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# Place Prosperity and the Intergenerational Transmission of Poverty\*

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**Abstract:** Much new work in urban and regional economics has emphasized the importance of place prosperity. This study focuses on the determinants of adult poverty and the contribution of place prosperity in damping the intergenerational transmission of poverty. Childhood poverty is a major predictor of adult poverty. We consider how such intergenerational transmission is affected by metropolitan and neighborhood (census tract) prosperity. To capture the temporal dynamics of this process, the model explored here is recursive in nature. We use longitudinal microdata from the Panel Study of Income Dynamics. Location variables at the census tract and metropolitan levels, family variables, and poverty status are observed for our subjects over multiple years both in childhood and adulthood. Neighborhood and metropolitan prosperity are measured in terms of average incomes adjusted for purchasing power parity differences. The standardized neighborhood prosperity direct effect on adult poverty is strongly significant and its total effect is twice as large. On the other hand, the standardized direct effect of metropolitan prosperity and its total effect are small and insignificant. But even neighborhood effects are modest compared to standardized effects of childhood poverty, race, mother's education and own education. At least with respect to these data, the recent emphasis on place variables would seem to be overstated.

*Keywords:* intergenerational poverty, place prosperity, place effects, family effects

*JEL Codes:* I30, I32, D10

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## 1. INTRODUCTION

A range of studies emphasize the importance of place prosperity in the intergenerational transmission of poverty (for example, Chetty et al. (2014); Chetty and Hendren (2018a);

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Chetty et al. (2016); Cutler and Glaeser (1997); Jencks and Mayer (1990); Sampson et al. (2002); Sharkey (2008); Sharkey and Elwert (2011); Wilson (1987). For example, Chetty et al. (2014) argues that a family's commuting zone has a powerful effect on children's subsequent income levels. At the neighborhood level, path breaking work by Wilson (1987) focusing on the experiences of inner city ghetto residents, argues a variety of neighborhood factors are at the heart of the poverty experiences for blacks. The purpose of the present paper is to quantitatively gage the roles of childhood metropolitan area prosperity and childhood neighborhood prosperity in the intergenerational transmission of poverty.

Demonstrating that a variable has significant effects is not the same thing as demonstrating that those effects are quantitatively important. The approach taken here is to embed these place characteristics in a recursive path analysis so that direct, indirect and mediated effects can be measured and compared to the effects of demographic variables. Two key questions emerge. First how large are the direct and indirect effects in question? Second, and equally important, to what extent are these place effects mediating basic demographic variables such as family poverty and mother's education?

Using Panel Study of Income Dynamics (PSID) data, our major dependent variable is the percentage of time that an adult is in poverty. A key independent variable is the percentage of time that the same individual was in poverty as a child<sup>1</sup>. In light of the existing literature we certainly expect childhood poverty and family demographics to influence adult poverty. Given the focus of much recent work on place, we explore to what extent these place effects are mediated through the residential choices of a child's family. Working forward, we consider how these choices influence adult poverty directly and indirectly through educational achievement. Our central finding is that the direct and indirect effects of place prosperity are modest in comparison to childhood family characteristics (poverty, mother's education and race) and own education. If this conclusion is correct, perhaps, policy proposals focused on mobility need to be more carefully thought out.

## 2. BACKGROUND

In 2018, the U.S. Census bureau estimated the official poverty rate at 11.8% and among children that rate was estimated to be 16.2% (United States Census Bureau, 2019b). Over 4 in 10 of these children lived in extreme poverty with incomes below 50% of the federal poverty threshold (United States Census Bureau, 2019a). A variety of policies have been deployed to combat poverty and its root causes since the War on Poverty was officially declared more than 50 years ago. Despite these efforts, the rapid reduction in the overall poverty rate that occurred through the 50s and 60s leveled off in the 70s and the poverty rate has been fluctuating in the range of 10-15% since (Semega et al., 2017). By one estimate, 50% of Americans will have experienced a year in poverty by age 65; among Black Americans, these numbers are even higher, with more than 75% spending some time in their life below the

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<sup>1</sup>Analysis in Corcoran and Adams (1997) also uses a sample from the PSID but only includes children in the sample in 1968. Over 50% of our sample were born after 1968 with the youngest being born in 1989. Many of these subjects have now gotten older and we can test if poverty outcomes have changed since. The inclusion of younger cohorts also allows us to test if there are period effects related to the economy that may have played a role in adult poverty outcomes.

poverty line (Rank and Hirschl, 1999). Though much of this poverty experience is transient, for a segment of the population, poverty is persistent.

Growing up in an environment of persistent poverty poses multiple risks to children. Typically, such children live in poor neighborhoods characterized by higher crime rates, lower school quality, higher exposure to pollutants, and others (Evans, 2004). Brooks-Gunn and Duncan (1997) provide a long list of measures that show the stark contrasts in physical health, cognitive outcomes, school achievement, behavioral outcomes, teen out-of-wedlock birth, violent crime experienced, and others, between poor and non-poor children. The differences include a 17.8% gap on being in excellent health, a 14.7% gap in experiencing grade repetition, and a 7.4% gap in teen out-of-wedlock births. A portion of these gaps are potentially due to neighborhood effects experienced in childhood. We are particularly concerned with the impact of place prosperity on educational attainment, a variable of crucial importance in subsequent adult poverty.

Poverty experienced early in childhood appears to have significant impacts on later outcomes. Both poverty status and poverty duration (persistence) negatively affect cognitive development (Duncan et al., 1994), strongly and negatively affect achievement (Brooks-Gunn and Duncan, 1997), and have strong negative impacts on high school completion (Haveman et al., 1991). Further, student achievement as measured by test score differences have been widening for poor and high-income children over time even after controlling for parental education (Reardon, 2011). One reason for the achievement gap is that poor families may not be able to make the necessary investments in the development of their children (Becker and Tomes, 1986), a circumstance that seems to be exacerbated by rising income inequality (Reardon, 2011).

Growing up poor greatly heightens the probability of being poor in adulthood. Different researchers have posited varying reasons for the lower income status of children who grow up in poverty. Becker (1981) and Becker and Tomes (1986) view family tradeoffs between investments in children and consumption under limited resources as a key reason limiting intergenerational income mobility.

Recent studies provide new evidence for the effect of place on economic outcomes and intergenerational mobility (Chetty and Hendren, 2018a; Chetty et al., 2016, 2014). Using data from the Moving to Opportunities experiment, Chetty et al. (2016) find that children who moved to lower poverty areas when below the age of 13 had higher earnings as young adults than a control group and that these effects were stronger the longer one stayed in the new environment. Working at the scale of commuting zones, Chetty et al. (2014) also show that there are significant differences in intergenerational income mobility across space with high mobility areas being characterized by less residential segregation, less income inequality, and better schools, among other traits. It should be noted, however, that recent work by Gallagher et al. (2018) finds that a substantial portion of the Chetty et al. “place effect” on upward mobility can be explained by household characteristics (e.g. race, family structure, and mother’s education) in childhood. Chetty and Hendren (2018a,b) also find improved earnings for children who move to better neighborhoods and also identify and quantify the place effect. Again, Gallagher et al. (2018) question the external validity of these geographic mobility studies, pointing to differences in household characteristics of moving and non-moving households. These results suggest that inter-generational effects should include both

household characteristics and place characteristics.

Wilson (1987) puts major emphasis on neighborhood effects. Principal among these are the disappearance of jobs from ghetto neighborhoods, the out-migration of working and middle class families, and the increased joblessness that has created an urban underclass lacking the networks to connect to mainstream economic opportunities and role models (Wilson, 2012). This urban context is assumed to be transmitted inter-generationally with a large number of black children who grow up in the poorest areas also living in high poverty areas in adulthood (Sharkey, 2008). Further, significant reductions in cognitive ability is observed in children when their families have lived in such environments over several generations Sharkey and Elwert (2011).

In a 1997 study, Corcoran and Adams (1997) examine factors related to intergenerational poverty using the PSID data to test the theories of Becker (1981) and Wilson (1987), discussed above, along with those by Anderson (1978), Mead (1986), and Murray (2008) who posit that welfare dependence results in intergenerational poverty either because children of welfare recipients learn a welfare culture and adopt behaviors that repeat this cycle or because of welfare's effect on disincentivizing taking low-wage jobs. They find that children who grew up in poor households, with income-to-needs ratio less than one, also had a lower income-to-needs ratio in adulthood. Further, except in the case of white daughters, those whose families had average income-to-needs ratios less than one were more likely to experience some poverty (as well as persistent poverty for black daughters and sons) in adulthood.

### 3. DATA AND METHODOLOGY

The literature on place and the intergenerational transmission of poverty is rich in potential mechanisms. We attempt to capture the most important of these in a simple recursive model. The data for this analysis come from the Panel Study of Income Dynamics (PSID) collected between 1968-2011 (Institute for Social Research,2015) . The PSID is the longest running panel survey of families conducted since 1968 on an annual basis until 1997 and bi-annually since. The data is multigenerational, with each individual connected to an original 1968 family by birth or marriage. In total the PSID data used in this study covers a 43-year span. Of these, we use 22 years of data counting back in two-year increments from 2011 until 1971 and including the first survey in 1968 along with the confidential census tract information for each family in the surveyed years provided by PSID.

We examine the relationship between the persistence of childhood poverty and the persistence of poverty in adulthood defined here as age 18 and above. Since our intent is to examine the persistence of poverty (or a long run absence of it), we focus on respondents that have been observed at least three times as children under the age of 18 and are also observed three or more times as adults at ages 18 or above. To be included in the analysis, observations in adulthood must have been as "head" or "wife" of a PSID family at least once. This means subjects have at some point started life on their own separate from their parent's family unit. The repeated observations both in childhood and adulthood allow us to characterize poverty experiences over a minimum of six years for each subject in our analysis. We examine only subjects whose residences were in an urban area in 50% or more of observations. The study only includes Black or White respondents since the percentage of

respondents of other racial and ethnic groups with long intergenerational history is limited in the data. We determine being above or below the poverty line after adjusting income to reflect price differences between Metropolitan Statistical Areas (MSAs) using the Implicit Regional Price Deflator. MSA incomes and tract average income are also adjusted similarly and all values are expressed in 2011 dollars.

These criteria allow us to use data for 4,600 individuals ranging in age between 22 to 55 at last observation for the analysis of poverty above age 18. These individuals are connected to 1,493 original 1968 families. While the last observation for a majority of the subjects in this analysis is 2011 (69.7%), the last observation for some in the data was as early as 1979. About 27% of respondents were in families with incomes below the 150% of the federally defined poverty threshold (150PT hereafter) at last observation. Table 1 provides a summary of the data.

**Table 1: Data Summary for Subjects in the Analysis**

Variable	Description	Mean	Std. Dev.
Childhood Place Prosperity			
MI	MSA average household income before 18 (1,000)	67.95	10.93
TIB18	Tract average household income before 18 (1,000)	56.17	23.75
Poverty			
PB18	Percent of observations below 150PT before age 18	37.24	39.44
PA18	Percent of observations below 150PT at age 18 or later	28.38	31.89
Education			
Ed	Maximum education	13.65	2.00
Other Variables (Proportions)			
Black	Black		0.49
Sex	Sex (Male = 1)		0.46
MomLHS	Mother's Education is below high school		0.21
MomHS	Mother's Education is high school graduate		0.38
MomGHS	Mother's Education is above high school		0.41
18_1970s	Turned 18 in the 70s		0.24
18_1980s	Turned 18 in the 80s		0.31
18_1990s	Turned 18 in the 90s		0.25
18_2000s	Turned 18 in the 2000s		0.2
Total Observations			4490

Notice the childhood neighborhood (tract) prosperity variable, *TIB18*, is measured by the tract average household income before 18. Tract income is meant here as a proxy for the complex of quality of neighborhood variables experienced in childhood. All income data are

taken from U.S. decennial Censuses. Income averages are calculated under the assumption that incomes remain constant for five years before the census and five years after.

Clearly the variables that influence adult poverty are themselves highly intercorrelated. The advantage of using a recursive model to study this process is that such an approach explicitly models the pathways of such intercorrelations in a temporal framework<sup>2</sup>. This structure allows straightforward comparisons of the direct importance of the key variables as well as their indirect influence as mediated by other variables. In short, a recursive structure allows us to gage the relative importance of various variables in the chain of the model.

In an effort to model the factors that influence adult poverty and the relative importance of place variables and demographic variables we adopt the following recursive model:

$$PB18 = \alpha_1 + \beta_1 MI + \gamma_1 B + \delta_1 MomHS + \lambda_1 MomGHS + \epsilon_1 \quad (1)$$

$$TIB18 = \alpha_2 + \beta_2 MI + \gamma_2 B + \delta_2 MomHS + \lambda_2 MomGHS + \tau_2 PB18 + \epsilon_2 \quad (2)$$

$$Ed = \alpha_3 + \beta_3 MI + \gamma_3 B + \delta_3 MomHS + \lambda_3 MomGHS + \tau_3 PB18 + \rho_3 TIB18 + \omega_3 S + \epsilon_3 \quad (3)$$

$$PA18 = \alpha_4 + \beta_4 MI + \gamma_4 B + \delta_4 MomHS + \lambda_4 MomGHS + \tau_4 PB18 + \rho_4 TIB18 + \omega_4 S + \pi_4 Ed + \epsilon_4 \quad (4)$$

where *PB18* is percent of reported child (below 18) surveys in poverty, *TIB18* is childhood neighborhood (tract) prosperity, *Ed* is highest level of education completed, *PA18* is percent of reported adult surveys in poverty, *MI* is income of child metropolitan area, *B* is a dummy variable for black, *MomHS* is a dummy variable that mother completed high school, *MomGHS* is a dummy variable that mother's education greater than high school and *S* is sex. In addition, all equations include dummy variables for the decade in which the individual reached 18 as well as the census region in which most of the childhood observations were made. All variables are standardized to a standard deviation of one. Throughout the model, metropolitan area income, race, and mother's education are taken as exogenous variables.

The basic logic of the model is that adult poverty (Equation (4)) is influenced directly by three place variables (income of child metropolitan area (*MI*), childhood neighborhood tract prosperity (*TIB*) and regional dummies). In this equation we can compare these direct effects to those of family demographic characteristics (mother's education (*MomHS* and *MomGHS*) and race (*B*)), childhood poverty (*PB18*), and education (*Ed*)<sup>3</sup>. But the literature emphasizes that the impacts of place variables as well as child poverty are largely

<sup>2</sup>It is assumed that the temporal structure allows only one-way relationships between each of the endogenous variables. If in addition the error terms of the equations are uncorrelated then OLS delivers consistent causal estimates. Re-estimating the equations using seemingly unrelated regression technique has no noticeable effect on the empirical results.

<sup>3</sup>Two other variables, marital status and family size have also been widely mentioned in the poverty literature. To include these in the present model would greatly complicate its structure. Neither of these variables could

mediated by education. Equation (3) with education as the dependent variable allows us to explicitly measure these indirect effects. Equation (2) models the determination of neighborhood tract prosperity ( $TIB18$ ) through a sorting process. Metropolitan income ( $MI$ ) and regional dummies act in this equation as general shifters. From the perspective of a child's family, then, neighborhood characteristics and specifically neighborhood income level are "chosen" based on that household's tastes and income. Tastes here are captured in the exogenous household variables (mother's education and race).  $PB18$  plays the role of household income. A number of urban economic models suggest that such a choice mechanism will result in substantial income sorting (Becker and Murphy (2000), Ch. 5 and Bayer and McMillan (2012)). Notice the fact that a neighborhood's income is the average of its household incomes, does not affect the logic of causality here. From a single household's perspective, a metro area's array of neighborhood incomes is exogenous. Neighborhood income "becomes" endogenous only through the mechanism of choice<sup>4</sup>. Equation (2) allows us to trace the extent to which the effects of  $TIB18$  are mediating  $PB18$ . Equation (1) then gives us insight into whether childhood metropolitan income levels have a major influence on childhood poverty, i.e. the extent to which childhood poverty is acting as a mediator for metropolitan income characteristics<sup>5</sup>.

More specifically, the direct effects of place prosperity are measured by  $\beta_4$ , the coefficient of prosperity of childhood metropolitan area, and  $\rho_4$ , the coefficient of childhood neighborhood prosperity in Equation (4). Indirect effects of childhood metropolitan prosperity can be found by tracing back through the education equation ( $\beta_3 \rightarrow \pi_4$ ), the neighborhood poverty equation ( $\beta_2 \rightarrow \rho_3 \rightarrow \pi_4$  and  $\beta_2 \rightarrow \rho_4$ ) and finally the childhood poverty equation ( $\beta_1 \rightarrow \tau_2 \rightarrow \rho_3 \rightarrow \pi_4$ ,  $\beta_1 \rightarrow \tau_3 \rightarrow \pi_4$ ,  $\beta_1 \rightarrow \tau_2 \rightarrow \rho_4$ , and  $\beta_1 \rightarrow \tau_4$ ). Given the temporal structure of the model, the indirect effects of neighborhood prosperity only work through education ( $\rho_3 \rightarrow \pi_4$ ). This link has been particularly emphasized in the literature. These paths of indirect effect are summarized in Table 2.

It should also be kept in mind that a portion of the neighborhood poverty effects represent mediated effects of family poverty demographics and other exogenous variables. We return to this point below.

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reasonably be treated as exogenous to poverty status. Rather than attempt to disentangle the simultaneous effects, we have left these variables out of the simple recursive model used here. Instead, we focus on education which is generally determined prior to the adult income measure. Our working assumption is that adding these variables to a more complete model would cause little change in the relative importance of place-based variables and the other variables.

<sup>4</sup>Also notice the model explicitly rules out feedback of a child's neighborhood income on childhood poverty. While parents' income earning capacity might be enhanced by externalities in more prosperous neighborhoods, such effects are likely to be minimal in comparison to the standard choice mechanism outlined in the text.

<sup>5</sup>Here, mother's marital status and childhood family size are correlated with childhood poverty. For much the same reasons as discussed in footnote 3, we have left these variables out of the analysis. Including them would greatly add to model complexity. Again, we doubt that complexity would have any substantial effect on our conclusions.

**Table 2: Paths of Indirect Place Effects****Childhood Income Indirect Effects**

1. Childhood MSA Income  $\rightarrow$  Education ( $\beta_3$ )  $\rightarrow$  Adult Poverty ( $\pi_4$ )
2. Childhood MSA Income  $\rightarrow$  Childhood Tract Income ( $\beta_2$ )  $\rightarrow$  Education ( $\rho_3$ )  $\rightarrow$  Adult Poverty ( $\pi_4$ )
3. Childhood MSA Income  $\rightarrow$  Childhood Poverty ( $\beta_1$ )  $\rightarrow$  Childhood Tract Income ( $\tau_2$ )  $\rightarrow$  Education ( $\rho_3$ )  $\rightarrow$  Adult Poverty ( $\pi_4$ )
4. Childhood MSA Income  $\rightarrow$  Childhood Poverty ( $\beta_1$ )  $\rightarrow$  Education ( $\tau_3$ )  $\rightarrow$  Adult Poverty ( $\pi_4$ )
5. Childhood MSA Income  $\rightarrow$  Childhood Tract Income ( $\beta_2$ )  $\rightarrow$  Adult Poverty ( $\rho_4$ )
6. Childhood MSA Income  $\rightarrow$  Childhood Poverty ( $\beta_1$ )  $\rightarrow$  Childhood Tract Income ( $\tau_2$ )  $\rightarrow$  Adult Poverty ( $\rho_4$ )
7. Childhood MSA Income  $\rightarrow$  Childhood Poverty ( $\beta_1$ )  $\rightarrow$  Adult Poverty ( $\rho_4$ )

**Childhood Tract Income Indirect Effects**

1. Childhood Tract Income  $\rightarrow$  Education ( $\rho_3$ )  $\rightarrow$  Adult Income ( $\pi_4$ )

## 4. RESULTS

### 4.1. Direct Effects of Place Prosperity

Estimates for the direct determinants of the time in adult poverty (Equation 4) are shown in Table 3. The equation explains about 47% of the variance in the dependent variable. The direct coefficient for the most important place-base variable, tract average household income in childhood, is -0.038, significant at the 1% level. Growing up in a tract with one standard deviation higher average household income reduces adult time below poverty by about 4%. The coefficient for the second place-based variable, average metropolitan household income in childhood, is insignificant and has an unexpected positive effect. Other things equal a one standard deviation increase in childhood MSA income raises share of adult time below 150% of the poverty level by 1%. This second coefficient has the “wrong” sign. The first coefficient while significant does not support the impression of a large neighborhood effect suggested in the literature on place prosperity and poverty. Indeed, several of the other included direct variables have much stronger impacts on adult poverty. The largest of these is experience of childhood poverty. A standard deviation increase in this variable raises the adult poverty variable by 0.39 standard deviations. The second largest of these is year of school completed, where a standard deviation increase in this variable reduces the adult poverty measure by 0.25 standard deviations. Mother’s education and race also weigh in heavily in this equation.

We had hypothesized that the period at which one starts to participate in the labor force is important to poverty outcomes because it proxies for a range of national economic conditions. Poverty levels for those who turned 18 in the 1980s were about the same as those who turned 18 in the 1970s. The estimate for the 1990s was a bit higher, while for those turning 18 in the 2000s the estimate was considerably higher. This last group is very young and hence less well established in the labor market. The census region in which children

**Table 3: Determinants of Adult Poverty: Direct Effects**

Variable		Direct Effect
Childhood place prosperity	MSA Income	0.010
	Census Tract Income	-0.038***
Childhood Poverty		0.386***
Respondent's highest education		-0.248***
Mother's highest education	High school	-0.010***
	Greater than high sch.	-0.069***
Race	Black	0.157***
Decade turned 18	1980-1989	0.016
	1990-1999	0.050***
	2000-x	0.099***
Regions	Northeast	-0.051***
	South	-0.060***
	West	-0.004
Overall $R^2 = 0.65$ , Equation 4 $R^2 = 0.47$		

spent the most time also had some impact. Adult poverty levels for those who grew up in the Northeast and South were lower than those who grew up in the West or Midwest. Finally, women are more likely to be poor as adults.

#### 4.2. Indirect Effects of Place Prosperity

The relatively small direct effects of the childhood place prosperity variables do not mean those variables have small total effects on adult poverty. Conceivably the place effects might be mediated by other endogenous variables. Indeed, it is just such mediated effects that are emphasized in the literature. As presented in Table 2, the childhood metropolitan income variable has several possible paths of this type. Seven distinct possible paths are present in our model. When we add these together, we get the overall indirect effect for MSA income in Table 4 which shows the expected negative sign and is highly significant. The total effect (equal to the sum of the direct and indirect effect) is now negative, but still falls far short of significance. Childhood metropolitan income seems to have little effect on adult poverty.

The indirect effects of childhood neighborhood income on adult poverty are significantly negative as expected. Adding this to the direct effect gives a total effect that suggests a one standard deviation increase in childhood tract household income reduces adult poverty by just over 8%. But notice indirect effects also add to the magnitude of other variables as well. Especially large indirect effects are found for the black variable. A one standard deviation increase in this variable now raises its total effect on adult poverty share to 40% of a standard deviation. Similarly, mother's education gains influence. These are working through paths involving childhood poverty and/or tract poverty and/or education.

The intermediate effects of childhood neighborhood income on adult poverty are quite modest. The only path for this effect is through education. The tract poverty variable has a sizable effect on educational achievement. This standardized coefficient is about the same size as the direct standardized coefficient for childhood poverty. We come back to these findings in our discussion section.

**Table 4: Determinants of Adult Poverty: Indirect Effects**

	Variable	Indirect Effect
Childhood place prosperity	MSA Income	-0.027***
	Census Tract Income	-0.045***
Childhood Poverty		0.066***
Mother's highest education	High school	-0.136***
	Greater than high sch.	-0.266***
Race	Black	0.277***
Decade turned 18	1980-1989	0.006
	1990-1999	-0.009
	2000-x	0.021***
Regions	Northeast	-0.010
	South	-0.005
	West	-0.020***
Overall $R^2 = 0.65$ , Equation 4 $R^2 = 0.47$		

### 4.3. Place Prosperity as a Mediator

Table 5 gives the most important mediation paths. Metropolitan income is taken as an exogenous variable and hence while it has indirect effects (i.e. is mediated) it doesn't act as a mediator for any other variable. On the other hand, since childhood tract income is an endogenous variable, it does serve as a mediator for several exogenous variables. This means that some portion of this variable's total effect is put in motion by its dependence on other variables in the system.

As observed above, the tract income variable does work through education. Here we can reasonably ask the question: what proportion of the exogenous variables' indirect effects are mediated through the tract income variable? Realizing that we are double counting, we might also ask the extent to which the childhood poverty variable is mediated by childhood tract income. Not surprisingly, a child's experience of household poverty has a strong negative influence on the income of their neighborhood. The two variables have a simple correlation of -.51. Similarly, both mother's education and race have a strong effect on neighborhood income. In all three of these cases neighborhood prosperity is mediating important exogenous variables. But since the total effects of neighborhood prosperity on downstream variables

remain relatively small, these mediation effects do not play a strong role in determining adult poverty.

**Table 5: Paths of Mediation Involving Childhood Tract Income**

1. Childhood MSA Income → Childhood Tract Income → Adult Poverty
2. Childhood MSA Income → Childhood Tract Income → Education → Adult Poverty
3. Childhood Poverty → Childhood Tract Income → Education → Adult Poverty
4. Childhood MSA Income → Childhood Tract Income → Education → Adult Poverty
5. Black → Childhood Tract Income → Adult Poverty
6. Black → Childhood Tract Income → Education → Adult Poverty
7. Mother's Education → Childhood Tract Income → Adult Poverty
8. Mother's Education → Childhood Tract Income → Education → Adult Poverty

## 5. DISCUSSION

Place prosperity experienced in childhood at both the MSA level and the Census Tract level influence the extent of adult poverty. These direct, indirect and mediated effects are consistent with much literature on the intergenerational transmission of poverty. However, these effects are modest when compared to the influence of demographic characteristics such as early childhood poverty, race and mother's education. These demographics have powerful direct effects on childhood poverty and adult poverty, as well as strong indirect effects on the latter. Higher incidence of poverty in childhood continues to negatively impact outcomes into adulthood. Put somewhat differently, even when children in poor families grow up in more prosperous MSAs and neighborhoods they are still likely to experience adult poverty. Yes, place may matter, but it matters much less than the reality of childhood poverty.

Education (or rather the lack of education) is a particularly strong determinant of adult poverty. While childhood poverty has a very strong effect on education, neither metropolitan prosperity nor tract prosperity comes close to the same influence. Yet this is a path suggested by a number of researchers. Poor children growing up in more prosperous places do complete more years of schooling, but again their poverty has stronger counter effects.

Overall, our analysis suggests that policies which raise the conditions of households, by increasing incomes or enhancing educational attainment, may be more fruitful at reducing adult poverty than those focused on areas. Investments in ensuring better education attainment can have multigenerational impacts on reducing adult poverty as shown by the importance of both a mother's education and a child's education on reducing adult poverty. It has also long been argued that income transfers can reduce the years lived in poverty in childhood, which in turn may lower the incidence of adult poverty experience and have ripple effects on successive generations. In recent years a policy emphasis on place prosperity has gained attention. For example, much interest has been shown in encouraging poor family mobility. The results here suggest caution in pursuing these types of programs. Place prosperity experienced in childhood has only modest effects on adult poverty.

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