and White children were born is the "moderate poverty" type. About 20 percent of White children and 15 percent of Black children were born in this type from 1990 to 1993. Even among children born in this neighborhood type, White children can expect to spend much longer in nonpoor neighborhoods (88 percent vs. 58 percent of childhood), and much less time in poor neighborhoods (12 percent vs. 42 percent).

(Figure 2 about here)

Thus, at early 1990s rates, there is a great deal of racial inequality in children's exposure to neighborhood poverty and affluence throughout childhood. Although inequality persists even when controlling for neighborhood type at birth, racial differences in childhood expectancy appear to be driven largely by the chances of being born in a nonpoor or poor neighborhood. Put differently, Black children born in nonpoor neighborhoods don't appear to suffer dramatically

higher rates of downward neighborhood mobility than equivalent White children. However, given that White children are nearly three times more likely than Black children to be born into nonpoor neighborhoods (82.7 percent vs. 28.4 percent), aggregate racial differences in childhood expectancy remain high.

One way to gauge the effect of neighborhood type at birth is to ask what Black childhood expectancies in different neighborhood types would be if Black and White children were equally likely to be born into nonpoor neighborhoods. Note that the second row of Table 2 is essentially a weighted average of the third and fifth rows, where the weights are the proportions of Black and White children born into nonpoor and poor neighborhoods. I therefore standardized the unconditional distribution of childhood expectancies for Black and White children using the average neighborhood birth type probabilities for the whole sample. I found that about 68 percent of the total racial difference in childhood expectancy across neighborhood types is due to racial differences in the probability of being born into a nonpoor or poor neighborhood.[10] The remainder, or 32 percent, reflects higher rates of upward neighborhood mobility for White children and higher rates of downward neighborhood mobility for Black children. Thus, Black/White inequality in neighborhood context is largely related to the effects of racial differences in the probability of being born into a poor neighborhood.

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[10] The formula for this calculation is:

$$100 \times \left( 1 - \frac{\sum_{i=1}^{5}\left(P_i^{W} - P_i^{B}\right)^2}{\sum_{i=1}^{5}\left(P_i^{W'} - P_i^{B'}\right)^2} \right),$$

where $P_i^{W}$ is the observed White childhood expectancy in neighborhood $i$; $P_i^{B}$ is the observed Black childhood expectancy in neighborhood $i$; $P_i^{W'}$ is White childhood expectancy in neighborhood $i$, using the average birth status distribution; and $P_i^{B'}$ is Black childhood expectancy in neighborhood $i$, using the average birth status distribution.

*Changes in Racial Inequality Over Time*

The findings I have presented thus far pertain only to synthetic birth cohorts defined as of the early 1990s. It is conceivable that racial differences observed at this time are unique, because the early 1990s occurred at the end of an economic recession, and preceded the economic boom of the mid- to late-1990s. I cannot compare these findings with more recent trends; however, in this section I examine whether racial inequality was increasing from the early 1970s to the early 1990s. This period has been extensively studied by researchers because of changes in the concentration of Black poverty and within-racial group economic segregation during those two decades (Wilson 1987; Jargowsky 1996). To see how racial inequality in childhood exposure to neighborhood poverty and affluence has changed over time, I calculated three-year moving averages of childhood expectancies in the five neighborhood types from 1972 to 1992. Findings for Whites appear in Figure 3, and Figure 4 presents findings for Blacks, and Figure 5 presents racial differences (White minus Black) in childhood expectancy in the five neighborhood types.

(Figure 3 about here)

(Figure 4 about here)

The findings suggest that for the most part, childhood expectancies have remained relatively stable over time (see Figure 5), with several exceptions. First, White childhood expectancy in affluent neighborhoods increased rapidly from the late 1980s to the early 1990s, likely reflecting both increasing income bifurcation among Whites (Farley 1996) and increasing economic segregation among Whites during the 1980s (Jargowsky 1996). Second, although Black childhood expectancy in high and extreme poverty neighborhood remained relatively constant over time, hovering between 60 and 70 percent (the sum of the top two sections in Figure 4), the share of childhood expectancy in extremely poor neighborhoods increased dramatically over time. For the 1972 to 1973 period, I estimate that Black childhood expectancy

in extremely poor neighborhoods was only about 10 percent of childhood (or less than two child-years). By the 1991 to 1992 period, that figure had ballooned to nearly 40 percent of childhood (or 7.2 child-years). These figures indicate that the burdens of childrearing for metropolitan area Blacks shifted over time from doing so in very poor neighborhoods to doing so in extremely poor neighborhoods. They also indicate that, whatever the benefits to growing up in affluent neighborhoods may be, White children increasingly benefited from exposure to such neighborhoods from the early 1970s to the early 1990s.

In Figure 5 I present racial inequality (White minus Black) in childhood expectancy in the five neighborhood types. Note that racial inequality in time expected to be spent in affluent neighborhoods has tripled during the time period (from a racial gap of 10 percent to 30 percent), while inequality in childhood expectancy in low poverty neighborhoods has been nearly halved (from about 50 percent to about 25 percent). At the other extreme, racial inequality in childhood expectancy has increased in extreme poverty neighborhoods and decreased in high poverty neighborhoods. These two findings reflect the fact that childhood expectancy in the "nonpoor" neighborhood types (less than 20 percent poor) has shifted from low poverty to affluent for White children, and that childhood expectancy in the "poor" neighborhood types (greater than 20 percent poor has shifted from high poverty to extreme poverty neighborhoods for Black children. Racial inequality in the "moderate poverty" neighborhood type has remained low over time.

(Figure 5 about here)

**Summary and Conclusions**

In this study I estimated racial differences in the duration of childhood exposure to neighborhood poverty and affluence. I found that, at early 1990s rates, Black children can expect to spend a much larger share of childhood in extremely poor neighborhoods than Hispanic and White children. Conversely, White children on average can expect to spend the lion's share of

childhood in affluent and low poverty neighborhoods. Although childhood expectancy for Blacks in affluent neighborhoods was slightly larger than that for Hispanics, Hispanic children can expect to spend nearly twice as long as Black children in the three "nonpoor" neighborhood types combined. Conditioning on neighborhood type at birth, I found less White/Black inequality, suggesting that a major cause of racial differences in childhood exposure to neighborhood poverty is Black children's higher likelihood of being born into poor neighborhoods. Over time, there has been some shifting of childhood expectancy from high poverty to extreme poverty for Black children, and from low poverty to affluent for White children. However, for the most part racial inequality in childhood expectancy in nonpoor (less than 20 percent poverty) and poor (greater than 20 percent poverty) neighborhoods remained relatively stable in the 1970s and 1980s.

There are at least three implications of this study for racial stratification research. First, it provides a renewed emphasis on context and environment as an indicator of racial inequality in socioeconomic status. Politicians and the general public have focused a great deal of attention on declining racial inequality in individual- and family-level indicators of socioeconomic status, and during the economic boom of the past decade, African Americans experienced quite a bit of success on indicators like these. For example, the Black/White gap in educational achievement has declined—as of 1995 Blacks had less than a one percent lower chance of graduating from high school than Whites did, and Blacks experienced a tenfold increase in rates of college completion from 1940 to 1995 (Patterson 1997:20-21). In 1995 the Black poverty rate was the lowest it had ever been, and the Black unemployment rate was the lowest it had been since 1972 (Patterson 1997:30-31). Black/White occupational inequality declined steadily and substantially from 1940 to 1990 (King 1992).

However, the findings of this research suggest that massive levels of inequality remain in the neighborhood contexts to which children are exposed as they progress through childhood. Furthermore, the evidence suggests that at best, this inequality has remained constant over the past two decades. Further research is needed to determine the effects of different durations of exposure to neighborhood poverty and affluence, and whether these effects vary by stage in child development. For example, do two years in a poor neighborhood matter more, less, or the same from age 0 to 2 than from age 14 to 16? Increasing scholarly focus on durations of exposure to neighborhood conditions has become all the more imperative in light of recent evidence on the effects of long-term exposure to poor neighborhoods on child outcomes. Two recent studies using cross-sectional data (Furstenberg et al. 1999; Duncan et al. 2001) found few and small effects of neighborhood context on adolescent outcomes. However, other evidence suggests that long-term exposure to neighborhood context has substantial effects on child outcomes (Rubinowitz and Rosenbaum 2000; Furstenberg 2001; Harding 2003; Turley 2003).

Thus, the accretion of experiences growing up in particular kinds of neighborhoods likely has effects on outcomes in later adolescence and young adulthood that are not detectable either in the cross-section or at younger ages. Research must continue to identify the specific mechanisms by which neighborhoods affect the life chances of children (see Sampson et al. 2002); however, what is apparent from the present study is that whatever duration effects residence in poor and nonpoor neighborhoods have, Black children, and to a lesser extent Hispanic children, face massive disadvantages compared to White children.

Second, given the fact that most Black children do not reside in poor families, it is evident that a large proportion of the child-years spent in poor neighborhoods are being spent by nonpoor Black children. Ethnographic evidence has shown that Black middle class teenagers face profoundly different neighborhood environments than their White counterparts (Anderson

1999; Pattillo-McCoy 1999). This evidence and the present study should serve to inform debates about the causes of Black middle class children's continued poorer performance in school and in the labor market compared with their White middle class peers.

Finally, the findings of this research suggest that a major cause of racial differences in childhood expectancy in poor and affluent neighborhoods is racial differences in the neighborhood birth status distribution, in addition to higher rates of upward neighborhood mobility for Whites and of downward neighborhood mobility for Blacks. At early 1990s rates, Black children born in nonpoor neighborhoods can expect to spend over 70 percent of childhood in such neighborhoods (see Table 2 and Figure 2). It appears that once Black families make their way to nonpoor neighborhoods, they are nearly as likely as White families to raise their children for the duration of childhood in such neighborhoods. This interpretation is consistent with recent evidence from residential mobility programs, which shows that once poor Black families from public housing projects are placed in nonpoor neighborhoods, they are overwhelmingly likely to remain in nonpoor neighborhoods 10 to 15 years later (DeLuca and Rosenbaum 2002; Keels, Duncan, and Rosenbaum 2002).

However, the weight of historical and contemporary discrimination and mutual racial animosity has resulted in Black children's much greater likelihood of starting out life in poor neighborhoods. Racial differences in neighborhood birth status are likely caused by two proximate factors: higher poverty rates among Black families, and continuing high levels of residential segregation. Massey and colleagues have shown that the combination of these two forces has produced extremely high levels of poverty concentration for Blacks (Massey 1990; Massey and Eggers 1990; Massey et al. 1994; Massey and Fischer 2000). I conclude that in order for racial inequality in childhood exposure to neighborhood poverty to diminish substantially, the probability of birth into a nonpoor neighborhood for Black children must be increased. Thus,

public policy should be directed both at improving the conditions of neighborhoods where

Blacks currently live, through increased investment in education and employment opportunities,

and at reducing persistently high levels of racial residential segregation.

**References**

Addams, Jane. 1910. *Twenty Years at Hull-House*. New York: Macmillan Company.

Alba, Richard D. and John R. Logan. 1991. "Variations on Two Themes: Racial and Ethnic Patterns in the Attainment of Suburban Residence." *Demography* 28:431-453.

_____. 1993. "Minority Proximity to Whites in Suburbs: An Individual-Level Analysis of Segregation." *American Journal of Sociology* 98:1388-1427.

Alba, Richard D., John R. Logan, and Paul E. Bellair. 1994. "Living with Crime: The Implications of Racial/Ethnic Differences in Suburban Location." *Social Forces* 73:395-434.

Alba, Richard D., John R. Logan, and Brian J. Stults. 2000. "How Segregated Are Middle-Class African Americans?" *Social Problems* 47:543-58.

Anderson, Elijah. 1999. *Code of the Street: Decency, Violence, and the Moral Life of the Inner City*. New York: W.W. Norton & Company.

Bane, Mary Jo and David T. Ellwood. 1986. "Slipping into and Out of Poverty: The Dynamics of Spells." *Journal of Human Resources* 21:2-23.

Bellair, Paul E. and Vincent J. Roscigno. 2000. "Local Labor-Market Opportunity and Adolescent Delinquency." *Social Forces* 78:1509-38.

Brooks-Gunn, Jeanne, Greg J. Duncan, Pamela Kato, and Naomi Sealand. 1993. "Do Neighborhoods Influence Child and Adolescent Behavior?" *American Journal of Sociology* 99:353-95.

Campbell, Elizabeth, Julia Henly, Delbert S. Elliott, and Katherine Irwin. 2002. "The Meaning and Measurement of Neighborhood Boundaries: Lessons from a Qualitative Study of Five Neighborhoods." Paper presented at the annual meeting of the American Sociological Association. Chicago, IL.

Clark, Kenneth B. 1965. *Dark Ghetto: Dilemmas of Social Power*. New York: Harper and Row.

Connell, James P. and Bonnie L. Halpern-Felsher. 1997. "How Neighborhoods Affect
     Educational Outcomes in Middle Childhood and Adolescence: Conceptual Issues and an
     Empirical Example." In *Neighborhood Poverty Volume I: Context and Consequences for
     Children*, edited by Jeanne Brooks-Gunn, Greg J. Duncan, and J. Lawrence Aber. New
     York: Russell Sage Foundation.

Crowder, Kyle D. 1997. *The Racial Context of Residential Mobility: Neighborhood Conditions
     and Metropolitan Constraints*. Unpublished Doctoral Dissertation. Albany, NY: The
     University at Albany, State University of New York.

_____. 2001. "Racial Stratification in the Actuation of Mobility Expectations: Microlevel
     Impacts of Racially Restrictive Housing Markets." *Social Forces* 79:1377-96.

DeLuca, Stefanie and James E. Rosenbaum. 2002. "If Low-Income Blacks Are Given a Chance
     to Live in White Neighborhoods, Will They Stay? Examining Mobility Patterns with
     Quasi-Experimental Data." Working Paper No. WP-02-28. Evanston, IL: Institute for
     Policy Research, Northwestern University.

Drake, St. Clair and Horace R. Cayton. [1945] 1993. *Black Metropolis: A Study of Negro Life in
     a Northern City*. New York: Harcourt, Brace, and Co.

Duncan, Greg J., Johanne Boisjoly, and Kathleen Mullan Harris. 2001. "Sibling, Peer, Neighbor,
     and Schoolmate Correlations as Indicators of the Importance of Context for Adolescent
     Development." *Demography* 38:437-47.

Elliott, Delbert S., William Julius Wilson, David Huizinga, Robert J. Sampson, Amanda Elliott,
     and Bruce Rankin. 1996. "The Effects of Neighborhood Disadvantage on Adolescent
     Development." *Journal of Research in Crime and Delinquency* 33:389-426.

Farley, Reynolds. 1996. *The New American Reality: Who We Are, How We Got Here, Where*

*We're Going*. New York: Russell Sage Foundation.

Fitzgerald John, Peter Gottschalk, and Robert Moffitt. 1998. "An Analysis of Sample Attrition in Panel Data: The Michigan Panel Study of Income Dynamics." *Journal of Human Resources* 33:251-99.

Furstenberg, Frank F., Jr. 2001. "Beyond Neighborhoods: A Follow-Up of the Philadelphia Study." Paper presented at the Annual Meeting of the American Sociological Association. Anaheim, CA, August, 2001.

Furstenberg, Frank F., Jr., Thomas D. Cook, Jacquelynne Eccles, Glen H. Elder, Jr., and Arnold Sameroff. 1999. *Managing to Make It: Urban Families and Adolescent Success*. Chicago: University of Chicago Press.

Furstenberg, Frank F., Jr. and M.E. Hughes. 1997. "The Influence of Neighborhoods on Children's Development: A Theoretical Perspective and a Research Agenda. Pp. 23-47 in *Neighborhood Poverty: Policy Implications in Studying Neighborhoods. Vol. 2*, edited by J. Brooks-Gunn, G. J. Duncan, and J.L. Aber. New York: Russell Sage Foundation.

Gephart, Martha A. 1997. "Neighborhoods and Communities as Contexts for Development." In *Neighborhood Poverty Volume I: Context and Consequences for Children*, edited by Jeanne Brooks-Gunn, Greg J. Duncan, and J. Lawrence Aber. New York: Russell Sage Foundation.

Gramlich, Edward, Deborah Laren, and Naomi Sealand. 1992. "Moving into and out of Poor Urban Areas." *Journal of Policy Analysis and Management* 11:273-87.

Harding, David J. 2003. "Counterfactual Models of Neighborhood Effects: The Effect of Neighborhood Poverty on Dropping Out and Teenage Pregnancy." *American Journal of Sociology* 109:676-719.

Harris, David R. 1999. "All Suburbs Are Not Created Equal: A New Look at Racial Differences

in Suburban Location." Report No. 99-440. Ann Arbor, MI: Population Studies Center at the Institute for Social Research, University of Michigan.

Heuveline, Patrick. 2003. Personal correspondence, June 30.

_____. 2004. Personal correspondence, March 12.

Heuveline, Patrick and Jeffrey M. Timberlake. 2002. "Toward a Child-Centered Life Course Perspective on Family Structures: Multi-State Early Life Tables." In E. Klijzing and M. Corijn (Eds.), *Fertility and Partnership in Europe: Insights and Lessons from Comparative Research, Volume II*. New York/Geneva: United Nations.

Heuveline, Patrick, Jeffrey M. Timberlake, and Frank F. Furstenberg, Jr. 2003. "Shifting Child Rearing to Single Mothers: Results from 17 Western Nations." *Population and Development Review* 19:47-71

Jargowsky, Paul A. 1994. "Ghetto Poverty among Blacks in the 1980s." *Journal of Policy Analysis and Management* 13:288-310.

_____. 1996. "Take the Money and Run: Economic Segregation in U.S. Metropolitan Areas." *American Sociological Review* 61: 984-98.

_____. 1997. *Poverty and Place: Ghettoes, Barrios, and the American City*. New York: Russell Sage Foundation.

Jargowsky, Paul A. and Mary Jo Bane. 1991. "Ghetto Poverty in the United States, 1970-1980." In *The Urban Underclass*, edited by Christopher Jencks and Paul Peterson. Washington, DC: The Brookings Institution.

Jencks, Christopher and Susan E. Mayer. 1990. The Social Consequences of Growing up in a Poor Neighborhood." In *Inner-City Poverty in the United States*, edited by L. E. Lynn, Jr. and M. G. H. McGeary. Washington, DC: National Academy Press.

Keels, Micere, Greg J. Duncan, and James Rosenbaum. 2002. "Long-Term Effects of a

Residential Mobility Program on Family Economic Status." Paper presented at the Annual Meeting of the Population Association of America. Atlanta, GA, May, 2002.

Kim, Yong-Seong and David Padot. 1999. "Documentation for the 1970, 1980 and 1990 PSID Geocode Match Files." Third Edition. Ann Arbor, MI: Economic Behavior Program, Survey Research Center, Institute for Social Research, The University of Michigan.

King, Mary. 1992. "Occupational Segregation by Race and Sex, 1940-1988." *Monthly Labor Review* 115:30-37.

Lee, Barrett and Karen Campbell. 1997. "Common Ground? Urban Neighborhoods as Survey Respondents See Them." *Social Science Quarterly* 78:922-936.

Logan, John R. and Richard D. Alba. 1993. "Locational Returns to Human Capital: Minority Access to Suburban Community Resources." *Demography* 30:243-267.

Logan, John R., Richard D. Alba, and Shu-Yin Leung. 1996. "Minority Access to White Suburbs: A Multiregional Comparison. *Social Forces* 74:851-881.

Logan, John R., Richard D. Alba, Tom McNulty, and Brian Fisher. 1996. "Making a Place in the Metropolis: Locational Attainment in Cities and Suburbs." *Demography* 33:443-53.

Logan, John R. and Brian J. Stults 1999. "Racial Differences in Exposure to Crime: The City and Suburbs of Cleveland in 1990." *Criminology* 37:251-276.

Massey, Douglas S. 1990. "American Apartheid: Segregation and the Making of the Underclass." *American Journal of Sociology* 96:329-57.

Massey, Douglas S. and Mitchell L. Eggers. 1990. "The Ecology of Inequality: Minorities and the Concentration of Poverty, 1970 – 1980. *American Journal of Sociology* 95:1153-88.

Massey, Douglas S. and Mary J. Fischer. 2000. "How Segregation Concentrates Poverty." *Ethnic and Racial Studies* 23:670-691.

Massey, Douglas S., Andrew B. Gross, and Kumiko Shibuya. 1994. "Migration, Segregation,

and the Concentration of Poverty." *American Sociological Review* 59:425-45.

Palloni, Alberto. 2001. "Increment-Decrement Life Tables." In *Demography: Measuring and Modeling Population Processes*, by S. H. Preston, P. Heuveline, and M. Guillot. Oxford, UK: Blackwell Publishers.

Panel Study of Income Dynamics (PSID). 1987. *User's Guide*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan.

_____. 1998. *Guide to the 1993 Interviewing Year*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan.

_____. 2002. *Panel Study of Income Dynamics, Waves 1970 to 1993* [MRDF]. Ann Arbor MI: Institute for Social Research [producer]. Survey Research Center [distributor].

Park, Robert E. and Ernest W. Burgess. [1925] 1984. *The City*. Chicago: University of Chicago Press.

Patterson, Orlando. 1997. *The Ordeal of Integration: Progress and Resentment in America's "Racial" Crisis*. Washington, DC: Civitas/Counterpoint.

Pattillo-McCoy, Mary. 1999. *Black Picket Fences: Privilege and Peril Among the Black Middle Class*. Chicago: University of Chicago Press.

Preston, Samuel H. and Cameron Campbell. 1993. "Differential Fertility and the Distribution of Traits: The Case of IQ." *American Journal of Sociology* 98:997-1019.

Preston, Samuel H., Patrick Heuveline, and Michel Guillot. 2001. *Demography: Measuring and Modeling Population Processes*. Oxford, UK: Blackwell Publishers.

Quillian, Lincoln. 1997. *The Dynamics of Concentrated Urban Poverty*. Unpublished Doctoral Dissertation. Cambridge, MA: Harvard University.

_____. 1999. "Migration Patterns and the Growth of High-Poverty Neighborhoods, 1970-1990. *American Journal of Sociology* 105:1-37.

_____. 2003. How Long Are Exposures to Poor Neighborhoods? The Long-Term Dynamics of
Entry and Exit from Poor Neighborhoods." *Population Research and Policy Review*
22:221-49.

Rankin, Bruce H. and James M. Quane. 2002. "Social Contexts and Urban Adolescent
Outcomes: The Interrelated Effects of Neighborhoods, Families, and Peers on African-
American Youth." *Social Problems* 49:79-100.

Riis, Jacob A. 1890. *How the Other Half Lives: Studies among the Tenements of New York*. New
York: Charles Scribner's Sons.

Rosenbaum, Emily. 1994. "The Constraints on Minority Housing Choices, New York City 1978-
1987." *Social Forces* 72:725-47.

Rosenbaum, Emily and Samantha Friedman. 2001. "Differences in the Locational Attainment of
Immigrant and Native-Born Households with Children in New York City." *Demography*
38:337-48.

Rosenbaum, Emily, Samantha Friedman, Michael H. Schill, and Hielke Buddelmeyer. 1999.
"Nativity Differences in Neighborhood Quality among New York City Households."
*Housing Policy Debate* 10:625-58.

Rubinowitz, Leonard S. and James E. Rosenbaum. 2000. *Crossing the Class and Color Lines:
From Public Housing to White Suburbia*. Chicago: University of Chicago Press.

St. John, Craig and Shana M.B. Miller. 1995. "The Exposure of Black and Hispanic Children to
Urban Ghettos: Evidence from Chicago and the Southwest." *Social Science Quarterly*
76:562-76.

Sampson, Robert J., Jeffrey D. Morenoff, and Felton Earls. 1999. "Beyond Social Capital:
Spatial Dynamics of Collective Efficacy for Children." *American Sociological Review*
64:633-60.

Sampson, Robert J., Jeffrey D. Morenoff, and Thomas Gannon-Rowley. 2002. "Assessing 'Neighborhood Effects:' Social Processes and New Directions in Research." *Annual Review of Sociology* 28:443-78.

Small, Mario Luis and Katherine Newman. 2001. "Urban Poverty after *The Truly Disadvantaged*: The Rediscovery of the Family, the Neighborhood, and Culture." *Annual Review of Sociology* 27:23-45.

South, Scott J. and Eric P. Baumer. 2000. "Deciphering Community and Race Effects on Adolescent Premarital Childbearing." *Social Forces* 78:1379-1407.

South, Scott J. and Kyle D. Crowder. 1997. "Escaping Distressed Neighborhoods: Individual, Community, and Metropolitan Influences." *American Journal of Sociology* 102:1040-1084.

_____. 1998a. "Avenues and Barriers to Residential Mobility Among Single Mothers." *Journal of Marriage and the Family* 60:866-77.

_____. 1998b. "Housing Discrimination and Residential Mobility: Impacts for Blacks and Whites." *Population Research and Policy Review* 17:369-87.

South, Scott J. and Glenn D. Deane. 1993. "Race and Residential Mobility: Individual Determinants and Structural Constraints." *Social Forces* 72:147-167.

Sucoff, Clea and Dawn Upchurch. 1998. "Neighborhood Context and the Risk of Childbearing among Metropolitan-Area Black Adolescents." *American Sociological Review* 63:571-85.

Turley, R. L. 2003. "When Do Neighborhoods Matter? The Role of Race and Neighborhood Peers." *Social Science Research* 32:62-79.

U.S. Bureau of the Census. 1972. *Census of Population and Housing, 1970. Summary Tape File 4A* [MRDF]. Washington, DC: Bureau of the Census [producer]. Ann Arbor, MI: Inter-

university Consortium for Political and Social Research [distributor].

_____. 1982a. *Census of Population and Housing, 1980. Summary Tape File 3A* [MRDF]. Washington, DC: Bureau of the Census [producer]. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor].

_____. 1982b. *Census of Population and Housing, 1980: Tiger/Census Tract Comparability File*. Washington, DC: Bureau of the Census.

_____. 1992a. *Census of Population and Housing, 1990. Summary Tape File 3A* [MRDF]. Washington, DC: Bureau of the Census [producer]. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor].

_____. 1992b. *Census of Population and Housing, 1990 United States: Summary Tape File 3A*. Technical Documentation. Washington, DC: U.S. Department of Commerce, Bureau of the Census, producer. Ann Arbor, MI: Inter-university Consortium for Political and Social Research, distributor.

_____. 1992c. *Census of Population and Housing, 1990: Tiger/Census Tract Comparability File*. Washington, DC: Bureau of the Census.

White, Michael J. 1987. *American Neighborhoods and Residential Differentiation*. New York: Russell Sage Foundation.

White, Michael J. and Sharon Sassler. 2000. "Judging Not Only by Color: Ethnicity, Nativity, and Neighborhood Status." *Social Science Quarterly* 81:997-1013.

Wilson, William J. 1987. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago: The University of Chicago Press.

Zubrinsky, Camille L. and Lawrence Bobo. 1996. "Prismatic Metropolis: Race and Residential Segregation in the City of the Angels." *Social Science Research* 25:335-374.

**Table 1.** **Distributions of Neighborhood Types and White, Black, and Hispanic Populations in Each Type: U.S. Metropolitan Areas, 1970 to 1990**

| | "Nonpoor" | | | | | | | | | "Poor" | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Affluent (< 3% poverty) | | | Low poverty (3 to 10%) | | | Moderate poverty (10% to 20%) | | | High poverty (20% to 40%) | | | Extreme poverty (> 40%) | | |
| | 1970 | 1980 | 1990 | 1970 | 1980 | 1990 | 1970 | 1980 | 1990 | 1970 | 1980 | 1990 | 1970 | 1980 | 1990 |
| **Tracts** | | | | | | | | | | | | | | | |
| Number | 4,823 | 2,566 | 3,995 | 18,468 | 20,823 | 21,235 | 5,156 | 9,372 | 9,940 | 2,739 | 5,741 | 6,873 | 1,132 | 1,807 | 3,449 |
| % of total | 14.9 | 6.4 | 8.8 | 57.1 | 51.7 | 46.7 | 16.0 | 23.3 | 21.8 | 8.5 | 14.2 | 15.1 | 3.5 | 4.5 | 7.6 |
| **% of total population** | | | | | | | | | | | | | | | |
| White | 15.3 | 6.1 | 9.4 | 67.5 | 64.4 | 58.8 | 12.6 | 21.6 | 21.7 | 4.0 | 7.0 | 8.7 | 0.7 | 0.8 | 1.4 |
| Black | 2.1 | 1.3 | 2.5 | 21.2 | 18.2 | 22.9 | 31.4 | 27.0 | 24.9 | 37.4 | 39.7 | 34.1 | 7.8 | 13.8 | 15.5 |
| Hispanic | 4.0 | 1.5 | 2.3 | 39.6 | 29.4 | 27.1 | 27.3 | 31.2 | 28.6 | 22.1 | 30.0 | 32.5 | 7.0 | 7.8 | 9.5 |
| **% of population under age 15[a]** | | | | | | | | | | | | | | | |
| White | -- | 6.2 | 9.9 | -- | 65.0 | 58.4 | -- | 21.0 | 21.3 | -- | 6.9 | 8.9 | -- | 0.9 | 1.5 |
| Black | -- | 0.7 | 1.6 | -- | 16.7 | 21.0 | -- | 27.0 | 24.3 | -- | 40.5 | 35.0 | -- | 15.1 | 18.1 |
| Hispanic | -- | 1.2 | 1.8 | -- | 27.6 | 24.9 | -- | 30.8 | 28.3 | -- | 31.6 | 34.5 | -- | 8.8 | 10.6 |

*Note*: "White" and "Black" groups comprise Hispanics and non-Hispanics, because the 1970 census did not tabulate race by Hispanicity.

[a] The 1970 census did not tabulate race by age, and the 1980 census only tabulated race by age categories 0-4, 5-14, 15-59, and 60+.

Source: Author's calculations from U.S. census data (U.S. Bureau of the Census 1972, 1982a, 1992a).

**Table 2.    Childhood Exposure to 5 Neighborhood Types, by Neighborhood Type at Birth: PSID Children, 1990 to 1993**

| | "Nonpoor" | | | | | | | | | "Poor" | | | | | |
| | Affluent (< 3% poverty) | | | Low poverty (3 to 10%) | | | Moderate poverty (10% to 20%) | | | High poverty (20% to 40%) | | | Extreme poverty (> 40%) | | |
| Indicator of exposure | White | Black | His-panic | White | Black | His-panic | White | Black | His-panic | White | Black | His-panic | White | Black | His-panic |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Neighborhood type at birth[a] | 20.8 | 0.5 | 0.2 | 42.2 | 13.0 | 31.5 | 19.7 | 14.9 | 28.0 | 14.3 | 48.0 | 35.2 | 3.0 | 23.6 | 5.1 |
| Childhood expectancy[b] by neighborhood type at birth: | | | | | | | | | | | | | | | |
| All types | 31.1 | 6.7 | 2.6 | 35.0 | 11.3 | 31.8 | 19.6 | 19.2 | 29.6 | 10.8 | 29.5 | 28.4 | 3.5 | 33.4 | 7.6 |
| Nonpoor | 36.0 | 17.4 | | 39.8 | 20.5 | | 20.2 | 33.8 | | 3.9 | 22.9 | | 0.0 | 5.4 | |
| Moderate poverty | 9.2 | 4.4 | n.a. | 28.2 | 13.4 | n.a. | 50.7 | 40.2 | n.a. | 11.7 | 33.6 | n.a. | 0.2 | 8.5 | n.a. |
| Poor | 6.6 | 2.1 | | 11.5 | 7.0 | | 11.1 | 10.7 | | 53.4 | 33.8 | | 17.5 | 46.5 | |

n.a.: Neighborhood status at birth not available for a sufficient number of Hispanic children prior to 1990.

[a]    Observed percentage born in neighborhood type from January 1, 1990 to December 31, 1993.

[b]    Life table estimate of percentage of childhood (birth to age 18) expected to be lived in neighborhood type.
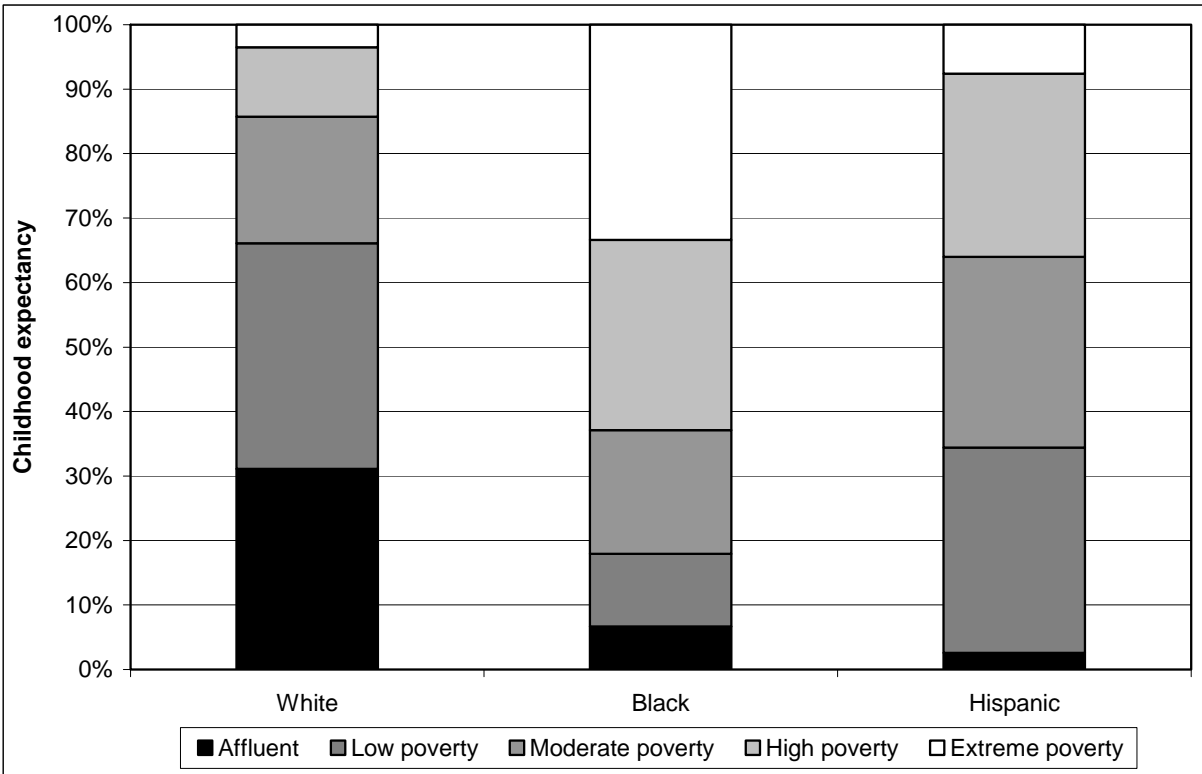
**Figure 1.** **Childhood Expectancy in 5 Neighborhood Types: PSID Children, 1990 to 1993**
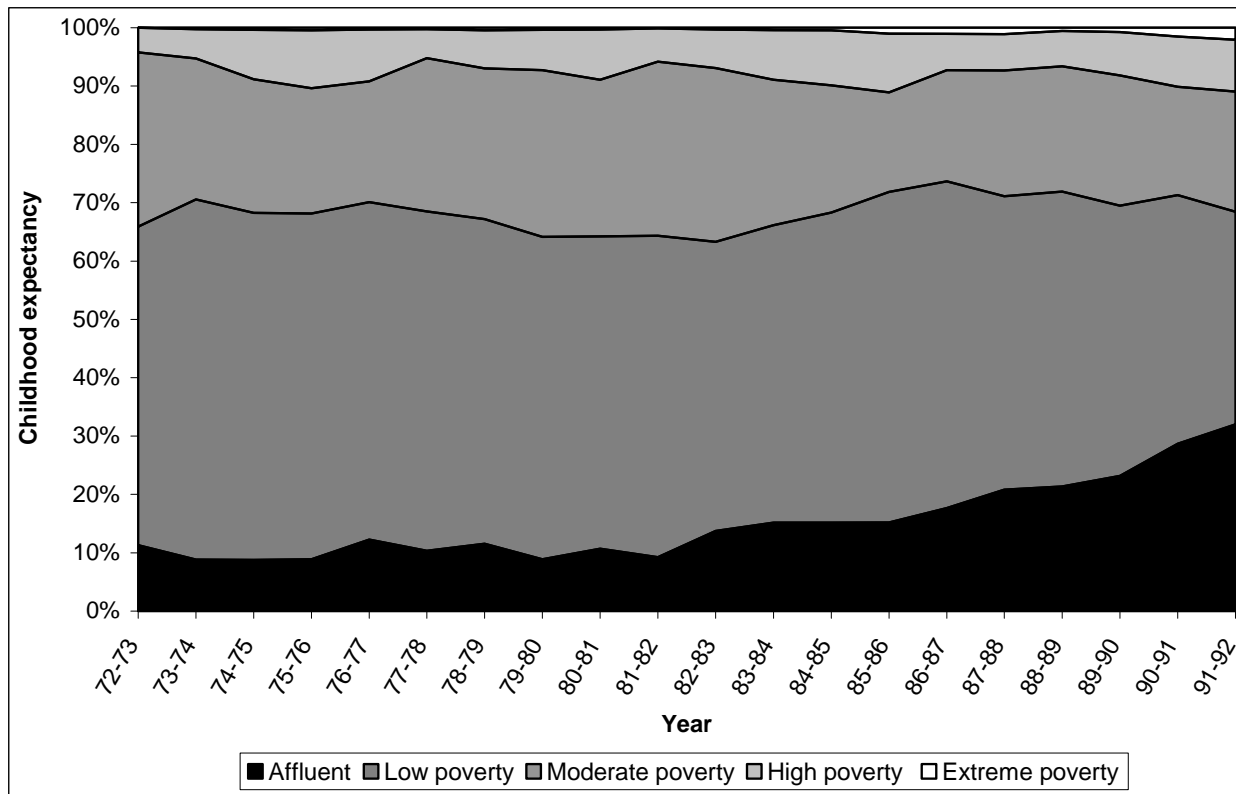
*Note* : Figures from a synthetic birth cohort estimated for the 1990 to 1993 period.
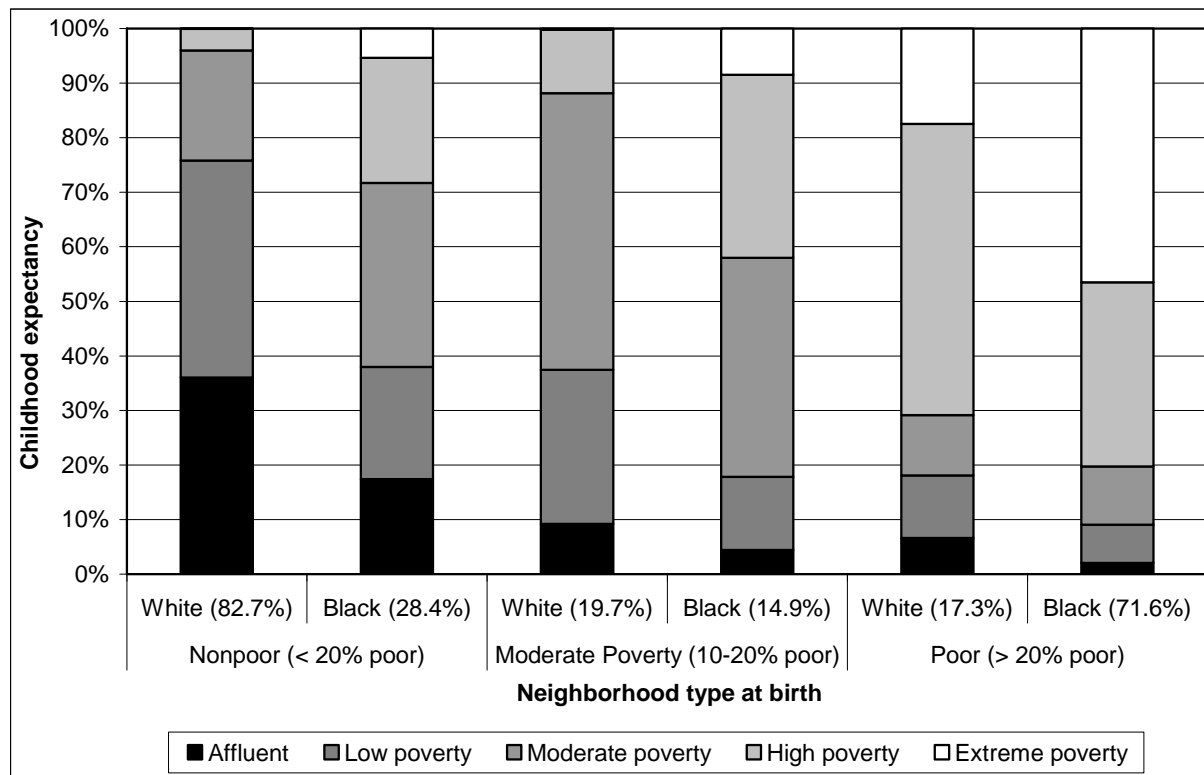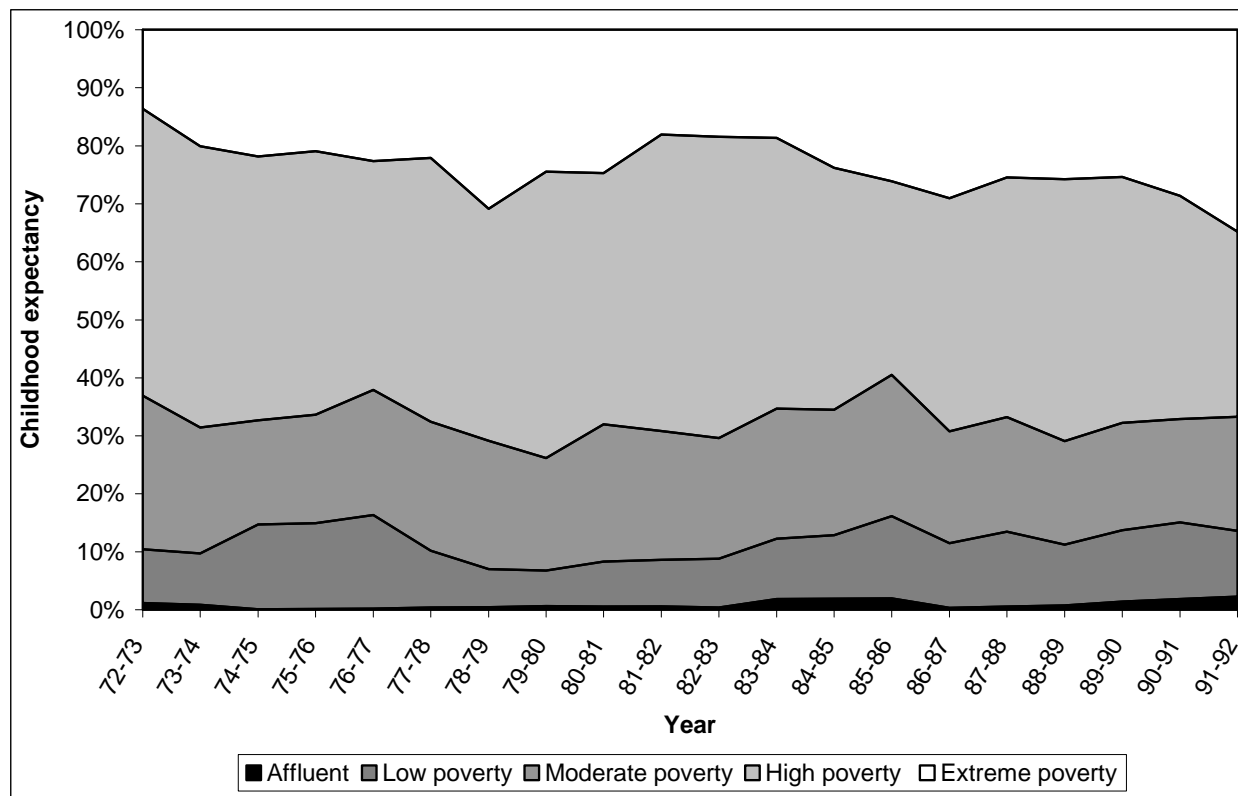
**Figure 2.  Childhood Expectancy in 5 Neighborhood Types, by Neighborhood Status at Birth: PSID Children, 1990 to 1993**

*Note* : Figures from a synthetic birth cohort estimated for the 1990 to 1993 period.
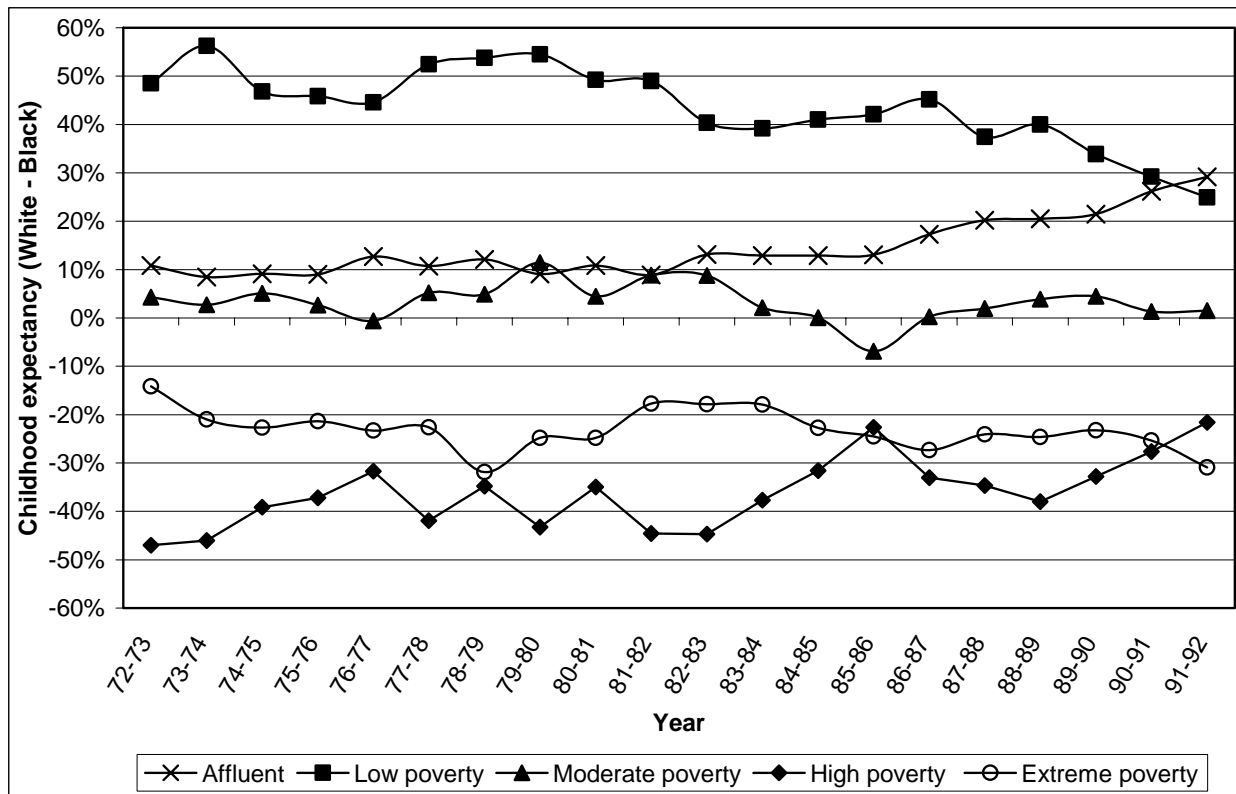
**Figure 3.** **Childhood Expectancy in 5 Neighborhood Types: White PSID Children, 1972 to 1992**
*Note* : Figures are three-year moving averages for synthetic birth cohorts estimated from period multi-state life tables.

**Figure 4.** **Childhood Expectancy in 5 Neighborhood Types: Black PSID Children, 1972 to 1992**
*Note* : Figures are three-year moving averages for synthetic birth cohorts estimated from period multi-state life tables.

**Figure 5.**   **Racial Gap (White minus Black) in Childhood Expectancy in 5 Neighborhood Types: PSID Children, 1972 to 1992**

*Note* : Trend lines derived from White minus Black differences in three-year moving averages, for synthetic birth cohorts estimated from period multi-state life tables.