# NEIGHBORHOODS

## AND THE

# BLACK-WHITE MOBILITY GAP

## BY PATRICK SHARKEY

ECONOMIC
MOBILITY
PROJECT

*An Initiative of The Pew Charitable Trusts*

## ACKNOWLEDGEMENTS

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E X E C U T I V E   S U M M A R Y

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One of the most powerful findings of the Economic Mobility Project's research to date has been the striking mobility gap between blacks and whites in America. This report explores one potentially important factor behind the black-white mobility gap: the impact of neighborhood poverty rates experienced during childhood. Using the Panel Study of Income Dynamics (PSID), the report focuses on blacks and whites born from 1955-1970, following them from childhood into adulthood. The first section of the paper investigates relative intergenerational mobility; whether neighborhood poverty in childhood impacts the ability of both black and white adults to move up or down the income ladder relative to the position their parents held. The second section investigates whether changes in neighborhood poverty rates experienced by black children affected their adult incomes, earnings, and wealth. Finally, the third section provides an overview of the possible policy implications of the results.

**EXPERIENCING HIGH NEIGHBORHOOD POVERTY THROUGHOUT CHILDHOOD STRONGLY INCREASES THE RISK OF FALLING DOWN THE INCOME LADDER.**

- For children whose family income is in the top three quintiles, spending childhood in a high-poverty neighborhood versus a low-poverty neighborhood (say, experiencing a poverty rate of 25 percent compared to a rate of 5 percent) raises the chances of downward mobility by 52 percent.

**ONLY A VERY SMALL PERCENTAGE OF WHITE CHILDREN LIVE IN HIGH-POVERTY NEIGHBORHOODS THROUGHOUT CHILDHOOD WHILE A MAJORITY OF BLACK CHILDREN DO—A PATTERN THAT HASN'T CHANGED IN THIRTY YEARS.**

- Over the course of childhood, two out of three black children (66 percent) born from 1985 through 2000 were raised in neighborhoods with at least a 20 percent poverty rate, compared to just 6 percent of white children.

- Among children born from 1955 through 1970, 62 percent of black children were raised in neighborhoods with at least a 20 percent poverty rate, compared to only 4 percent of white children. And, almost half (49 percent) of black

## EXECUTIVE SUMMARY

children with family income in the top three quintiles lived in high-poverty neighborhoods compared to only one percent of white children.

**NEIGHBORHOOD POVERTY EXPLAINS ONE-QUARTER TO ONE-THIRD OF THE BLACK-WHITE GAP IN DOWNWARD MOBILITY.**

• Four in five black children who started in the top three quintiles experienced downward mobility, compared with just two in five white children. Three in five white children who started in the bottom two quintiles experienced upward mobility, versus just one in four black children.

• If black and white children had grown up in neighborhoods with similar poverty rates (i.e., if whites had grown up where blacks did or blacks had grown up where whites did), the gap in downward mobility between them would be smaller by one-fourth to one-third.

• Neighborhood poverty alone accounts for a greater portion of the black-white downward mobility gap than the effects of parental education, occupation, labor force participation, and a range of other family characteristics combined.

**THE REPORT'S ANALYSIS ALSO SUGGESTS THAT BLACK CHILDREN WHO EXPERIENCE A REDUCTION IN THEIR NEIGHBORHOOD'S POVERTY RATE HAVE GREATER ECONOMIC SUCCESS IN ADULTHOOD THAN BLACK CHILDREN WHO EXPERIENCE POVERTY RATES THAT INCREASE OR ARE STABLE.**

• Black children who lived in neighborhoods that saw a decline in poverty of 10 percentage points in the 1980s had annual adult incomes almost $7,000 greater than those who grew up in neighborhoods where the poverty rate was stable.

**REDUCING THE CONCENTRATION OF POVERTY IN THEIR NEIGHBORHOODS COULD STRONGLY IMPACT CHILDREN'S ECONOMIC MOBILITY.**

• These data suggest that public policy efforts which focus on investing in disadvantaged neighborhoods and reducing the concentration of poverty could enhance upward economic mobility for the children in such neighborhoods.

*By forging a broad and nonpartisan agreement on the facts, figures and trends in mobility, the Economic Mobility Project is generating an active policy debate about how best to improve economic opportunity in the United States and to ensure that the American Dream is kept alive for generations that follow.*

# NEIGHBORHOODS
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## INTRODUCTION

In 1968 sociologist Otis Dudley Duncan imagined what a future American society would look like if all forms of racial discrimination were eliminated, so that the only differences in the life chances of black and white children stemmed from the lingering influence of inequalities that existed in the previous generation. Duncan's research indicated that family background factors, such as parents' education and occupations, did not explain black-white inequality, leaving racial discrimination as the likely culprit. If discrimination were eliminated, he reasoned, racial inequality would wither away over time. He wrote: "if we could eliminate the inheritance of race, in the sense of the exposure to discrimination experienced by Negroes, the inheritance of poverty in this group would take care of itself."[1] Given that lawful discrimination was nearing an end, one might have guessed, at the time, that Duncan's vision would come to fruition with these societal changes.

Four decades later, the evidence suggests it has not. Recent studies for the Economic Mobility Project and by others have updated Duncan's work by examining race and intergenerational economic mobility since 1968, tracking the economic fortunes of children who were raised during or after the civil rights era.[2] Analyzing the economic status of consecutive generations of family members, these studies have found that blacks today have much lower family income than do whites, even after accounting for their parents' income. Put differently, even comparing black and white children raised in similar families, black children typically have lower incomes as adults. Moreover, blacks continue to be much less likely than whites to rise out of the bottom of the income distribution.

This research represents an important update of Duncan's work and takes a major step toward documenting the continuing racial gap in economic mobility. But it leaves unanswered the question of why, in the generation following the civil rights movement, the opportunity for blacks and whites to advance in economic status from one generation

to the next remains unequal. This report is designed to help answer this question. It does so by focusing attention on another dimension of racial inequality that has persisted even in the post-civil rights era: inequality in children's neighborhood environments. In particular, this report assesses whether neighborhood poverty experienced during childhood helps to explain the "mobility gap" between black and white Americans that recent studies have uncovered; that is, the difference in adult economic status between whites and blacks from families with similar income.[3] It also develops a new approach to examine whether declines in neighborhood poverty that occur during childhood and young adulthood have an impact on the adult economic fortunes of blacks. The report focuses on blacks and whites because nationally representative datasets that include multiple generations do not have sufficient samples of other ethnic groups to examine separately.

Part I of the report shows that childhood neighborhood poverty appears to play an important role in explaining racial gaps in economic mobility—and particularly *downward* economic mobility—although much of the overall black–white gap remains even after considering not just family characteristics but the neighborhoods of black and white children. Part II of the report offers a more hopeful set of findings. It shows that when the degree of poverty in black children's environments declines over time, their economic fortunes as adults improve substantially. These findings provide compelling evidence that investments in children's environments have the potential to facilitate economic mobility among blacks living in the most disadvantaged neighborhoods. Accordingly, Part III discusses the policy implications of these findings.

### WHY NEIGHBORHOODS?

A common theme in many of the classic sociological studies of urban poverty is that the persistence of poverty from one generation to the next is closely related to the lack of opportunities found in poor, racially segregated urban neighborhoods.[4] The implication of this research is that barriers to economic mobility may be rooted in the unique economic and social milieu of the poorest urban neighborhoods.

Why might this be so? To begin to answer this question, it is first necessary to consider the ways in which various aspects of social life are organized by geography, including schools, government and electoral districts, and other local institutions. The fact that public schools are typically organized and partially funded by residential districts, for instance, means that the quality of educational opportunities depends directly on where one lives. Research has demonstrated that residents of poor and segregated neighborhoods have less political influence than residents of neighborhoods with more racial and economic diversity,[5] and a great deal of evidence suggests that the spatial locations

of jobs and industry have important influences on the likelihood that individuals will be able to find and maintain steady employment.[6] In a similar way, the quality of public amenities like parks and recreation centers, the effectiveness of institutions such as the police, and the degree of exposure to violence, gangs, toxic soil and polluted air all depend directly on where one lives. In these and other ways, the spatial configurations of social phenomena, economic opportunities, healthy and unhealthy environments, and public institutions have important implications for the life chances of individuals.

This idea has been reinvigorated in a vast literature that draws on William Julius Wilson's focus on joblessness and social isolation in urban ghettos, as well as Mary Pattillo's extension of Wilson's ideas beyond the boundaries of the ghetto and into the neighborhoods of middle-class blacks.[7] Pattillo's ethnographic work on black middle-class neighborhoods demonstrates how spatial proximity to extremely poor, disadvantaged areas of Chicago, and the rigid racial segregation of the city as a whole, combine to make it difficult for middle-class blacks to create separation from the problems of the ghetto, including poor-performing schools, gangs, drug markets, and violence. This research is reinforced by numerous studies showing that blacks and whites of similar economic status live in dramatically different residential environments, with blacks living in areas with higher crime rates, lower quality schools, higher poverty rates, lower property values, and severe racial segregation.[8] Even if blacks are able to make gains in economic or social status in one generation, they often remain in social environments that are disadvantaged across multiple dimensions, and that may make it more difficult to transmit advantages to the next generation.

These are compelling ideas, but what has the evidence revealed about the relationship between childhood neighborhood environments and economic mobility? Studies have used many different approaches to assess this relationship, producing decidedly mixed findings. Most studies using observational data have found an association between measures of neighborhood economic status during childhood and adult economic status, although the association varies widely depending on the specific neighborhood measures used in the analysis, the outcome under study, and the sub-populations examined.[9]

The literature from experimental and quasi-experimental residential mobility programs has produced similarly mixed results. Research from the Gautreaux mobility program in Chicago is most relevant to the current analysis, as this was a program that began in the 1970s and that has followed children from participating families and tracked their outcomes as they move into adulthood. Gautreaux was a court-ordered desegregation program in which low-income residents (most of whom were in Chicago public housing) were provided housing subsidies and other forms of assistance to move out of segregated neighborhoods and into more racially and economically diverse neighborhoods across

the metropolitan area.[10] Although participants were not randomly selected, apartments were offered to individuals who volunteered for the program based on their position on the waitlist, meaning families did not choose where they would live, thus making it possible to compare the outcomes of participants who ended up in different types of neighborhoods. Research from Gautreaux finds that children in families that moved to suburban neighborhoods had higher rates of high school completion, college attendance, and labor force participation in early adulthood than children who remained within the city.[11] The central problem with Gautreaux is that it was not a true experiment, and there is some evidence that variation in the neighborhood destinations may reflect important unmeasured characteristics of participants.[12]

The Moving to Opportunity program is a carefully designed experiment implemented in the 1990s in five cities. Because it has been running for a much shorter duration it is not yet possible to estimate the effects of a change in children's neighborhood environments on their outcomes in adulthood. So far, however, the results from the Moving to Opportunity Program appear very different from those of Gautreaux. Several years after the program started, there have been no effects on economic outcomes among the adults who moved, and the effects on children's outcomes appear to vary by gender, with girls showing positive effects across several developmental outcomes and boys showing no effects or *negative* effects.[13]

While all of these studies address the question of whether neighborhood characteristics influence adult outcomes, few focus particular attention on the role of race in processes of economic mobility. When one considers the dramatic racial gaps in economic mobility demonstrated in previous research by the Economic Mobility Project, as well as the racial gaps in exposure to neighborhood poverty discussed below, there appears good reason to explore the connections between race, exposure to different types of neighborhoods, and patterns of economic mobility.

## PART I: NEIGHBORHOOD POVERTY AND THE RACIAL GAP IN RELATIVE ECONOMIC MOBILITY

This report examines these connections using the same source of data that is used for much of the research on intergenerational mobility in the United States, the Panel Study of Income Dynamics (PSID). The PSID is unique because it has followed families over long periods of time, allowing researchers to track the economic status of children during their childhood and into adulthood.

The report examines intergenerational relative income mobility among a sample of black and white children who were born from 1955 through 1970 and who are observed in the PSID sample for at least five years, both as children (under the age of 18) and then again as adults (at least 26 years old and head of the household or spouse of the head).[14] Family income in the parent generation—as well as neighborhood poverty rates—are measured as the average over all years in which the household head is at least 26 years old and the child is under the age of 18. Family income in the second generation, when the children reach adulthood, is measured as the total family income averaged over all years in which the child is a household head or the spouse of a household head and is at least 26 years old. All family incomes are converted to 2008 dollars.[15] To examine relative mobility, the sample is ranked by the level of family income in each generation and divided into equally sized fifths, or quintiles. Movement from one quintile to another—for instance, from the lowest fifth of the income distribution to the second lowest fifth—defines intergenerational mobility.

A particularly useful feature of the PSID for the purposes of this study is the availability of a restricted-use "geocode" file that includes identifiers for the census tract in which sample members have lived in each year of the survey from its beginnings in 1968 through 2005. Census tracts are areas designed by the Census Bureau to be relatively homogenous in terms of demographic and economic characteristics. They are the most commonly used boundaries for quantitative studies of neighborhoods and they contain, on average, roughly 4,000 residents. In cities, census tracts can cover just a few blocks, while in rural areas they can encompass entire towns, but the results reported were similar when rural census tracts were excluded. While there are many characteristics of neighborhoods that may be important to economic mobility, this report focuses on the most basic and commonly used measure of neighborhood economic status, the neighborhood poverty rate.[16]

> **IN BOTH PERIODS, BEING RAISED IN A HIGH-POVERTY NEIGHBORHOOD IS EXTREMELY RARE FOR WHITES, BUT IS THE NORM FOR BLACKS.**

To provide a sense of the degree of racial inequality in childhood neighborhood conditions, Figure 1 shows average neighborhood poverty levels experienced over childhood for black and white children born during two distinct periods: first, children born from 1955 through 1970, the group that composes the sample for the main analysis; and second, children born thirty years later, from 1985 through 2000.

Among children born from 1955 through 1970, only 4 percent of whites were raised in neighborhoods with at least 20 percent poverty, compared to 62 percent of blacks. Three out of four white children were raised in neighborhoods with less than 10 percent poverty, compared to just 9 percent of blacks. Even more astonishingly, essentially no white children were raised in neighborhoods with at least 30 percent poverty, but three in ten blacks were. And more shockingly still, almost half (49 percent) of black children with family income in the top three quintiles lived in neighborhoods with at least 20 percent poverty, compared to only one percent of white children in those quintiles. These figures reveal that black children born from the mid 1950s to 1970 were surrounded by poverty to a degree that was virtually nonexistent for whites.

This degree of racial inequality is not a remnant of the past. Two out of three black children born from 1985 through 2000 have been raised in neighborhoods with at least 20 percent poverty, compared to just 6 percent of whites. Only one out of ten blacks

| FIGURE 1 | **Average Neighborhood Poverty During Childhood Among Black and White Children Born 1955–1970 and 1985–2000** |



Legend:
- 30% OR MORE POOR
- 20–29.99% POOR
- 10–19.99% POOR
- LESS THAN 10% POOR

Y-axis: Percent of Children Who Grew Up in Each Type of Neighborhood

BLACK / WHITE — BORN 1955–1970
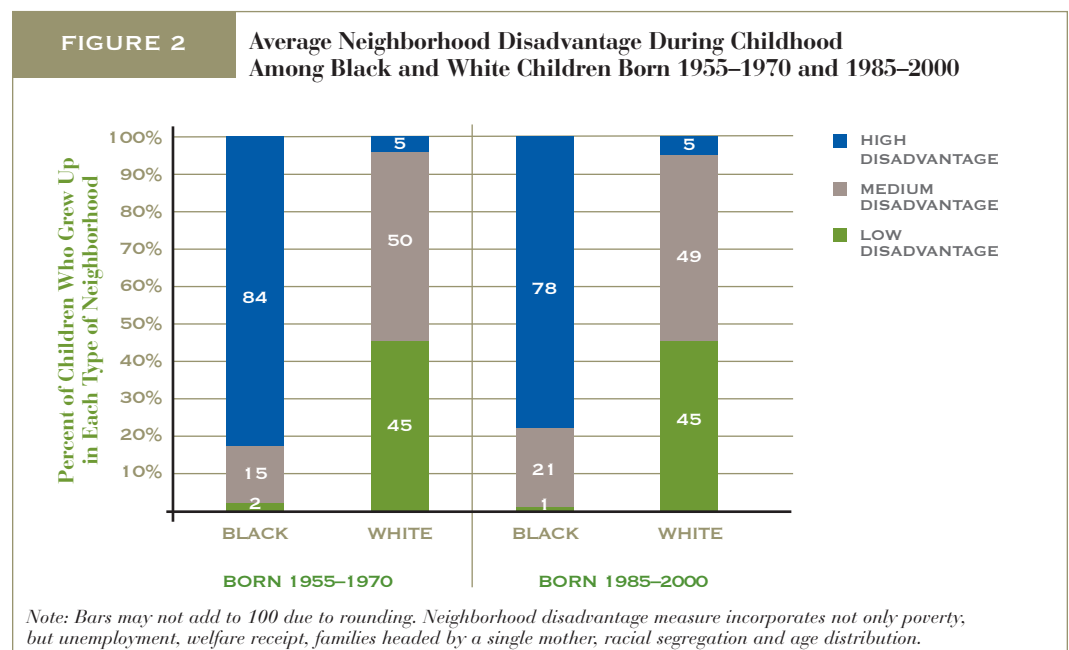BLACK / WHITE — BORN 1985–2000
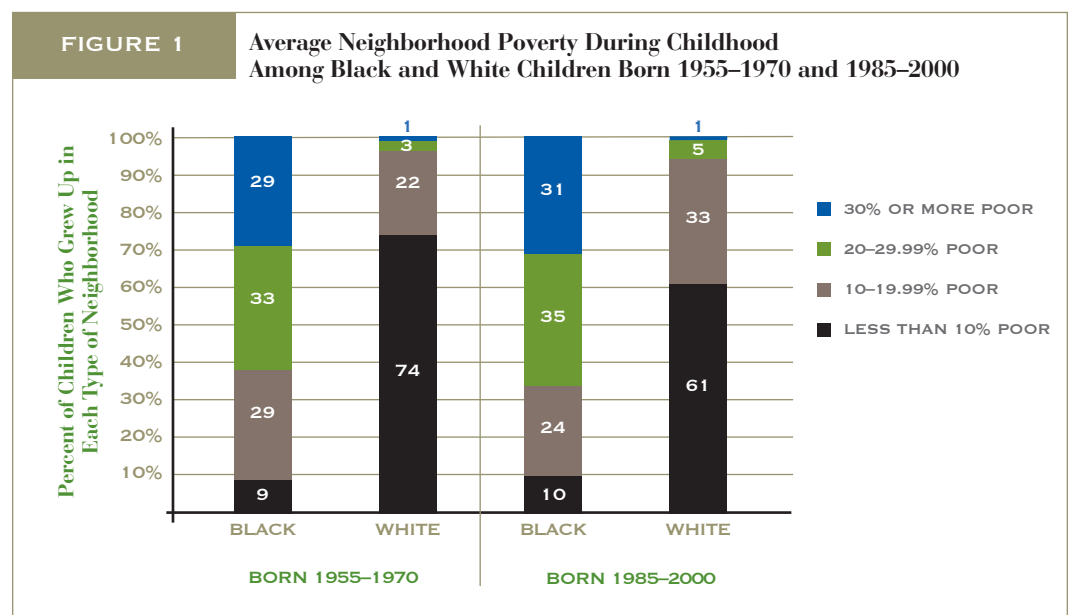
in the current generation has been raised in a neighborhood with less than 10 percent poverty, compared to six out of ten whites. Even today, thirty percent of black children experience a level of neighborhood poverty—a rate of 30 percent or more—unknown among white children.

> **BY BROADER MEASURES OF NEIGHBORHOOD DISADVANTAGE,**
> **IT IS IMPOSSIBLE TO COMPARE BLACK AND WHITE CHILDREN**
> **BECAUSE THEY LIVE IN SUCH DIFFERENT COMMUNITIES.**

As stark as the racial discrepancies are in Figure 1, these figures actually *understate* the extent to which blacks and whites inhabit different neighborhoods. Previous research has used a measure of neighborhood disadvantage that incorporates not only poverty rates, but unemployment rates, rates of welfare receipt and families headed by a single mother, levels of racial segregation, and the age distribution in the neighborhood to capture the multiple dimensions of disadvantage that may characterize a neighborhood.[17] Figure 2 shows that using this more comprehensive measure broken down into categories representing low, medium, and high disadvantage, 84 percent of black children born from 1955 through 1970 were raised in "high" disadvantage neighborhoods, compared to just 5 percent of whites. Only 2 percent of blacks were raised in "low" disadvantage neighborhoods, compared to 45 percent of whites. The figures for contemporary children are similar. By this broader measure, blacks and whites inhabit such different neighborhoods that it is not possible to compare the economic outcomes of black and white children who grow up in similarly disadvantaged neighborhoods. However, there is enough overlap in the childhood neighborhood poverty rates of blacks and whites to consider the effect of concentrated poverty on economic mobility.

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**FIGURE 2** | **Average Neighborhood Disadvantage During Childhood Among Black and White Children Born 1955–1970 and 1985–2000**



*Note: Bars may not add to 100 due to rounding. Neighborhood disadvantage measure incorporates not only poverty, but unemployment, welfare receipt, families headed by a single mother, racial segregation and age distribution.*

**BLACKS EXPERIENCE SIGNIFICANTLY LOWER RATES OF UPWARD RELATIVE MOBILITY AND HIGHER RATES OF DOWNWARD RELATIVE MOBILITY THAN WHITES, EVEN WHEN THEY GROW UP IN NEIGHBORHOODS WITH SIMILAR POVERTY RATES.**

Figure 3 shows the prevalence of upward and downward economic mobility among blacks and whites, focusing on upward mobility from the bottom of the distribution (that is, among children raised in the lowest two quintiles of the income distribution) and on downward mobility from the top of the distribution (that is, among children raised in the highest three quintiles of the income distribution).[18]

The upper half of Figure 3 displays the striking black-white gaps in upward mobility. Whereas 59 percent of whites raised in the lowest two quintiles are upwardly mobile from one generation to the next, only 25 percent of blacks experience upward mobility. The prevalence of upward mobility for blacks is substantially lower than for whites even within low-, medium-, and high-poverty neighborhoods. Note that while tempting, it is inappropriate to draw conclusions from Figure 3 about how rising neighborhood poverty affects upward mobility for whites or for blacks. Given how few blacks there are in the data in low-poverty neighborhoods and how few whites there are in high-poverty neighborhoods, the differences in upward mobility between neighborhood types are not statistically significant.[19]

Turning to downward mobility from the top three quintiles of the income distribution, the lower half of Figure 3 shows that, overall, 78 percent of blacks move downward from the top three quintiles of the income distribution from one generation to the next, compared to 43 percent of whites. Examining downward mobility within neighborhood poverty categories, there are extremely high rates of downward mobility among blacks raised in neighborhoods with more than 10 percent poverty and more than 20 percent poverty, while white rates of downward mobility are similar across the different types of neighborhoods. Again, certain of these estimates are based on small samples and thus should be treated with caution. In particular, all but one of the comparisons between neighborhood types fail to reach statistical significance.[20] Overall, because of the uncertainty in the estimates, the patterns do not provide a precise answer as to whether neighborhood poverty plays a substantial role in explaining black-white gaps in upward and downward mobility, nor do they attempt to account for other factors that could be driving the results. The next set of analyses address these issues.

**FIGURE 3**    **Rates of Upward and Downward Mobility by Race and Childhood Neighborhood Poverty Level, Among Children Born 1955–1970**
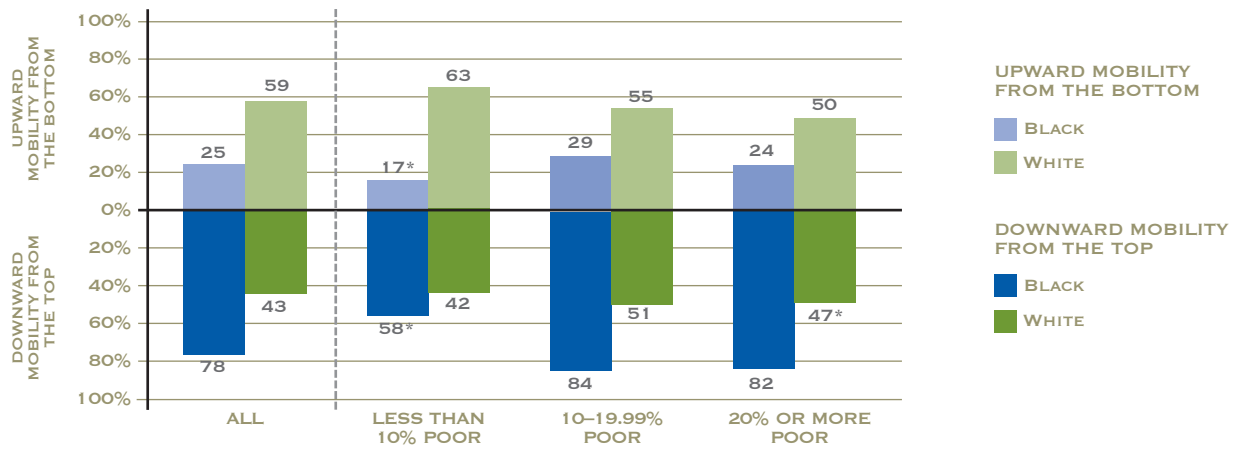


Notes: * = small number of cases. Upward mobility from the bottom is the percentage of people with parents in the bottom two quintiles who move up at least one quintile. Downward mobility from the top is the percentage of people with parents in the top three quintiles who move down at least one quintile. No differences between neighborhood types are statistically significant, except for the difference in downward mobility for whites in low- versus medium-poverty neighborhoods.
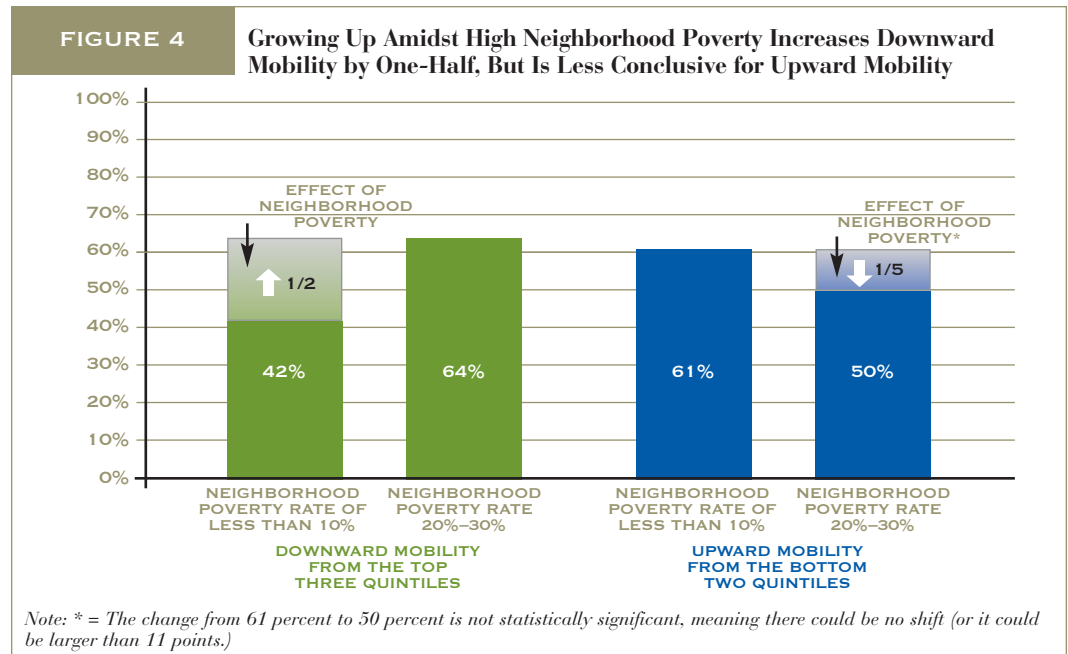
> GROWING UP SURROUNDED BY NEIGHBORHOOD POVERTY
> STRONGLY INCREASES THE RISK OF FALLING DOWN THE INCOME
> LADDER AND MAY REDUCE THE LIKELIHOOD OF UPWARD MOBILITY.

The results in Figure 3 look at only three levels of neighborhood poverty, and because those three neighborhood types are examined separately (and separately by race), it is difficult to draw reliable conclusions about how mobility is affected by neighborhood poverty. Figure 4 shows results from multivariate models that attempt to overcome the imprecision in Figure 3 by looking at all neighborhoods and all people together.

Figure 4 illustrates how the risk of downward mobility from the top and the chance of upward mobility from the bottom are affected by neighborhood poverty. In neighborhoods where the poverty rate was under 10 percent, 42 percent of children (regardless of race) in the top three quintiles were downwardly mobile. Had the neighborhood poverty rate been 20 to 30 percent instead, 64 percent would have fallen down a quintile or more. In other words, an increase in neighborhood poverty from under 10 percent to 20 to 30 percent increases the likelihood of downward mobility by 52 percent.

Turning to upward mobility, in neighborhoods where less than 10 percent of the population was poor, the typical child who started in the bottom two income quintiles had a 61 percent chance of moving up one quintile in adulthood. If those children had grown up in a neighborhood with a poverty rate of 20 to 30 percent instead, only 50 percent would have been upwardly mobile. However, once again, the effect is not estimated precisely enough to be confident that it is greater than zero.

**FIGURE 4** — Growing Up Amidst High Neighborhood Poverty Increases Downward Mobility by One-Half, But Is Less Conclusive for Upward Mobility

*Note: * = The change from 61 percent to 50 percent is not statistically significant, meaning there could be no shift (or it could be larger than 11 points.)*
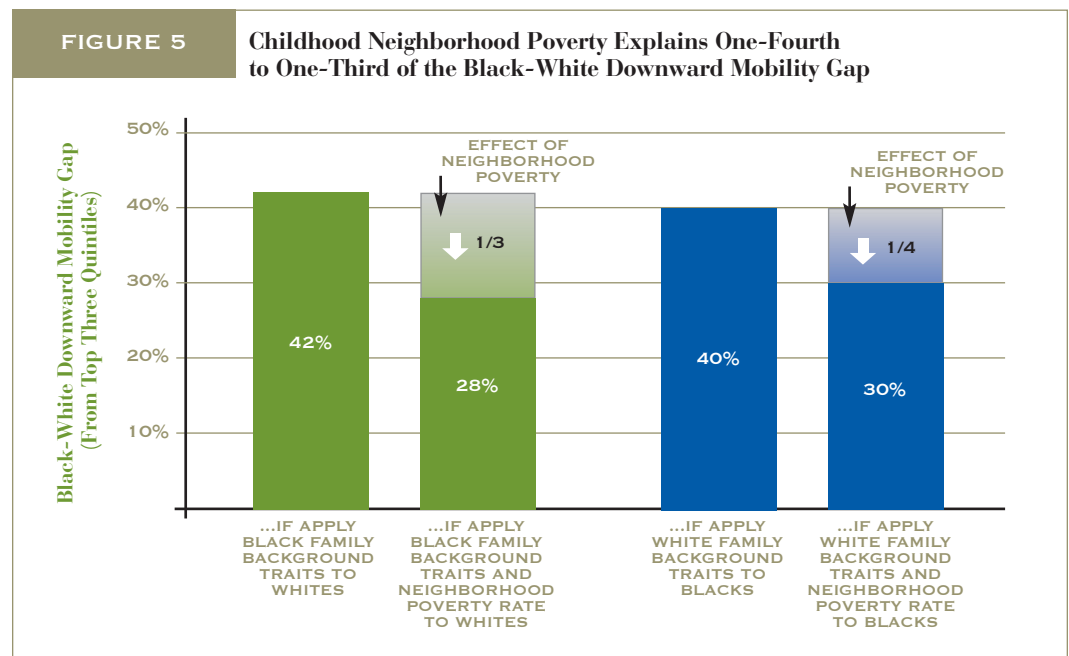
Note that these two neighborhood poverty rates—under 10 percent and 20 to 30 percent—reflect the magnitude of the different neighborhood environments experienced by whites and blacks on average. The next set of analyses looks at how neighborhood poverty rates affect mobility gaps between blacks and whites.

**NEIGHBORHOOD POVERTY RATES IN CHILDHOOD EXPLAIN A QUARTER TO A THIRD OF THE RACIAL GAP IN *DOWNWARD* MOBILITY.**

Figure 5 shows how the risk of downward mobility from the top three quintiles differs for blacks compared to whites when their family background characteristics are statistically equalized, and how the risk changes when their neighborhood poverty rates are also equalized.[21] The first bar indicates what whites' downward mobility rate would be if their family background characteristics resembled those of blacks in the top three quintiles. These dimensions of family background include parents' income, education, family structure, occupations, and even attitudes toward their own and their children's future.[22] Equalizing blacks and whites on these measures leaves a 42-point downward mobility gap between them.

The second bar shows that if whites in the top three quintiles are also given the same neighborhood poverty rates as blacks in the top three quintiles, the black-white mobility gap would decline to 28 percent. The change between the first and second bars is the implied effect of neighborhood poverty on the black-white gap in downward mobility—the gap is reduced by 14 percentage points, which is 33 percent of the 42-point gap before equalizing neighborhood poverty.
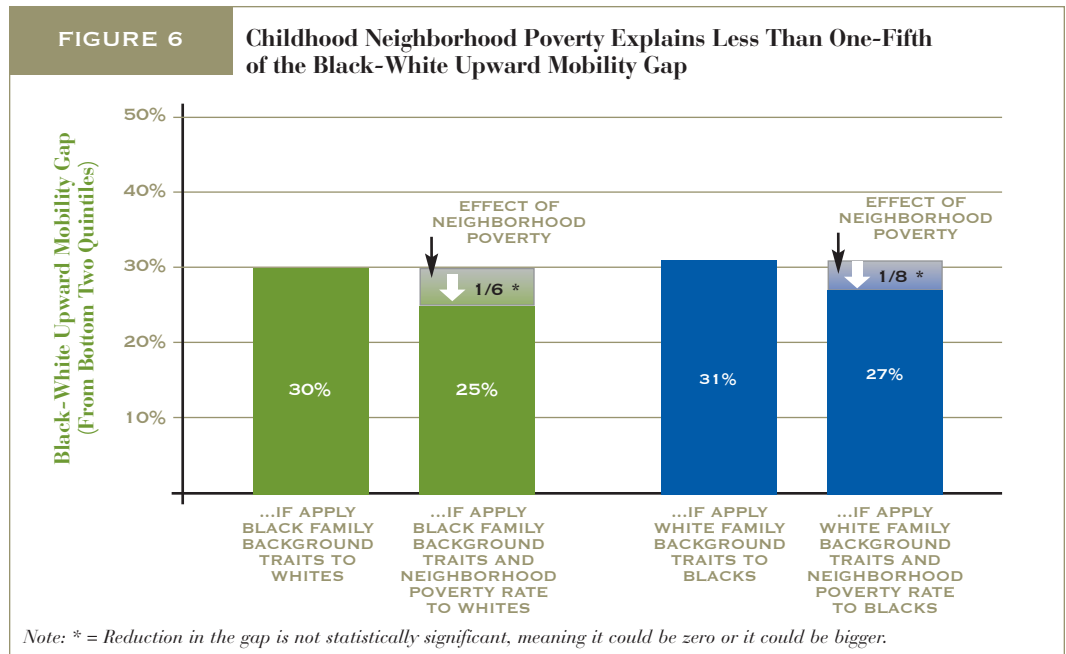
The two rightmost bars in Figure 5 repeat the exercise, except this time applying white family background characteristics and neighborhood poverty rates to blacks. The results are similar, with neighborhood poverty reducing the racial gap in downward mobility by 10 points, or 25 percent. These effects of neighborhood poverty on the downward mobility gap between blacks and whites are sizable, and statistically significant.

| FIGURE 5 | **Childhood Neighborhood Poverty Explains One-Fourth to One-Third of the Black-White Downward Mobility Gap** |
| --- | --- |

**Black-White Downward Mobility Gap (From Top Three Quintiles)**

- ...IF APPLY BLACK FAMILY BACKGROUND TRAITS TO WHITES: 42%
- ...IF APPLY BLACK FAMILY BACKGROUND TRAITS AND NEIGHBORHOOD POVERTY RATE TO WHITES: 28% (EFFECT OF NEIGHBORHOOD POVERTY: 1/3)
- ...IF APPLY WHITE FAMILY BACKGROUND TRAITS TO BLACKS: 40%
- ...IF APPLY WHITE FAMILY BACKGROUND TRAITS AND NEIGHBORHOOD POVERTY RATE TO BLACKS: 30% (EFFECT OF NEIGHBORHOOD POVERTY: 1/4)

Buttressing the impression given by Figure 5, the results of these analyses indicate that statistically equalizing the neighborhood poverty rates of blacks and whites does more to narrow the downward mobility gap than equalizing their family background characteristics. Furthermore, equalizing their family background characteristics hardly narrows the gap any further if neighborhood poverty rates are already equalized.

## NEIGHBORHOOD POVERTY RATES IN CHILDHOOD EXPLAIN LITTLE—IF ANY— OF THE RACIAL GAP IN UPWARD MOBILITY.

Mirroring the analysis in Figure 5, the first bar in Figure 6 shows there is a 30-point upward mobility gap after giving white children in the bottom two income quintiles the family background characteristics of black children in those quintiles. However, equalizing their neighborhood poverty rates by applying the neighborhood rates experienced by blacks in the bottom two quintiles to whites in those quintiles reduces the gap by 5 percentage points, or one-sixth. If black children were to grow up with white neighborhood poverty rates, it would reduce the racial gap in upward mobility by 4 percentage points, or one-eighth. These effects of neighborhood poverty on the upward mobility gap between blacks and whites are fairly small. In fact, the estimates shown in Figure 6 are once again not statistically significant.

| FIGURE 6 | Childhood Neighborhood Poverty Explains Less Than One-Fifth of the Black-White Upward Mobility Gap |
|---|---|

Black-White Upward Mobility Gap (From Bottom Two Quintiles)

- 50%
- 40%
- 30%
- 20%
- 10%

EFFECT OF NEIGHBORHOOD POVERTY — 1/6 *

EFFECT OF NEIGHBORHOOD POVERTY — 1/8 *

30%  25%  31%  27%

...IF APPLY BLACK FAMILY BACKGROUND TRAITS TO WHITES

...IF APPLY BLACK FAMILY BACKGROUND TRAITS AND NEIGHBORHOOD POVERTY RATE TO WHITES

...IF APPLY WHITE FAMILY BACKGROUND TRAITS TO BLACKS

...IF APPLY WHITE FAMILY BACKGROUND TRAITS AND NEIGHBORHOOD POVERTY RATE TO BLACKS

*Note: * = Reduction in the gap is not statistically significant, meaning it could be zero or it could be bigger.*

The main conclusion from these results is that neighborhood poverty appears to be an important part of the reason why blacks experience more downward relative economic mobility than whites, a finding that is consistent with the idea that the social environments surrounding African Americans may make it difficult for families to preserve their advantaged position in the income distribution and to transmit these advantages to their children. When white families advance in the income distribution they are able to translate this economic advantage into spatial advantage in ways that African Americans are not, by buying into communities that provide quality schools and healthy environments for children.[24] These results suggest that one consequence of this pattern is that middle-class status is particularly precarious for blacks, and downward mobility is more common as a result.

## PART II: DECLINES IN NEIGHBORHOOD POVERTY AND CHILDREN'S ECONOMIC PROSPECTS IN ADULTHOOD

The analyses presented to this point have provided suggestive evidence for the role that racial gaps in childhood neighborhood environments have played in contributing to racial gaps in economic mobility. This evidence does not allow for strong causal claims, however, because it is possible that unobserved characteristics that lead some families to choose to live in poor neighborhoods may also explain divergence in children's adult economic outcomes, a common problem referred to as "selection bias." The remainder of the report describes results using a new analytic method designed specifically to address this problem, and thus to make stronger claims about the causal role that neighborhoods

play in facilitating (or hindering) economic mobility. Because the analysis focuses on the effects of a decline in neighborhood poverty, it is limited to blacks, the group most likely to be positively affected by major transformations of the most disadvantaged urban neighborhoods.

In particular, the analysis examines how children's economic trajectories are affected when the degree of poverty in their neighborhood environment declines over time. The details of the method used to estimate the impact of such changes are available in the Appendix, but the central insight underlying the method is a simple one: although families living in neighborhoods across the United States have a choice about where they would like to live, they often have little choice about how their neighborhood environment will change once they are there. The phenomenon of neighborhood change thus presents an opportunity to understand how a decline in neighborhood poverty might influence children in a way that minimizes the common problem of selection bias found in many studies that attempt to estimate the impact of neighborhoods.

However, neighborhood change does not occur in a random manner—some neighborhoods are more likely than others to deteriorate or to improve quickly, and some individuals are likely better equipped to predict how a neighborhood will change in the future. This means that simply comparing individuals who live in changing neighborhoods to others who live in stable neighborhoods would produce biased results. The analysis deals with this problem by creating matched pairs of individuals in families that have selected virtually identical neighborhoods in which to live, but which experience different trajectories in the years following the matching. Specifically, the matched pairs consist of children who were under fifteen years old in 1980 and who lived in neighborhoods that had equivalent rates of poverty in 1980 and that experienced the same amount of change in the poverty rate in the 1970s.[25] What differs is the change that occurred in the decade after the children are matched. One child in the pair lived in a neighborhood that experienced a decline in poverty over the 1980s, and the other child lived in a neighborhood that experienced no change or an increase in poverty over the same decade.[26]

### THE IMPACT OF NEIGHBORHOOD CHANGE

Using a sample of matched pairs of black children in the PSID, the analysis estimates the impact on adult economic outcomes of living in a neighborhood that experienced a decline in poverty over the 1980s relative to living in a neighborhood that experienced no change or an increase in poverty over the same timeframe.

The analyses consider whether the changes in neighborhood poverty rates experienced by black children between 1980 and 1990 affected their adult incomes, earnings, and

wealth. All three indicators of economic resources are measured as the average over all survey years from 1990 through 2005 in which the individual is observed as a household head or the spouse of a household head, and the averages are converted to 2008 dollars.[27]

To provide some context, Figure 7 describes how the neighborhoods of blacks changed over the 1980s for those living in neighborhoods where poverty declined (shown in blue bars), and where it did not decline (shown in green bars). The first thing to notice is that the matched pairs of children lived in virtually identical neighborhoods in 1980. Black children in neighborhoods that became less poor lived in neighborhoods that were 68 percent black, 29 percent white, and 4 percent Latino in 1980, with an average poverty rate of 25 percent and an average employment rate of 52 percent. The matched children in neighborhoods that did not experience a decline in poverty lived in neighborhoods that were 67 percent black, 30 percent white and 4 percent Latino in 1980, with an average poverty rate of 25 percent and an average employment rate of 52 percent.

By 1990, however, the poverty rate in the first group of neighborhoods had dropped to 21 percent and the employment rate had risen to 57 percent, while the racial and ethnic mix had changed only slightly, with lower numbers of whites and higher numbers

| FIGURE 7 | Blacks' Neighborhood Characteristics Where Poverty Did and Did Not Decline Between 1980 and 1990 |
|---|---|



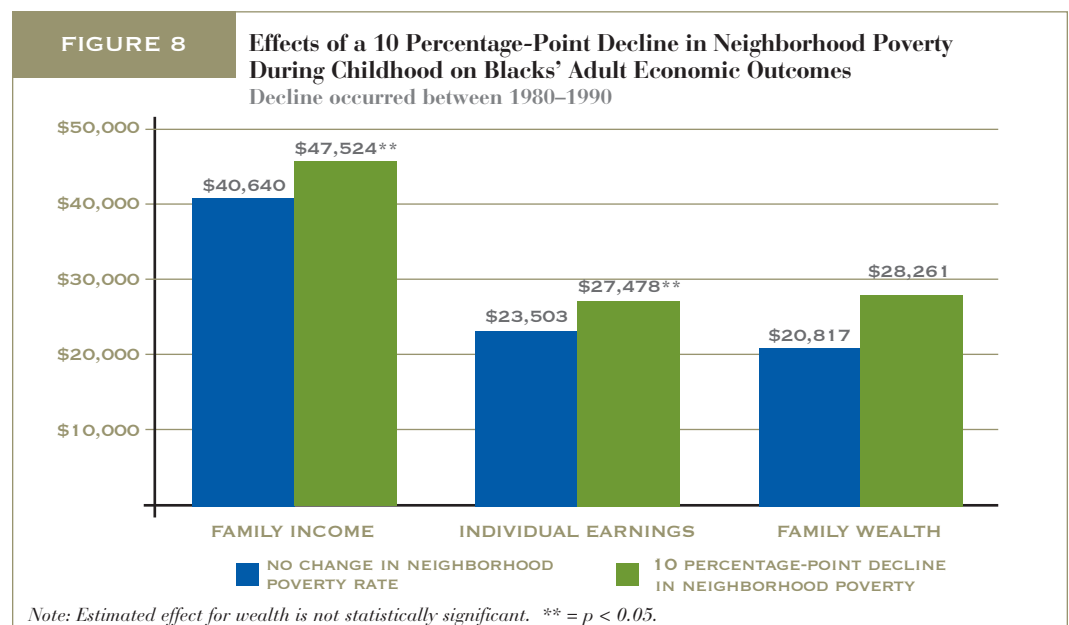POVERTY DECLINED        POVERTY DID NOT DECLINE
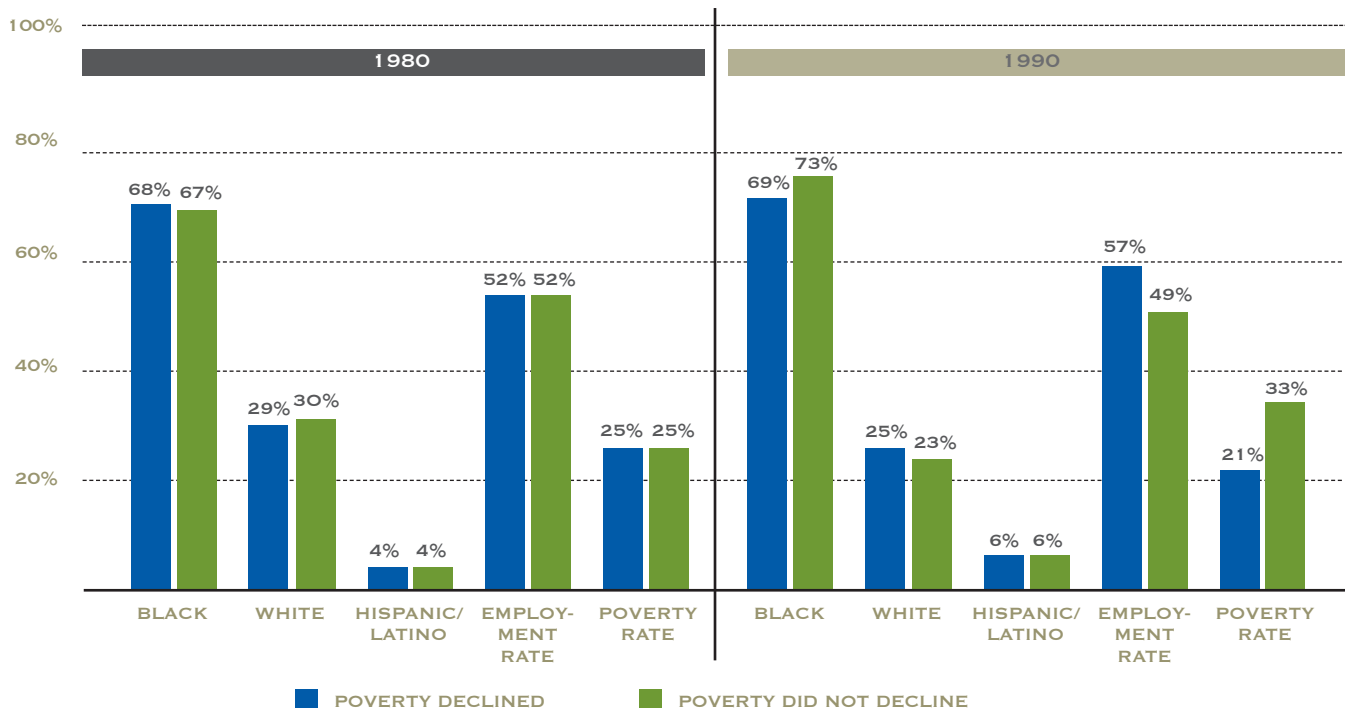
of Latinos. In contrast, the poverty rate in the second group of neighborhoods had risen in 1990 to 33 percent, the employment rate had dropped to 49 percent, and a larger share of whites had left these neighborhoods, making them slightly more racially segregated than before. Thus, the matched pairs of children began the 1980s in neighborhoods that looked identical, but ended the 1980s in neighborhoods that looked quite different in terms of poverty and labor force participation.

### DECLINES IN NEIGHBORHOOD POVERTY RATES INCREASED BLACK INCOME AND EARNINGS AND MAY HAVE INCREASED BLACK WEALTH.

The columns shaded in blue in Figure 8 show the estimated average adult economic status for children who lived in neighborhoods that experienced no change in neighborhood poverty over the 1980s, and the green columns show the estimated average adult economic status for children who lived in neighborhoods that experienced a 10 percentage-point decline in poverty over the same decade, which is similar to the difference in the average poverty rates of the two groups of neighborhoods in 1990 shown in Figure 7.

To capture the impact of such a decline in poverty three dimensions of adult economic status are examined: family income, individual earnings, and household wealth. In each case, a decline in neighborhood poverty experienced over childhood and young adulthood had a substantial positive impact on blacks' adult economic outcomes. Children living in neighborhoods that experienced a 10 percentage-point decline in poverty had almost

| FIGURE 8 | Effects of a 10 Percentage-Point Decline in Neighborhood Poverty During Childhood on Blacks' Adult Economic Outcomes |
|---|---|

**Decline occurred between 1980–1990**



| | No change in neighborhood poverty rate | 10 percentage-point decline in neighborhood poverty |
|---|---|---|
| FAMILY INCOME | $40,640 | $47,524** |
| INDIVIDUAL EARNINGS | $23,503 | $27,478** |
| FAMILY WEALTH | $20,817 | $28,261 |

*Note: Estimated effect for wealth is not statistically significant.  ** = p < 0.05.*

$7,000 more in family income as adults and almost $4,000 more in individual earnings when compared with children whose neighborhoods did not change. The magnitude of the estimated effect on wealth is similarly large, but is estimated with less precision and is not statistically significant.

### THE ECONOMIC BENEFITS OF LIVING IN LOWER-POVERTY NEIGHBORHOODS ARE NOT ATTRIBUTABLE TO EDUCATIONAL ATTAINMENT, MARITAL STATUS, OR PARENT'S ECONOMIC STATUS.

One important limitation of this analysis is that it does not reveal exactly what brought about the economic benefits experienced by children in changing neighborhoods. A change in the neighborhood poverty rate could be induced by a shock to the local demand for labor, such as the shutdown of a factory or the introduction of a postal office, that raises or reduces the level of poverty in the aggregate. By necessity, this analysis lumps these types of changes together, along with other changes in the composition of neighborhoods that may lead to a reduction in the neighborhood poverty rate. As a result, the analysis can examine only whether a decline in neighborhood poverty, arising from any number of possible sources, affects children's economic trajectories.

It is possible to provide some further exploration of why a decline in poverty leads to economic benefits, however, by considering the extent to which outcomes other than those in Figure 8 are affected by such a decline. Further analysis suggests, first, that the beneficial effects on economic outcomes are not attributable to children's educational attainment or their marital status as adults. Children in neighborhoods where poverty declines do not have higher levels of educational attainment than their matched counterparts in neighborhoods that do not experience a decline in poverty, and they are no more likely to be married as adults. Instead, all of the benefits of living in a neighborhood where poverty declines are related to labor market activity (such as occupational status, annual hours worked, and welfare receipt), suggesting that the most important benefits of living in a neighborhood where poverty declines may be attributable to improved labor market conditions as children enter adulthood.

An alternative possibility is that the change in the neighborhood environment may have a positive effect on the economic circumstances of parents, which then leads to improved outcomes for children. It is possible to test this by including measures of parental economic status in the specifications and examining whether they explain any of the effects found for children's outcomes. Additional analysis indicates that parents' economic status plays no role in explaining the beneficial outcomes for children—that is, the estimated effects did not change at all after adjusting for parents' income or hours worked.

## PART III: POLICY IMPLICATIONS

While the analysis described in Part II cannot pinpoint what it is about a change in the neighborhood poverty rate that leads to such beneficial effects, the larger point is that the improved economic outcomes found in the analysis are not attributable to characteristics of the children themselves, or to characteristics of their families—they are attributable exclusively to changes in the local environment surrounding the youth. This is a startling finding when one considers the research literature examining patterns of economic mobility. Whereas most research examining the mechanisms by which economic and social status are transmitted from parents to children focuses on factors within the home, the workplace, or the individual, this analysis provides support for the idea that neighborhoods, communities and metropolitan areas may also be central to processes of economic mobility.

This observation is important not simply from an academic perspective, but also from a policy perspective. Over the last few decades, the most prominent approaches to confronting the problem of concentrated poverty have been (1) to allow residents the opportunity to exit urban ghettos, as in the Gautreaux and Moving to Opportunity programs, and (2) to scatter public housing residents across urban areas, as in the Section 8 program and HOPE VI. The latter programs, and HOPE VI in particular, were implemented by the U.S. Department of Housing and Urban Development (HUD) as part of an effort to replace the high-rise model of public housing with scattered-site, mixed-income housing. HOPE VI has been criticized on a number of fronts, most notably because the program has resulted in a net loss of housing units for very poor families. While this criticism is valid, the broader goal of deconcentrating poverty through mixed-income housing developments is sound, and there is some evidence that neighborhoods that have been redeveloped through HOPE VI have been revitalized.[28] However, evidence assessing the outcomes among residents of complexes that have been demolished has shown mixed results.[29]

Turning to the two most prominent residential mobility programs, results from the Gautreaux program in Chicago showed that mobility out of the ghetto may be beneficial for parents and their children, but the subsequent experimental test of this idea—the Moving to Opportunity Program—has produced very different results, with some positive effects for girls but some negative effects for boys and little effect either way on other outcomes. Beyond the individual-level results, it is far from clear how such mobility programs would impact communities if taken to scale. Providing vouchers that allow the most motivated residents of poor communities the opportunity to exit may

well have harmful consequences for the community as a whole, unless such a policy is supplemented with major investments in the area. Overall, however, there is a great deal of evidence suggesting that simply offering vouchers that allow families to move out of the poorest neighborhoods may not be the most effective approach to confronting concentrated poverty.

The findings presented in Part II of this report provide support for an alternative approach. Instead of moving families out of the poorest neighborhoods, these results suggest that investing in disadvantaged neighborhoods in ways that reduce the concentration of poverty may produce lasting economic benefits for the children in such neighborhoods. The analysis does not provide any evidence on what types of interventions are likely to be effective, however. The report thus concludes by describing three recent, innovative programs that might serve as models for the types of interventions that have the potential to be particularly effective in bringing about the type of transformation that would lead to economic mobility in the nation's most disadvantaged neighborhoods—the first two examples focus on adult employment and poverty, the third focuses on children's environments.

## THREE INTERVENTIONS TO CONFRONT CONCENTRATED POVERTY

Around the same time that Moving to Opportunity was being implemented, two experimental programs focusing on employment and poverty were also tested: the Jobs-Plus program and the New Hope Program. Jobs-Plus, which was implemented in several cities by HUD in the late 1990s, was designed to saturate designated public housing complexes with training and services—including child care, job training, and transportation—in order to enable residents to enter the workforce, while also providing rent-based incentives encouraging work.[30] An experimental evaluation of the program, where public housing sites were randomized to receive the intervention or not receive it, showed strong positive results for outcomes related to earnings and wages.

The New Hope Program was implemented in Milwaukee in the mid 1990s with the guiding philosophy that if residents showed a commitment to working they should not be poor.[31] New Hope required that participants, which included any low-income women or men living in low-income neighborhoods, provide proof of thirty or more hours of work per week. The program offered participants an earnings supplement that raised their income above the poverty line, supplements for child care and health care, and temporary community service employment for any participant who could not find a job in the private sector. The effects of the program, which was evaluated experimentally, were remarkable: New Hope reduced poverty, increased employment, and raised the achievement levels of children in participating families.

A broad interpretation of these results suggests that when residents of a place, such as a housing project or a low-income neighborhood, are provided services and incentives designed to facilitate employment they will benefit substantially. However, it is important to keep in mind that these programs were intensive interventions implemented in strong labor markets, and it is not known whether such interventions would be as effective when demand for labor is weak. For this reason, certain provisions of the programs, most notably New Hope's guarantee of temporary community service work available to all low-income residents, male or female, are essential components of any program designed to increase employment and earnings in low-income neighborhoods.

An enormous amount of attention has also been given to programs that attempt to facilitate economic mobility by targeting children's environments. One of the most prominent of these is the Harlem Children's Zone, a program that President Obama has proposed to replicate in twenty areas across the country in his "Promise Neighborhoods" proposal.[32] The Harlem Children's Zone (HCZ), founded by Geoffrey Canada, is a system of programs that are designed to saturate 100 Harlem blocks with services for children and parents, schools and other learning opportunities, and resources designed to provide children living in the zone with the opportunity to prosper. Recent evidence that compares outcomes on standardized assessments among children who did and did not take part in the HCZ programs as a result of the admission lottery shows striking gains due to participation, suggesting that the program is effective in improving academic performance and school engagement.[33]

While the individual-level results are impressive, Canada has described his vision for the zone as a place where the ideals and goals of his programs are felt beyond the individual families that take part in these programs, and "contaminate" the area, infecting all residents in the zone. If the HCZ is successful, according to these standards, it will transform the area that it covers and bring about a new hope among the children of the zone, a new appreciation for the role of education in facilitating mobility, and a new perspective toward child development among parents. For an intervention like the HCZ, a program that is designed to saturate a place with the resources that are crucial for the development of every child, community-level outcomes should stand alongside individual-level outcomes, like individual test scores or rates of college graduation among program participants, as critical measures of success. However, it is not yet clear whether the HCZ has been effective in bringing about a transformation of the area, one that extends beyond the parents and children who have been fortunate enough to move through the system of programs that are offered in the zone. Randomizing the neighborhoods which are selected as "Promise Neighborhoods" in Obama's proposal would go a long way toward providing the evidence necessary to evaluate the effectiveness of the idea, and would do so with no added cost.

## CONCLUSION

In the United States, living in a poor neighborhood often means living in an environment that is unhealthy and violent, and may offer relatively poor learning opportunities and economic opportunities. The troubling news from this report is that inequality in our neighborhoods may be contributing to the persistence of racial differences in economic mobility. The hopeful news is that investments in neighborhoods that reduce the concentration of poverty could have powerful effects on the economic trajectories of children living within the most disadvantaged communities.

## APPENDIX

### ANALYSIS DETAILS FOR PART I

### Data and Sample

The analysis presented in Part I of the report uses a data file with matched pairs of parents and children that was created using the "Family Identification and Mapping System" available on the PSID website (http://psidonline.isr.umich.edu). This interface allows the user to construct a file that contains unique identifiers for the parents (biological or adoptive) of sample members, allowing identification of any family members (that is, parents, siblings, children and grandparents) who were in the sample. The sample is composed of 2,430 pairs of black or white parents and children who meet the following criteria: (1) the "parent" was observed as the head of household at the age of 26 or older in at least five years of the survey in which the "child" was under 18 years old; (2) the "child" was observed again as the head of household, or the spouse or partner of a head of household, in at least five years at the age of 26 or older; (3) pairs have non-missing data on neighborhood poverty for parents and family income for both parents and children. In essence, the key criteria for inclusion into the sample are that the child is observed in a PSID household under the age of 18, and that the child is again observed as a household head or the spouse of a household head at the age of 26 or older.[34] Children in the sample were born between 1955 and 1970.

The PSID contains an oversample of low-income households often referred to as the Survey of Economic Opportunity (SEO) sample. In the 1990s a document produced by PSID staff raised questions about the procedures that were used to generate the SEO sample.[35] However, attempts to examine whether these procedures have produced problems with the SEO sample have generated no substantive evidence that the PSID sample is unrepresentative of the low-income population when compared with the Current Population Survey of the U.S. Census Bureau.[36] Because the SEO sample contains a large portion of the black families in the PSID, this study retains this portion of the sample in all analyses. Sample weights are utilized that are designed to make the sample representative of the United States' population as of the first survey year, 1968. These weights account for sample attrition, which is extensive due to the length of the follow-up. Researchers have addressed whether attrition has affected the representativeness of the PSID sample by comparing the PSID sample in 1989 to the Current Population Survey in the same year, and they find very little evidence to suggest that attrition has led to an unrepresentative sample.[37] More recent tests

examining the effects of attrition on intergenerational mobility estimates show no impact on results.[38] Selected analyses in this report were conducted with the SEO sample omitted, and the results were largely unaffected.

Data on neighborhood poverty come from the Neighborhood Change Database (NCDB) and are available for Census years 1970, 1980, 1990, and 2000.[39] The NCDB is a file created by the Urban Institute and GeoLytics to examine change in the composition of American neighborhoods over time. One nice feature of the database is that it allows the user to examine neighborhoods over time using tract boundaries that are normalized to represent the boundaries of the tract as of 2000; in other words, it is possible to examine the same geographic "neighborhood" over time even if the boundaries of the official tract have changed.

## Measuring Family Income and Economic Mobility

Family income in the parent generation is averaged over all years in which the household head is at least 26 years old and the child (second-generation household member) is under the age of 18. Family income in the second generation is measured as the adult family income of children averaged over all years in which the child is a household head or the spouse of a household head and is at least 26 years old.[40] To adjust for age in each generation, the analyses follow the approach used in earlier work by Tom Hertz and regress family income on the age of the household head and the squared age of the household head, including family fixed effects.[41] The predicted value of family income at age 40 (plus the family fixed effect) is used as the outcome variable, averaged over all years in which the individual is observed in the sample. Separate regressions are estimated for blacks and whites and for members of the first and second generations. Estimating four separate regressions, allows for unique age-income profiles by race and generation. All measures are inflated to represent 2008 dollars using the Consumer Price Index research series (CPI-U-RS).

Relative economic mobility is defined as it is in earlier research on race and economic mobility from the Economic Mobility Project[42]. Relative mobility refers to a change in an individual's position in the income distribution from one generation to the next. To measure mobility, sample members are divided into equally sized quintiles (fifths) of family income in each generation (using the individual weights in the PSID). Upward economic mobility is defined as moving into a higher quintile of the income distribution from one generation to the next, and downward mobility as moving into a lower quintile of the income distribution. Descriptive statistics for family income in each generation are shown in Table A1, along with the income amounts representing the cutoff points for each quintile in each generation.

| TABLE A1 | Average Family Income and Income Quintile Cutoffs in Each Generation |
|---|---|
| **GENERATION ONE VARIABLES** | |
| Generation 1 family income | $76,747 |
| Generation 1 family income (age adjusted log) | 11.11 |
| Bottom/2nd quintile income cutoff | $44,442 |
| 2nd/3rd quintile income cutoff | $62,013 |
| 3rd/4th quintile income cutoff | $79,142 |
| 4th/Top quintile income cutoff | $102,866 |
| **GENERATION TWO VARIABLES** | |
| Generation 2 family income | $68,851 |
| Generation 2 family income (age adjusted log) | 11.00 |
| Bottom/2nd quintile income cutoff | $41,614 |
| 2nd/3rd quintile income cutoff | $56,632 |
| 3rd/4th quintile income cutoff | $70,644 |
| 4th/Top quintile income cutoff | $90,625 |

It is important to note that second-generation income cutoff points in this analysis are lower than those reported in previous analyses examining race and economic mobility.[43] The primary reason for this difference is that the measure of family income used in this study is averaged over all years in which the second-generation sample member is at least 26 years old and is the head of household or the spouse of the head of household, whereas the Economic Mobility Project's *Getting Ahead or Losing Ground?* measures second-generation income only in survey years 1996, 1997, 1999, 2001, and 2003. This difference in measurement means that the previous study measured family income for the second generation not only when sample members were older, but also during a period of strong economic growth, the late 1990s. The measure used in the current study is lower in part because income is measured earlier in the careers of second-generation sample members, but more importantly because income is measured over a longer time span, beginning in the late 1980s and through 2005. By measuring family income both before and during the period of strong economic growth, this measure captures a more representative period of time and thus captures economic mobility more accurately.

## Variable Descriptions

The analyses in Part I of this report contain several control variables representing different family demographic and economic characteristics. All of these measures represent characteristics of the first-generation family unit or of the individual identified as

the household head. Similar to the measure of first-generation family income, all variables represent averages measured over all years in which the household head is at least 26 years old and the child (second-generation household member) is under the age of 18.

Welfare receipt is a dichotomous indicator for whether the household head, or his or her spouse, ever reports receiving any income from programs typically referred to as "welfare," including Aid to Dependent Children, Aid to Families with Dependent Children, or Temporary Assistance for Needy Families. Occupational status is based on the socio-economic index for all occupations using 1970 occupation codes available in the PSID. Educational attainment is measured as the household head's total years of schooling. Annual hours worked represents the estimated hours worked by the household head on all jobs in the year prior to the interview, and is coded as missing in years in which the individual is not working. Home ownership represents the proportion of years observed in which the family owned a home. The household head's marital status is measured with categorical indicators for "always married" over the period of measurement, "ever married," and "never married," with never-married household heads serving as the reference group. Measures of the household head's gender and the number of children in the family are also included.

Lastly, three additional measures are included that tap into the household head's outlook or attitude toward the future, all of which are based on survey items asked only from 1968 through 1972. Parental efficacy measures household heads' "sense of personal effectiveness, and a propensity to expect one's plans to work out." Past research has demonstrated that the measure of efficacy is significantly associated with individual earnings, providing evidence of construct validity.[44] Aspiration/ambition measures heads' "attitudes and attempts to improve economic well-being," and consists of several items describing respondents' expressed desire to advance in economic status. The horizon index measures heads' self-reported behavior "indicating a propensity to plan ahead." This measure includes items measuring the respondent's ideas about his/her own employment, savings, and family plans, but also his or her plans for children's education. All three "attitude" variables are found to be strongly associated with a "shock" index measuring unplanned events in individual's lives, including unexpected firings or unemployment, evictions, emergency expenditures, unplanned children and illness.[45]

<div align="center">

**ANALYSIS DETAILS FOR PART II**

</div>

### Sample

The sample for the analysis presented in Part II of this report consists of all black children in original PSID sample families who were under the age of 15 in 1980

and identified as a "child" in the PSID household, and who were subsequently observed at the age of 21 or older as a head of household or the "spouse" of a household head in any survey year after 1990. The sample consists of 1,352 blacks born between 1966 and 1979.

## Measures of Adult Economic Status

The dependent variables in Part II represent three dimensions of adult economic status: individual earnings, family income, and household wealth. All of the dependent variables are measured as the average over all survey years from 1990 through 2005 in which the individual is observed as a household head or the spouse of a household head. This is done in order to create approximate measures of average adult social and economic status. In addition to the measure of family income, individual earnings includes all income derived from labor market activity; results are shown for individuals who report any non-zero earnings over the period of adulthood. Household wealth represents the total value of all assets (including real estate) less all debts held by the family. The wealth measure is included based on research demonstrating the severe racial gaps in household wealth, which are more pronounced than racial gaps in income or earnings.[46] All three measures of economic status are inflated to represent year 2008 dollars.

## Analytic Methods

Part II of the report develops a new method to estimate the effect of neighborhood change occurring around families. The central idea underlying the method is that, under certain conditions that will be specified, it is possible to think about the future of a family's neighborhood as a type of natural experiment, in the sense that families have a choice about where they would like to live, but have little choice about how their neighborhood environment will change once they are there. The phenomenon of neighborhood change thus presents an opportunity to understand how neighborhoods influence residents that confronts the selection issue directly.

Although the conceptual framework is laid out in more detail below, it is perhaps necessary to address two immediate objections that are likely to have entered the mind of the reader. The first objection is that neighborhood change does not occur in a random manner—some neighborhoods are more likely than others to deteriorate or to improve quickly, and some individuals are likely better equipped to predict how a neighborhood will change in the future. The strategy used in the analysis deals with this problem by matching individuals on the characteristics of their neighborhoods and the trend of change in the neighborhood in the period before the matching takes place.

Thus, matched pairs are selected among families that live in extremely similar neighborhoods that have experienced the same changes in poverty in the prior period. The difference between the matched families is in the change that occurs in their neighborhoods subsequent to the matching.

A necessary assumption of this approach is that if parents choose neighborhoods on the basis of factors other than the neighborhood poverty rate in 1980 and the change since 1970, those factors must either be similar in neighborhoods that do and do not experience future poverty declines or must have no impact on the future income of children. However, if this assumption were violated one would assume that parents who are more skilled in evaluating the future of the neighborhood would be advantaged relative to parents who are less able to forecast likely changes in their neighborhood on the horizon. The comparisons described below show that this is not the case. If anything, parents in neighborhoods that experience a decline in poverty are disadvantaged relative to parents in neighborhoods that experience no change or an increase in poverty over the same timeframe.

A second problem, glossed over in the main text for the sake of simplicity, is that families often move out of a neighborhood as it begins to change around them, and thus may not actually experience any change in the neighborhood environment even if they begin in a neighborhood that undergoes rapid transformation. This issue can be thought of as essentially equivalent to the issue of non-compliance in the experimental context. For instance, in the Moving to Opportunity experiment more than half of families offered a voucher did not use the voucher to move to a low-poverty neighborhood, and thus did not experience a change in their neighborhood environment.[47] It is still possible to estimate effects of neighborhood change even if all families do not actually experience the treatment of interest. In Moving to Opportunity, for instance, researchers have used the offer of a housing voucher, which is randomly distributed but highly correlated with actual use, as an instrument for utilization of a voucher in order to estimate the effects of residential mobility among "compliers."[48]

In the present case, a dichotomous indicator for whether individuals live in a neighborhood that is on the verge of undergoing a decline in poverty can be used to instrument for the degree of change actually experienced over the decade. Conditional on the variables used in the matching process, the key assumption is that individuals in neighborhoods that undergo a drop in poverty would have had similar outcomes as their matched counterparts in the absence of the changing neighborhood environment, or that there are no systematic differences in the "potential outcomes" of treatment and control group members. Embedded in the assumption is the requirement that a decline in neighborhood poverty causes an improvement in child income rather than both being

the consequence of some unobserved third factor. This assumption is impossible to test, but it is possible to produce evidence that bolsters or weakens the case for considering treatment status to be ignorable.

The analysis uses matched pairs of treatment and control group members, with matching on neighborhood poverty in 1980 and the trend of change in neighborhood poverty in their 1980 neighborhood from 1970 to 1980. Because individuals are matched after they have selected a neighborhood, unmeasured characteristics that influence neighborhood selection are incorporated into the matching process. The analyses then examine change in the poverty rate in the individual's neighborhood environment as the causal treatment of interest. Specifically, the treatment is defined as living in a neighborhood in 1980 that undergoes any decline in poverty from 1980 to 1990. The control group consists of individuals living in neighborhoods that had no decline or an increase in poverty over the same period. As mentioned previously, not all individuals who are in the treatment group will actually experience life in a changing neighborhood—families may not be able to afford higher rents in a neighborhood undergoing demographic change, families may not feel comfortable as the neighborhood changes, or families may move for any number of other reasons. To address this, an indicator for treatment status is used as an instrument for the actual change in poverty experienced over the decade. The actual change in an individual's neighborhood is defined as the difference between the level of poverty in the individual's neighborhood of residence as of 1990 and the level of poverty in the neighborhood of residence in 1980.

This approach produces two sets of estimates. Drawing on the language and methods utilized in the recent Moving to Opportunity experiment and the literature on counterfactual causal analysis, the first estimate may be referred to as the "intent-to-treat" (ITT) effect. This is the effect of living in a neighborhood that is on the verge of undergoing a decline in poverty, and this estimate does not consider whether individuals actually remain in the changing neighborhood. Although the experimental language does not translate perfectly to the non-experimental setting, it is useful to describe this estimate as an ITT effect in order to maintain the connection to the experimental context and to distinguish between the multiple estimates that will be produced.

The assumption of ignorable treatment assignment could be challenged if one believes that families are differentially equipped to predict the future of their neighborhood, even with the same information on trends of change in neighborhood racial and economic composition in the years prior to measurement of treatment. The skills that might enable one family to choose a neighborhood that is on the verge of a decline in concentrated disadvantage could also predict the adult economic outcomes of children in the family. To assess the likelihood of this possibility various family characteristics of treatment

and control group members were examined, measured prior to the treatment, to determine whether there are differences in measures of family background, such as parental income, education, or occupational status that might be thought to give some families an edge in predicting the future of their neighborhood. Any remaining imbalance among treatment and control group members on observable measures of family background, neighborhood characteristics, and metropolitan area characteristics was also assessed and adjusted in estimating the ITT effects.

Note that this procedure differs from more common matching techniques, such as propensity score matching. This matching procedure was chosen because it provides a simple, intuitive, and effective way to compare sample members who have chosen extremely similar neighborhoods in which to live, and neighborhoods that showed the same trend of change in the 1970s. Whereas a propensity score matching procedure would create matched pairs based on the estimated probability of selecting into a given treatment, the present analysis addresses the central critique of neighborhood effects research more directly, by matching on the neighborhoods that families have already selected. Thus, it is an approach that explicitly accounts for selection bias as commonly thought of in the neighborhood effects literature.

An added benefit of this approach is that it allows for a partial test of the central assumptions of the matching method. Because the matching is carried out on only a few key variables describing the selected neighborhood environment, there are numerous measures of family background that are not included in the matching procedure. The advantage of this is that after conducting the matching, it is possible to compare treatment and control group members on all of the observed variables that were not included in the matching procedure. The comparison on observable measures of family background that were not included in the matching procedure provides at least some indication of whether there is likely to be balance on unobservable characteristics of treatment and control group members, and thus provides evidence to bolster or else weaken the case for considering treatment status to be ignorable. This test provides no information about unobservables that are not correlated with the key measures of family background.

The ITT estimate is derived from Equation 1:

$$(1) \quad Y_i = \alpha_0 + \alpha_1 Z_i + \alpha_2 X_i + v_i$$

where the outcome Yi , representing a given measure of adult economic status, is regressed on the indicator for treatment status, Zi, and a set of covariates, including characteristics of the neighborhood and the metropolitan area, as well as family background characteristics. The ITT estimates represent the average effect of living in a neighborhood, in 1980, that undergoes a decline in poverty from 1980 to 1990.

The ITT estimates do not reveal how living in a changing neighborhood affects adult economic outcomes, because many families living in such neighborhoods will exit the neighborhood. For this reason a second set of estimates are generated that represent the effect of actually experiencing a change in neighborhood poverty on adult economic and social outcomes. This second set of estimates is referred to in the experimental literature as the "effect of treatment on the treated" (TOT), and represents the effect of the treatment on those who "comply" with the treatment, or actually experience some change in their neighborhood over the decade. To generate TOT estimates an indicator for living in a neighborhood that subsequently experiences a decline in poverty is used as an instrument for actually experiencing a decline in poverty in the individual's own neighborhood from 1980 to 1990. The estimate is obtained, using two-stage least squares, from Equation 2:0

$$(2)\ Y_i\ =\ \beta_0\ +\ \beta_1\,\Delta_i\ +\ \beta_2\,X_i\ +\ e_i$$

where  i is the actual change in the individual's neighborhood environment from 1980 to 1990, which is instrumented with the indicator for living in a changing neighborhood. The TOT estimates are reported in the main report—results from both the ITT estimates and the TOT estimates are shown in Table A2.

| TABLE A2 | Estimated Effects of a Decline in Neighborhood Poverty for Blacks | |
|---|---|---|
| ITT estimates represent the effect of living in a neighborhood that experiences a decline in poverty over the 1980s. TOT estimates represent the effect of a 1 percentage-point decline in poverty over the 1980s. | | |
| | **ITT ESTIMATES** | **TOT ESTIMATES** |
| Labor earnings | $5,569** ($1,337 to $9,802) | $398** ($74 to $722) |
| Family income | $8,934*** ($1,393 to 16,475) | $688** ($119 to $1,258) |
| Wealth | $9,655 (-$7,212 to $26,521) | $744 (-$546 to $2,035) |

*Notes: 95% confidence intervals are shown in parentheses. * = p < 0.10; ** = p < 0.05; *** = p < 0.01.*

## Matching Treatment and Control Group Members

The "treatment" group consists of individuals who live in a neighborhood in 1980 that undergoes a decline in poverty from 1980 to 1990. The control group consists of individuals living in a neighborhood in 1980 that experiences no change or an increase in poverty over the same period. Based on the criteria for sample selection and these definitions, there are 467 blacks in treatment neighborhoods and 885 in control neighborhoods, reflecting the fact that neighborhood poverty increased in blacks' neighborhoods over the 1980s more often than it decreased.

The variables used to match individuals in the treatment and control groups are the level of poverty in the neighborhood in 1980 and the degree of change in neighborhood poverty from 1970 to 1980. Treatment group members are matched to control group members if they lived in neighborhoods that had poverty rates within 2.5 percentage points in 1980, and if the change in the poverty rate over the 1970s was within 2.5 percentage points. The matching criteria were designed to be intuitive yet stringent, and to produce strong balance on the selected neighborhood environments of treatment and control group members. For example, a treatment group member living in a neighborhood with 25 percent poverty in 1970 and 30 percent poverty in 1980 would be matched to any control group member living in a neighborhood with between 22.5 and 27.5 percent poverty in 1970 and 27.5 and 32.5 percent poverty in 1980. While the primary goal of the matching is to generate balance on the level and change in the poverty rate, an initial matching showed divergence in the racial composition of treatment and control group members' neighborhoods. Therefore, matches were discarded if the percentage of black residents in the neighborhoods in 1980 or the change in percentage black from 1970 to 1980 differed by more than 10 percentage points. This proved to be effective in generating stronger balance on neighborhood racial composition as well as neighborhood poverty.

Control group members can be matched to multiple treatment group members and vice versa; if more than one control is matched to a treatment group member the control group member is given a weight equal to 1/k, where k is the number of matches for the treatment group member. Among the 467 blacks in treatment neighborhoods, 221 were successfully matched to at least one control group member—the relatively low percentage of successful matches reflects the goal of creating strong balance on neighborhood characteristics. Table A3 shows how well the matching worked by describing means on a set of pre-treatment covariates for treatment and control group members, including the neighborhood characteristics used in the matching and others that were not used, and several measures of family background and demographic characteristics of families as of 1980. Comparing means is not sufficient for assessing balance, but this comparison does offer a good summary perspective.[49] A more complete consideration of balance using quantile-quantile plots leads to the same conclusions about balance as those made in Table A3.

Table A3 indicates that the matching procedure clearly produces strong balance on mean values of all 1980 neighborhood characteristics as well as trends of change from 1970 to 1980. The first two groups of rows in the table show that black treatment and control group members were living in neighborhoods that were extremely similar in 1980 and that had experienced the same patterns of change prior to 1980. The third and fourth groups of rows demonstrate that the metropolitan areas of treatment and

control group members were also extremely similar and changed in parallel ways in the 1970s. On the basis of these comparisons, it seems unlikely that individuals in the treatment group could pick up any hints that their neighborhoods would undergo a transformation in the decade to come.

The measures in the final group of rows represent various dimensions of family background and demographic characteristics. Where there are differences between treatment and control group members it appears that the treatment group tends to be slightly disadvantaged. For instance, treatment group members come from families with slightly lower household income and household head earnings than their matched counterparts in the control group, and are less likely to own their home. Treatment group members are from families where the household head has slightly higher years of schooling (12.67 compared to 12.41 for control group members), but otherwise the table suggests that blacks living in neighborhoods where poverty declined do not have any systematic advantages that would give them an edge in selecting neighborhoods on the verge of positive change. The slight imbalance between members of the treatment and control groups appears to run in the opposite direction of what would be anticipated. These descriptives bolster confidence in the core assumptions of the analysis. However, to ensure that treatment and control group members are well-balanced on observable characteristics these and additional covariates are included in the final specifications estimating the effects of neighborhood change.

*See Table A3 on following page*

| TABLE A3 | **Balance Between Matched Pairs of Black Treatment and Control Group Members on Neighborhood Characteristics in 1980 and Change From 1970 to 1980, Metropolitan Statistical Area (MSA) Characteristics in 1980 and Change from 1970-1980, and Family Characteristics in 1980** |
|---|---|

|  | TREATMENT | CONTROL |
|---|---|---|
| **Neighborhood characteristics in 1980** | | |
| Poverty rate | 25% | 25% |
| % Black | 67% | 67% |
| % White | 29% | 30% |
| **Percentage point change in Neighborhood characteristics, 1970–1980** | | |
| Poverty rate | +6% | +5% |
| % Black | +9% | +10% |
| % White | -11% | -12% |
| **MSA characteristics in 1980** | | |
| Employment/population ratio | 0.61 | 0.61 |
| Poverty rate | 12% | 12% |
| % Black | 21% | 21% |
| **Percentage point change in MSA characteristics, 1970–1980** | | |
| Employment/population ratio | +2% | +2% |
| Poverty rate | -0% | -1% |
| % Black | +2% | +1% |
| **Family background characteristics, 1980** | | |
| Head's labor earnings | $21,665 | $28,055 |
| Family income | $38,854 | $43,009 |
| Heal's occupational status | 2,746 | 2,880 |
| Head years schooling | 12.67 years | 12.41 years |
| Family owns home | 20% | 31% |
| Head is married | 55% | 55% |
| Number of kids in family | 2.90 | 2.58 |
| Age of child | 8.22 years | 8.00 years |
| Gender of child (% male) | 50% | 59% |

## NOTES

[1] Duncan, 1968.

[2] Hertz, 2005; Hertz, 2006; Isaacs, 2007.

[3] Hertz, 2005.

[4] Three examples of such classic sociological studies are: DuBois, 1899; Liebow, 1967; Hannerz, 1969.

[5] On neighborhoods and political influence, see: Cohen and Dawson, 1993.

[6] For reviews of the literature on "spatial mismatch," see Holzer, 1991; Ihlanfeldt and Sjoquist, 1998.

[7] Wilson, 1996. Pattillo,1999.

[8] Alba, Logan, et al. 1994; Frankenberg, Lee, et al., 2003; Flippen, 2004; Logan, Stults, et al., 2004.

[9] Datcher, 1982; Corcoran, Adams et al., 1992; Corcoran, Gordon, et al. 1992; Aaronson, 1998; Plotnick and Hoffman, 1999; Vartanian, 1999; Page and Solon, 2003; Vartanian and Buck, 2005.

[10] Rubinowitz and Rosenbaum, 2000.

[11] Kaufman and Rosenbaum, 1992; Rubinowitz and Rosenbaum, 2000.

[12] Votruba, Kling, et al., 2004.

[13] Kling, Liebman, et al., 2007.

[14] Because the PSID began in 1968, before the post-1965 wave of immigration began in earnest, there are very few Asian American or Hispanic/Latino families in the original PSID sample. The analysis therefore focuses on African Americans and whites, excluding the small number of cases from other ethnic backgrounds.

[15] In both Part I and Part II, the measures of economic resources in each year and in each generation are adjusted for the age of the individual as described in the Appendix. This adjustment addresses the known sensitivity of mobility results to the age at which parents' and child resources are measured. See Hertz, 2005; Haider and Solon, 2006.

[16] Neighborhood poverty rates are only available in census years (1970, 1980, 1990, and 2000). For all years between the decennial censuses, neighborhood poverty rates are estimated by assuming that change from one census year to the next is linear. Children are then assigned the average of the poverty rates of all of the neighborhoods in which they lived during the years their parents are included in the sample.

[17] Sampson, Sharkey, et al., 2008. The measure of neighborhood disadvantage is a composite scale generated from a principal component analysis of six census tract characteristics: welfare receipt, poverty, unemployment, female-headed households, racial composition (percentage black), and density of children (percent of residents under 18). "Low" disadvantage indicates a score that is more than half a standard deviation above the mean score for all neighborhoods in a given year. "High" disadvantage indicates a score that is more than half a standard deviation below the mean. "Medium" disadvantage indicates the neighborhood's score falls between these two groups.

[18] The small number of African Americans in the top two quintiles of the income distribution made it necessary to examine downward mobility from the top three quintiles, or the richest 60 percent of neighborhoods.

[19] A statistically significant result indicates that it is very unlikely that an estimated relationship between an independent variable, such as neighborhood poverty, and a dependent variable, such as economic mobility, could be obtained purely by chance. A non-significant result means that there is not sufficient evidence to conclude that there is any relationship between neighborhood poverty and economic mobility. In this case, it is not possible to rule out that the change in upward mobility as neighborhood poverty increases is due to chance (for either blacks or whites). In addition, blacks raised in low poverty neighborhoods had a very low rate of upward mobility; however, this figure is based on a small number of cases, and thus should be interpreted with some caution.

[20] The exception is that the different downward mobility for whites in low- and medium-poverty neighborhoods is statistically significant. Rates of downward mobility by neighborhood poverty level are quite sensitive to how the neighborhood categories are defined, in large part because of the small number of blacks and whites in each of the different types of neighborhoods.

[21] For details on these analyses, see the Appendix.

[22] These points are also true for the relationship of neighborhood poverty rates to upward mobility, but again, the effect is not statistically significant, so it is not possible to make definitive statements.

[23] See Appendix for the full list.

[24] Logan and Alba, 1993; Logan, Alba, et al., 1996; Alba, Logan, et al., 2000.

[25] Neighborhood change in the 1980s is considered because it is the most recent year that also allows sufficient observations for the incomes of adult children thereafter. There are only three PSID waves after 2000, so looking at neighborhood change in the 1990s is problematic.

[26] Matching also takes neighborhood racial composition into account, as described in the Appendix. The analytic approach assumes that (1) parents cannot effectively forecast whether their neighborhood will change in ways that will help or hurt their children except insofar as they have information on the current poverty rate in their neighborhood and the change in the poverty rate compared with ten years earlier; and (2) the estimated effects are attributable to a decline in neighborhood poverty, as opposed to an unrelated shock that affects the neighborhood poverty rate and also affects children's economic trajectories. The first assumption would be violated if, for instance, change in neighborhood poverty rates over the past two years provides additional information about likely neighborhood change in the future beyond the current poverty rate and the rate ten years ago. However, if this assumption were violated one would assume that parents who are more skilled in evaluating the future of the neighborhood would be advantaged relative to parents who are less able to forecast likely changes in their neighborhood on the horizon. The comparisons in the Appendix show that this is not the case. If anything, parents in neighborhoods that experience a decline in poverty are disadvantaged relative to parents in neighborhoods that experience no change or an increase in poverty over the same timeframe. The second assumption would be violated if, say, an elite charter school moves into a child's neighborhood, which improves the child's education and also causes non-poor people to move into the neighborhood.

[27] To be included in the analyses, blacks in the PSID had to be under age 15 in 1980 and had to be observed at least once after the 1990 survey as a household head or spouse of a head who was age 21 or older.

[28] Popkin, Katz, et al. 2004 offers an overview of research on HOPE VI up to the early part of this decade.

[29] Jacob, 2004; Popkin, Katz, et al., 2004.

[30] Bloom, Riccio, et al., 2005.

[31] Duncan, Huston, et al., 2009.

[32] Tough, 2008 is an excellent journalistic account of the Harlem Children's Zone, including the early struggles of the various programs and the challenges that Canada has faced as the program has evolved.

[33] Dobbie and Fryer, 2009.

[34] Because the sample contains multiple parent/child pairs from the same family, robust standard errors are used to account for the clustering of errors among individuals in the same family.

[35] Brown 1996.

[36] Becketti, Gould et al. 1988; Fitzgerald, Gottschalk et al. 1998a; Fitzgerald, Gottschalk et al. 1998b.

[37] Fitzgerald, Gottschalk et al. 1998b. Means on most variables are extremely similar in each dataset. An exception is welfare participation among female heads, which is lower in the PSID. Other exceptions are the racial and ethnic distributions in each sample, which are attributable to the criteria for sample selection in the PSID. These differences existed even in the first year of the PSID, suggesting that

attrition is not the cause. Differences also appear with certain labor market outcomes, but they are small and are likely due to differences in reporting of income and labor market activity between the two surveys.

[38] Sharkey 2008.

[39] Linear interpolation is used to impute census tract information in the years between each decennial Census. About 30% of all census tracts in the year 2000 were not yet assigned census tract boundaries by 1970, and 20% were not "tracted" in 1980. Because areas that were not tracted were primarily rural, the sample is disproportionately urban.

[40] The number of years of parent income data ranges from 5 to 20, with a mean of 9.9 for blacks and 10.8 for whites. The range for child income data is also from 5 to 20, with a mean of 11.3 for blacks and 11.7 for whites.

[41] Hertz 2005.

[42] Isaacs 2007.

[43] Isaacs 2007 splits the income distribution into quintiles but finds that second generation sample members had higher income than first generation sample members, for instance.

[44] Duncan, Liker et al. 1983.

[45] Ehrlich, Duncan et al. 1975, p. 190.

[46] Oliver and Shapiro 1995; Conley 1999.

[47] Goering and Feins 2003.

[48] Kling, Liebman et al. 2007.

[49] Imai, King et al. 2008.

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## ABOUT THE PROJECT

The Economic Mobility Project is a unique nonpartisan collaborative effort of The Pew Charitable Trusts that seeks to focus attention and debate on the question of economic mobility and the health of the American Dream. It is led by Pew staff and a Principals' Group of individuals from four leading policy institutes—The American Enterprise Institute, The Brookings Institution, The Heritage Foundation, The New America Foundation, The Peterson Foundation, and The Urban Institute. As individuals, each principal may or may not agree with potential policy solutions or prescriptions for action but all believe that economic mobility plays a central role in defining the American experience and that more attention must be paid to understanding the status of U.S. economic mobility today.

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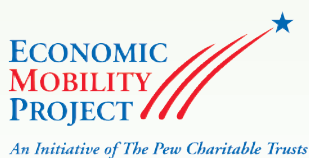
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