Differential Opportunity for Men from Low-Income Backgrounds across Pennsylvania

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Abstract

This study examines the place-based differences in opportunity experienced by men from low-income backgrounds across U.S. and Pennsylvania counties. Our quantitative findings suggest that U.S. and Pennsylvania counties are very unequal in terms of how men raised in low-income families fare in adulthood on measures of upward mobility, household income, college graduation, incarceration, and marriage. A variety of county-level measures of concentrated disadvantage were associated with these outcomes, including county household income, poverty rate, degree of racial segregation, college graduation rate, single parenthood rate, social capital rate, and job growth rate. Additionally, anonymous qualitative data from phone interviews with county commissioners from some of the Pennsylvania counties that struggled the most in our analysis helped to confirm our findings with valuable on-the-ground perspectives. We discuss these findings and their implications for equality of opportunity in the U.S. and the state of Pennsylvania.

Keywords

Concentrated disadvantage, low income, mobility, opportunity, Pennsylvania, residential contexts

Introduction

The United States is incredibly unequal. The top 10 percent of Americans owns almost three-quarters (73%) of all wealth and earns nearly half (47%) of all income (WID 2020). The top one percent earns 40 percent more in a single week than the bottom fifth takes home in a year (Stiglitz 2013, p. 5). Among 36 OECD countries, the U.S. ranks very poorly on a number of measures, including overall poverty (36th), child poverty (33rd), economic inequality (33rd), overall social spending (21st), and family benefits public spending (35th) (OECD 2020).

This inequality is leaving 'the American social fabric, and the country's economic sustainability, fraying at the edges' (Stiglitz 2013, p. 2). Men without a college degree have become increasingly economically insecure since the 1970s (Mishel et. al. 2012; Putnam 2015). The wealth gap between those with and without a college education has increased significantly over the past few decades—wealth has increased for the college educated, and declined somewhat for those with a high school degree or less. Americans are increasingly marrying people with similar economic and educational characteristics (Putnam 2015). The most affluent American women outlive the poorest by a decade, while the richest American men outlive the

poorest by 15 years. In fact, the life expectancies of the poorest men in the U.S. are comparable to those of men in Sudan and Pakistan (Chetty et. al. 2016b).

The intergenerational earnings elasticity (IGE)[1] in the U.S. is at the top end among OECD countries (Mishel et. al. 2012)—it has recently been estimated to be as high as 0.60 or higher (Mazumder 2015)—which suggests very unequal opportunities for American children. Only 48 percent of children born in the bottom income decile are meeting key benchmarks in early childhood, compared to 78 percent born in the top decile, a 30 percentage point gap—a gap that *worsens* by early adulthood (38% versus 74%, or a 36 percentage point gap) (Sawhill et. al. 2012, p. 7). Seventy-percent of American children born in the bottom family income quintile will stay in the bottom two quintiles as adults, while only four percent will rise to the top quintile (Pew Charitable Trusts 2012, p. 6). This is akin to a hypothetical low-income kindergarten cohort of 25 students seeing 17 or 18 of their classmates still stuck near the bottom many years later at their high school reunion, with only one classmate rising to the top. And the achievement gap between high- and low-income American children born in 2001 is 30-40 percent larger than it was just 25 years earlier (Reardon 2011).

Substantial gaps exist between the social classes in a number of other areas as well, including happiness, college graduation, health and health insurance coverage, church attendance, civic engagement, social capital, trust, incarceration, marriage and divorce, single parenthood, age of first birth, parenting skills, and even family dinners (Mishel et. al. 2012; Putnam 2015; Rabuy and Kopf 2015).

Racial and gender inequalities abound as well. On average, African American households earn around 60 percent of the income of White households, and own only about ten percent of the wealth (Pew Research Center 2016; Ingraham 2019; McIntosh et. al. 2020). Less than half (43%) of African Americans own their own homes, compared to almost three quarters (72%) of Whites. Only 35 percent of African American adults are married, compared to 66 percent of Whites, and a slight majority of African American children live in a single-parent household, compared to only 19 percent of Whites (Pew Research Center 2016). While most middle-class White children either remain in the middle class or rise as adults, a majority of middle-class Black children (56%) will be *downwardly mobile* (Reeves 2013). And African Americans are vastly overrepresented in U.S. prisons and are treated unequally at every stage of the criminal justice process (Alexander 2010; Bonilla-Silva 2014; Reiman and Leighton 2017).

The U.S. ranks 29th out of 35 OECD countries with available data on female representation in politics (OECD 2020). In 2019, the *Fortune 500* set a record for the proportion of its companies headed by female CEOs—at only seven percent (Zillman 2019). Some studies suggest that even in married dual-earner couples with children, women still do at least 50 percent more housework and childcare a week than their husbands (Yavorsky et. al. 2015, p. 670)—contributing to the motherhood penalty (also called the child penalty) women face when they become mothers, forcing them to take their foot off of the career pedal somewhat as they are disproportionately responsible for balancing work and family. Women face many obstacles in

[1] Here is an explanation of the IGE from Lawrence Mishel and his colleagues: "Economists measure the extent of intergenerational mobility by calculating the correlation between income or earnings of parents and that of their children once they grow up and earn their own income—this is known as intergenerational elasticity, or IGE. . . The higher the IGE, the greater the influence of one's birth circumstances on later life position" (Mishel et. al. 2012, p. 150). IGE values range from 0 to 1. A value of 1 would suggest extreme rigidity—children earning basically the same exact incomes as their parents. A value of 0 would suggest virtually no relationship between the earnings of parents and children.

the workplace, from the glass ceiling to discrimination to sexual harassment and more (Moss-Racusin et. al. 2012; Langer 2017; Huang et. al. 2019). And despite significant progress in recent decades, the gender pay gap nevertheless persists, with full-time female workers earning between 77-85 percent of what their male counterparts earn, depending upon the analysis (Blau and Kahn 2017; Graf et. al. 2017; Gould 2019).

In addition to these aforementioned inequalities, Americans are increasingly experiencing inequality of place. As Sampson (2019) notes, 'income segregation has deepened the neighbourhood divide in cities across the country' (p. 6). Data from across the U.S. suggest that American neighborhoods are becoming more segregated by income. Bischoff and Reardon (2014) found that the proportion of families living in poor or affluent neighborhoods rose significantly over the last 40 years, while the proportion of families living in middle-income neighborhoods declined significantly. Research suggests that even when Americans leave their neighborhoods throughout the week, those from advantaged and disadvantaged neighborhoods are largely visiting non-overlapping areas (Sampson 2019). As Putnam (2015) notes, this growing social class segregation is showing up in the opportunities available to American children:

> growing class segregation across neighborhoods, schools, marriages (and probably also civic associations, workplaces, and friendship circles) means that rich Americans and poor Americans are living, learning, and raising children in increasingly separate and unequal worlds, removing the stepping-stones to upward mobility (p. 41).

A significant amount of evidence suggests that inequality of place is highly racialized in the U.S., with most African American children being raised in areas of concentrated disadvantage, a rarity for White children—an unconscionable 78 percent of Black children grow up in highly-disadvantaged neighborhoods, compared to only five percent of White children (Sharkey 2009, p. 10). As Coates (2014) explains, in the U.S., 'the concentration of poverty has been paired with a concentration of melanin.' Or as Sampson (2019) notes, 'The spatial isolation of African Americans produces exposure to concentrated, cumulative, and compounded disadvantage, constituting a powerful form of racial disparity' (p. 8). A majority of Black families (67%) who start out in poor neighborhoods remain there in the next generation, compared to a minority (40%) of White families. Similarly, a minority of Black families (39%) who start out in affluent neighborhoods remain there in the next generation, compared to a majority (63%) of White families (Sharkey 2013, p. 38). And around half of Black families live in poor neighborhoods over consecutive generations, compared to only seven percent of White families (Sharkey 2013, p. 39).

Our own state of Pennsylvania[2] mirrors the country's inequalities in many ways. The Gini coefficient in PA, for instance, has been reported to be as high as 0.47, based on American Community Survey data (Kolmar 2018). Much of the state is also racially segregated—UCLA researchers, for instance, demonstrated that PA scores below average (and in some cases well below average) on a variety of measures of non-White students' exposure to White students (Orfield et. al. 2014).

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In this article, we explore some of the negative consequences of widespread inequality of place in the U.S. We mostly focus on our own state of Pennsylvania, and the place-based differences in life outcomes of men who came from similarly low-income backgrounds, but grew up in different counties with different residential contexts, and how this offered them differential opportunities to succeed as adults.

Literature Review

The Importance of Residential Contexts

Research suggests that place-based characteristics of neighborhoods and communities (henceforth 'residential contexts')[3] influence the type and quantity of risks and opportunities that residents are confronted with. These contexts are particularly influential in the life chances of children raised there. Important characteristics include institutions, social organization and norms, collective efficacy, socioeconomic profile, predominant family structures, peer networks, environmental burdens, labor markets, and marriage markets. As Sampson (2019) notes, 'neighbourhood contexts are important determinants of the quantity and quality of human behaviour in their own right' (p. 8). And as Putnam (2015) explains, 'researchers have steadily piled up evidence of how important social context, social institutions, and social networks—in short, our communities—remain for our well-being and our kids' opportunities' (p. 206). Children raised in disadvantaged residential contexts tend to have worse life outcomes compared to their more-advantaged counterparts on a variety of measures, including cognitive skills, academic performance, educational attainment, adult economic performance, social mobility, substance abuse, sexual behavior, teen pregnancy, mental and physical health, aggression and violence, deviance and criminal involvement, and victimization (Bronzaft and McCarthy 1975; Wilson 1987; Ransom and Pope 1992; Peeples and Loeber 1994; Wilson 1996; Evans and Maxwell 1997; Sampson et. al. 1999; Sampson et. al. 2002; Stansfield et. al. 2005; Brady et. al. 2008; Pebley and Sastry 2008; Sharkey 2009; Schwartz 2010; Sharkey 2010; Sharkey and Sampson 2010; Stoddard et. al. 2011; Wodtke et. al. 2011; Sampson 2012; Sharkey 2013; Chetty 2014; Chetty et. al. 2014; Sharkey and Faber 2014; Chetty et. al. 2015; Hamner et. al. 2015; Putnam 2015; Sharkey and Sampson 2015; Wolfers 2015; Rojas-Gaona et. al. 2016; Sampson and Winter 2016; Sampson 2019).

As but one example of the profound impact that residential contexts can have on children's outcomes, Wodtke and his colleagues (2011) found that living in disadvantaged neighborhoods over the course of one's childhood can significantly reduce the probability of high school graduation—growing up in the most disadvantaged quintile of neighborhoods instead of the most advantaged, for instance, reduced the probability of graduation from 96 to 76 percent for Black children in the study. The researchers noted that:

> Our results indicate that sustained exposure to disadvantaged neighborhoods—characterized by high poverty, unemployment, and welfare receipt; many female-headed households; and few well-educated adults—throughout the entire childhood life course has a devastating impact on the chances of graduating from high school (Wodtke et. al. 2011, p. 731).

[3] This wording comes from Sharkey and Faber 2014.

It is not just the characteristics of residential contexts which matter, but also at what point in children's lives they live there, how long they live there, which characteristics children are exposed to, and each individual child's degree of vulnerability to particular place-based characteristics (Sharkey and Faber 2014). Sharkey (2013), for instance, found that children performed best on tests of cognitive skills when neither they nor any of their parents were raised in a high-poverty neighborhood (these students scored well above average). Scores dropped significantly if the child or one of their parents (but not both the child and any of their parents) was raised in a high-poverty neighborhood, and then dropped considerably more if a child and at least one of their parents were raised in a high-poverty neighborhood (the last group was well below average) (Sharkey 2013, p. 119). Even after adjusting for a variety of factors, Sharkey found that the sizable remaining gaps represented the equivalent of missing three or four years of schooling.

Neighborhood and community institutions not only provide services, but also play an important role in socialization and skill development. These institutions include schools, childcare providers, healthcare providers, police, churches, social service providers, parks, and civic associations (Pebley and Sastry 2008; Sharkey and Faber 2014; Putnam 2015). Schools have received particular attention in the discourse of opportunity in the U.S. There are a variety of school-related factors that are important to consider. One is of course teacher effectiveness. Research suggests that the teachers found in high-performing low-poverty American schools, for instance, are often more experienced and effective than those found at low-performing high-poverty schools (Putnam 2015, p. 172-173).

Another school-related factor of particular importance is the composition of the student population. These populations are incredibly unequal across American schools—Putnam (2015, p. 170), for instance, demonstrates that suspensions are two and a half times more common and classroom problems are four times more common at high-poverty schools compared to low-poverty schools. Researchers examining the impact of student populations have focused on the way in which the expectations, aspirations, norms, behaviors, pressure, family resources, and parental involvement of one's peers rubs off on them. In some studies, students' test scores correlate more strongly with their classmates' backgrounds than with their own (Putnam 2015, p. 165). And Chetty and his colleagues (2014, Online Appendix Table VIII) found that test score percentiles (correlation = 0.59) and high school dropout rates (correlation = -0.57) of students were some of the strongest correlates of intergenerational mobility across American commuting zones.

Inequalities in our home state of Pennsylvania are illustrative. When comparing one disadvantaged high school in Philadelphia with an advantaged one only a few miles away in the suburbs, data reveal substantial gaps in English proficiency (9% compared to 95%), math proficiency (10% to 88%), science proficiency (4% to 92%), regular attendance (48% to 91%), post-secondary education transition (26% to 86%), percent gifted (0% to 12%), special education (35% to 14%), economic disadvantage (76% to 12%), and racial segregation (92% non-White to 32%). Additionally, there is a $14,755 gap in per-pupil expenditures (Future Ready PA Index 2020). Unfortunately, such gaps between schools within driving distance of each other are not hard to find across Pennsylvania, and indeed across the entire country.

There are far too many studies of school inequality to summarize here, but a few are illustrative. Reardon (2016) found a 0.78 correlation between school district socioeconomic status and average academic achievement across the U.S., with 'students in many of the most advantaged school districts [scoring] more than four grade levels above those of students in the most

disadvantaged districts' (p. 7). Schwartz (2010) analyzed the longitudinal school performance of 850 students living in public housing in the same county but who had been randomly assigned to housing in different neighborhoods and therefore randomly assigned to different schools (preventing self-selection). She found that the children who attended the school district's most-advantaged schools performed far better in math and reading than their counterparts assigned to the district's least-advantaged schools—by the end of elementary school, for instance, the initial math achievement gap between public housing children and their more-advantaged peers in the most-advantaged schools was cut in half.

Social organization refers to the trust, social cohesion, shared expectations, normative environment, social support, adult role models and mentors, social capital, degree of social control, and level of isolation found in different residential contexts. These characteristics contribute to residents' happiness and well-being, educational and economic outcomes, access to resources and services, stress and mental health, criminal behavior and violence, and substance abuse (Wilson 1987, 1996; Sampson et. al. 1999; Sampson et. al. 2002; Pebley and Sastry 2008; Putnam 2015). Underscoring the impact of community adult role models on children's development, Sampson (2019) notes that, 'Seemingly banal acts such as the collective supervision of children and adult mentorship add up to make a difference' (p. 12).

Putnam (2015) provides informative examples of how neighborhoods with lower-income and less-educated neighbors offer less social capital, mentoring, and trust to children residing there. In *Our Kids* (2015, p. 209) he demonstrated substantial gaps between high school educated and college educated parents in social ties with college professors (21% compared to 71%), lawyers (50% to 82%), and CEOs (22% to 44%), as but a few examples.[4] He notes that 64 percent of high-SES children have non-family mentors, compared to less than 40 percent of low-SES children (Putnam 2015, p. 215). He also explains that residents in affluent neighborhoods are more than twice as likely to trust their neighbors as residents in poor neighborhoods (Putnam 2015, p. 219).

Local labor and marriage markets can constrain residents' chances of success—providing them low-quantity and/or low-quality employment and marriage prospects—or they can enable residents' success by providing them with high-quantity and/or high-quality prospects. Neighborhoods and communities with gainfully-employed and happily-married people are not only healthier for adults, but also for children (Pebley and Sastry 2008).

There are a variety of notable studies on inequalities in environmental burdens across American residential contexts. Ransom and Pope (1992), for instance, found an association between air pollution and school absenteeism. Other studies have found that children who are exposed to excessive noise from highway traffic, airplanes, and trains tend to have worse reading skills and memory (Bronzaft and McCarthy 1975; Evans and Maxwell 1997; Stansfeld et. al. 2005). In one of these studies (Bronzaft and McCarthy 1975), data from a school in New York City revealed that students in some of the classrooms closest to noise from a nearby elevated train were 3-4 months behind their peers on the quieter side of school. Summarizing research he conducted with Winter (2016), Sampson (2019) explains the connection they found between the racial composition of Chicago neighborhoods and exposure to lead:

[4] Precise data provided to us through direct personal correspondence with Robert Putnam.

> Drawing on comprehensive data from over one million blood tests administered to Chicago children from 1995 to 2013 and matched to over 2,300 geographic block groups, we found that black and Hispanic neighbourhoods exhibited extraordinarily high rates of lead toxicity compared with white neighbourhoods, in some cases with prevalence rates topping 90% of the child population (p. 14).

Residential Contexts and Life Chances

Although residential contexts impact a wide range of life chances, some particularly important outcomes that we want to focus on are college graduation, marriage, economic performance, upward mobility, and violence.

A recent re-analysis (Chetty et. al. 2015) of data from the Moving to Opportunity (MTO) experiment—a 1990s federal government experiment which gave a number of American families who were living in public housing a voucher to move to better neighborhoods in order to see if it improved their lives—found that neighborhoods matter a great deal for children's life chances. This new analysis showed significant gains in children's rates of college graduation, likelihood of marriage, economic performance, and the quality of their eventual adult neighborhood of residence. Children whose parents moved them to low-poverty areas when they were young (prior to age 13), compared to children their age in the control group who did not move, were more likely to graduate college, live in better neighborhoods as adults, and have much better economic outcomes later in life. These children ended up earning around a third (31%) more than their control-group counterparts, and their overall additional earnings totaled close to $100,000 (Wolfers 2015). Female children who were moved to low-poverty neighborhoods were more likely to marry in adulthood and less likely to become single parents. The duration of exposure to a better neighborhood mattered in how much of a positive impact children enjoyed. Additionally, the social and economic gains from these moves likely offset the costs of the vouchers (Chetty et. al. 2015; Wolfers 2015). As Wolfers (2015) summarizes, this new analysis:

> suggests that the next generation—the grandchildren of the winners of this lottery—are more likely to be raised by two parents, to enjoy higher family incomes and to spend their entire childhood in better neighborhoods. That is, the gains from this policy experiment are likely to persist over several generations.

Like Chetty's work, a number of other studies have also shown that moving children out of disadvantaged and dangerous residential contexts and into more advantaged and less dangerous ones improves their life chances in a variety of important ways (Sharkey and Faber 2014).

Perhaps one of the more notable studies of the impact of residential contexts on children's life chances was a 2014 paper by Chetty and his colleagues. In this paper, the authors calculated the variables most strongly associated with differences in upward mobility across American commuting zones. The variation was significant—children were nearly three times more likely to rise from the bottom to the top quintile in San Jose, CA, for instance, compared to Charlotte, NC (Chetty et. al. 2014, Table III). Some of the strongest correlates of upward mobility across American commuting zones were fraction of children with single mothers (-0.76), social capital (0.64), test score percentile (0.59), income inequality (-0.58), fraction Black residents (-0.58), high school dropout rate (-0.57), fraction married (0.57), and fraction religious (0.52) (Chetty et. al. 2014, Online Appendix Table VIII). Chetty and his colleagues found that a community's

single parenthood rate was not only strongly correlated with upward mobility for all children (-0.76), but also for children *who had married parents themselves* (-0.66) (2014, Online Appendix Figure XII). Summarizing this work, Chetty (2014) explained:

> we find a strong negative correlation between standard measures of racial and income segregation and upward mobility. . . These findings lead us to identify segregation as the first of five major factors that are strongly correlated with mobility. The second factor we explore is inequality. [Commuting zones] with larger Gini coefficients have less upward mobility, consistent with the 'Great Gatsby curve'. . . Third, proxies for the quality of the K-12 school system are also correlated with mobility. . . Fourth, social capital indices—which are proxies for the strength of social networks and community involvement in an area—are very strongly correlated with mobility. . . Finally, the strongest predictors of upward mobility are measures of family structure such as the fraction of single parents in the area (p. 5-6).

Residential Contexts and Violence

The risk one will commit or be a victim of acts of aggression and/or violence is also impacted in important ways by residential contexts, as 'concentrated disadvantage remains a strong predictor of violent crime' (Sampson 2019, p. 13). There are a number of notable studies, of which the following are but a small sample.

Peeples and Loeber (1994) found that young African American males were more frequently and more seriously delinquent than their White counterparts, until the researchers controlled for neighborhood characteristics (including significant differences in neighborhood poverty, welfare receipt, single parenthood, and unemployment), at which point the delinquent behaviors of these groups proved to be very similar. Commenting on this phenomenon,[5] Sampson (2019) notes that, 'racial disparities in violent crime rates [are] attributable in large part to the persistent structural disadvantages disproportionately concentrated in African American communities' (p. 12), and 'race is not a direct cause of violence, but is rather a marker for the cluster of social and material disadvantages that both follow from and constitute racial status in America' (p. 13).

Hamner and her colleagues (2015) found a positive association between exposure to community violence and both reactive and proactive aggression among adolescents. Stoddard and her colleagues (2011) found that children who experienced hopelessness—which was impacted by neighborhood characteristics—were more likely to commit violence with a weapon when they grew older. Brady and her colleagues (2008) found an association between exposure to community violence during middle adolescence and serious violent behavior during late adolescence.

In *Stuck in Place*, Sharkey (2013) mapped homicides across Chicago, finding a 'strikingly visible' (p. 30) association between neighborhood poverty, racial segregation, and homicide:

> the concentration of violence goes hand in hand with the concentration of poverty. There is a remarkable spatial clustering of homicides in and around neighborhoods with high levels of poverty. . . there are entire sections of this violent city where the most

[5] Sampson is not commenting on this specific study but this phenomenon more generally.

extreme form of violence, a local homicide, is an unknown occurrence. There are other neighborhoods where homicides are a common feature of life. . . these maps provide perhaps the most vivid portrait of what living in areas of concentrated poverty can mean in America's cities (p. 30).

Sharkey and Sampson (2010) demonstrated that moving youth far from their disadvantaged neighborhoods was associated with a decrease in violent behavior. And studies have demonstrated a link between exposure to violence and children's cognitive development and health (Sharkey 2010; Sampson 2012; Sharkey and Sampson 2015; Sampson 2019).

Methods

This study was designed to further explore the impact of place on the chances of success in the U.S., focusing specifically on differential opportunity across the state of Pennsylvania. We focused on low-income men due to the important manner in which they illustrate differential opportunity in the U.S. Rising from a low-income background to the top 20 percent is a difficult feat, given the many disadvantages associated with being raised in a low-income household. By focusing on men who have similar disadvantages at the household level, we can see how these disadvantages play out very differently in different geographic locations—how men in some areas are much more likely to rise than men in others—thus homing in on the impact of place.

All quantitative data come from the publicly-accessible Opportunity Atlas database housed at Opportunity Insights (2020), which we downloaded and analyzed using SPSS statistical software. This database of anonymous federal tax return data and U.S. Census Bureau data allows researchers to examine the relationship between community of origin (and characteristics of these communities, such as family structure,[6] racial segregation,[7] household income, poverty rate, fraction college graduates, job growth rate, and social capital[8]) and adult outcomes (such as upward mobility,[9] household income, incarceration rate, marriage rate, and college graduation rate) for over 20 million Americans. Data is available by demographic subgroup, allowing researchers to explore where individuals born between 1978-1983 with similar characteristics and backgrounds (such as race, gender, and parental income) ended up in their mid-thirties on a variety of outcomes, and how this is related to the different residential contexts of their childhoods.

For this study, we focused on the outcomes of men who were raised in low-income households (25th percentile). First, we ranked all 67 counties in Pennsylvania from best to worst on outcomes for men from low-income backgrounds on measures of upward mobility, household income, incarceration, marriage, and college graduation. Then we averaged county ranks across these five measures, creating one overall opportunity ranking. Finally, we calculated the county-level variables most strongly associated (bivariate correlations and multiple regression analyses) with opportunity both across U.S. counties[10] and across Pennsylvania counties specifically.

[6] Fraction single parents.

[7] This racial segregation measure is not optimal and is rather crude, but is all we had available. This variable is simply "fraction non-White."

[8] For a detailed explanation of this index variable, see Chetty et. al. 2014.

[9] Rising from a low-income background to the top 20% in household income.

[10] 3,141 counties plus Washington, D.C. in database, although not all counties have complete data.

Additionally, anonymous[11] qualitative data come from phone interviews we conducted with five county commissioners from some of the Pennsylvania counties that struggled the most in our analysis (all of these commissioners serve counties that scored in the ten lowest-opportunity counties in our analysis). All interviews were conducted in March 2020. These commissioners were asked to reflect on their county's opportunity score and the challenges that their constituents face. Interview data were qualitatively coded in order to discern important patterns and themes, using coding techniques similar to those articulated by Charmaz (2006).

Results

Correlates of Men's Outcomes across the United States

County-level measures of college graduation rates, degree of racial segregation, job growth rates, median household income, poverty rates, single parenthood rates, and social capital were all associated with opportunity for men from low-income backgrounds (see Table 1). Marriage was most strongly correlated with county racial segregation (-0.63, $p < .001$), county single parenthood (-0.59, $p < .001$) (see Figure 1), county poverty (-0.37, $p < .001$), and county social capital (0.35, $p < .001$). Upward mobility was most strongly correlated with county single parenthood (-0.45, $p < .001$), county poverty (-0.45, $p < .001$), and county household income (0.37, $p < .001$). Incarceration was most strongly correlated with county racial segregation (0.44, $p < .001$), county single parenthood (0.42, $p < .001$), and county poverty (0.30, $p < .001$). College graduation was most strongly correlated with county college graduation (0.44, $p < .001$) and county median household income (0.32, $p < .001$). And household income was most strongly correlated with county single parenthood (-0.56, $p < .001$), county poverty (-0.52, $p < .001$) (see Figure 2), and county racial segregation (-0.41, $p < .001$).

Multiple Regression Models Predicting Outcomes across the United States

We ran separate multiple regression models predicting our five outcomes for men from low-income backgrounds across the U.S. The following county-level independent variables were included in all models: poverty rate, median household income, college graduation rate, single parenthood rate, degree of racial segregation, job growth rate, and social capital.

[11] All identifying information has been changed or removed to the extent possible.

Table 1. Correlations between Origin County Characteristics and Low-Income Men's Adult Outcomes across the United States.

	Low-Income Men's Adult Outcomes				
	College	Incarceration	Income	Marriage	Mobility
Origin County Characteristics					
College grads	0.44***	0.01	0.12***	-0.08***	0.22***
Income	0.32***	-0.07***	0.27***	0.01	0.37***
Job growth	0.15***	0.03	0.14***	0.00	0.24***
Non-White	-0.10***	0.44***	-0.41***	-0.63***	-0.22***
Poverty	-0.26***	0.30***	-0.52***	-0.37***	-0.45***
Single parents	-0.24***	0.42***	-0.56***	-0.59***	-0.45***
Social capital	0.09***	-0.22***	0.27***	0.35***	0.13***

Note: *p < .05, **p < .01, ***p < .001.

The outcome of marriage was most strongly predicted by county single parenthood (Beta = -0.466, p < .001), followed by county racial segregation (Beta = -0.366, p < .001), county median household income (Beta = -0.364, p < .001), and county poverty (Beta = -0.195, p < .001). The model r square was 0.571 (p < .001) (see Appendix Table 2).

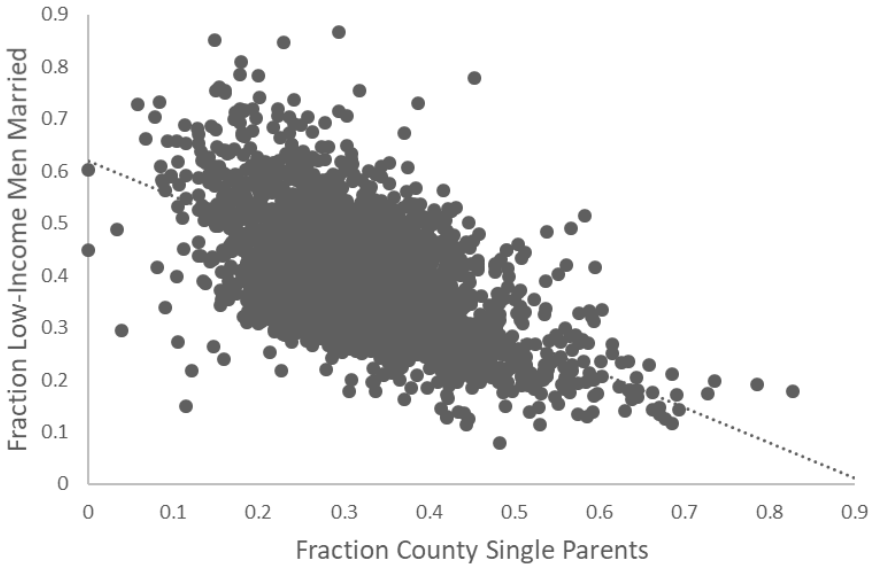
The outcome of household income was most strongly predicted by county poverty (Beta = -0.432, p < .001), followed by county single parenthood (Beta = -0.364, p < .001) and county median household income (Beta = -0.245, p < .001). The model r square was 0.388 (p < .001) (see Appendix Table 3).

The outcome of upward mobility was most strongly predicted by county poverty (Beta = -0.282, p < .001), followed by county single parenthood (Beta = -0.268, p < .001) and county social capital (Beta = -0.106, p < .001). The model r square was 0.268 (p < .001) (see Appendix Table 4).

The outcome of incarceration was most strongly predicted by county single parenthood (Beta = 0.305, p < .001), followed by county racial segregation (Beta = 0.276, p < .001), county median household income (Beta = 0.129, p < .001), and county poverty (Beta = 0.120, p < .001). The model r square was 0.260 (p < .001) (see Appendix Table 5).

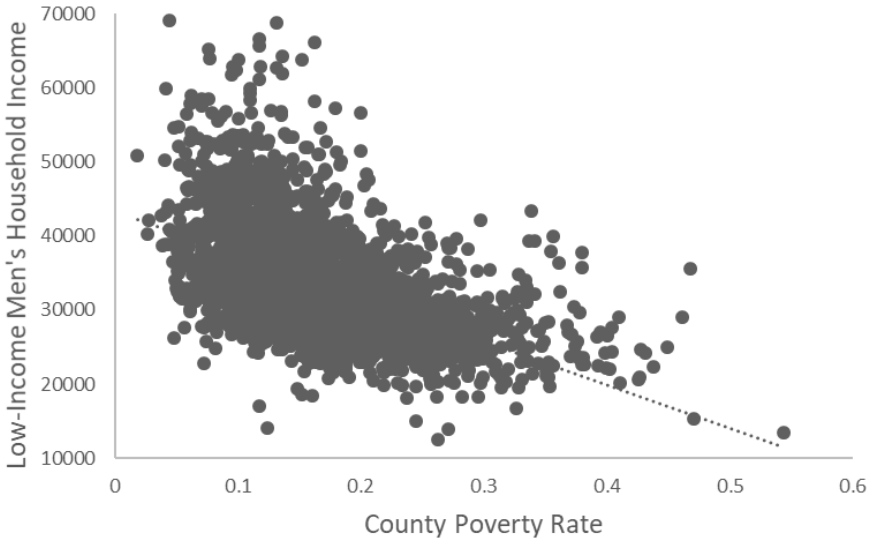
The outcome of college graduation was most strongly predicted by county college graduation (Beta = 0.494, p < .001), followed by county median household income (Beta = -0.200, p < .001), county poverty (Beta = -0.151, p < .001), and county single parenthood (Beta = -0.129, p < .001). The model r square was 0.220 (p < .001) (see Appendix Table 6).

Figure 1. Association between County Single Parenthood and Low-Income Men's Marriage Rates across United States.



Note: r = -0.59***.

Figure 2. Association between County Poverty and Low-Income Men's Household Income across United States.



Note: r = -0.52***.

Differential Opportunity across Pennsylvania Counties

Tables 2-6 show all 67 Pennsylvania counties ranked by outcomes for men from low-income backgrounds on measures of upward mobility, incarceration, marriage, median household income, and college graduation. We ranked all Pennsylvania counties from best to worst on all five of these outcomes and then averaged these ranks as an overall measure of opportunity for low-income men. Based on our analyses, men from low-income backgrounds had the best

opportunity in Indiana County, Tioga County, Clarion County, Wyoming County, Susquehanna County, and Westmoreland County (see Table 7).

We then ran a multiple regression model predicting counties' overall opportunity index rank (model r square = 0.372, $p < .001$) (see Appendix Table 1). The three statistically-significant independent variables were county single parenthood (Beta = 0.450, $p < .01$), county racial segregation (Beta = 0.415, $p < .05$), and county social capital (Beta = 0.357, $p < .05$). As an example of the size of these effects, the regression coefficient for single parenthood in this model represented a 6.7 rank drop in opportunity for every five percent increase in the county single parenthood rate.

When we ran multiple regression models predicting each individual outcome in PA, none of the county variables besides the aforementioned (single parenthood, racial segregation, and social capital) were statistically significant, except in one important instance. College graduation rates for men from low-income backgrounds were not predicted[12] by any variable except county college graduation (Beta = 0.714, $p < .01$). This association represents a 2.7 percent increase in college graduation rates for men from low-income backgrounds for every 5 percent increase in a county's college graduation rate in PA. This model explained 50 percent of the variance in college graduation rates for men from low-income backgrounds in PA (model $p < .001$).

On the Ground: Reflections from Pennsylvania County Commissioners

We conducted phone interviews with five Pennsylvania county commissioners who serve counties that scored in the ten lowest-opportunity counties in our analysis. We asked these commissioners to reflect on their county's opportunity score and tell us the specific types of challenges that their county constituents face. Interview data were analyzed using qualitative coding techniques (similar to Charmaz 2006) in order to discern important patterns and themes. Issues that were particularly important for these commissioners were limited affordable housing, limited healthcare access, educational problems, crime and drugs, limited healthy food options, community isolation, shortages of well-paying jobs, widespread single-parenthood, and blight.[13]

Commissioners expressed considerable concern about how isolated their communities were from important institutions and quality employment, as these quotes illustrate:

> The connection between transportation and jobs, quality jobs. If they don't want to be a housekeeper or something like that up here, then we have to make sure they have the appropriate transportation. If a manufacturer were to come in and not be along a public transport route, then that causes a problem (Commissioner #4).

> In our county there is a lack of employment. More people leave our county than in any other county in the state to find work, I think it's over 80%. They drive every day. They have to leave the county to get work. We're trying to look at more and more businesses to come in, do whatever we can (Commissioner #5).

[12] No other variable was statistically significant below .05.

[13] All identifying information has been changed or removed to the extent possible.

> Where they live, it's not really where the jobs are. Most of them can't afford vehicles, so they need public transportation. Our public transit system is actually financially struggling at a time when we need them to expand, they're actually looking at cutting back on routes. We may need them to merge with another city. I've been a proponent for a while that we really need to have a regional public transit system (Commissioner #4).

This isolation constrained residents' access to a variety of institutions, with medical services being of particular concern to commissioners. One noted that, 'Access to healthcare for low-income families is difficult in our county. To get to a hospital one way is 45 minutes, another is 30 minutes' (Commissioner #1). Another commented that, 'Access to mental health services in our county is pretty limited. We do have a facility, but it's only open a couple days a week' (Commissioner #2).

In addition to medical services, a common concern was access to quality grocery stores to provide healthy eating options to residents. Commissioners expressed a strong desire to bring in larger and higher-quality grocery stores to provide better alternatives to the unhealthier options currently available:

> I would say the availability of a healthy diet [is challenging]. We have only a very small grocery store, so options for healthy eating are very limited in the county unless you're willing to travel. We have these big dollar stores popping up everywhere, where it's easy to buy junk food (Commissioner #1).

These counties struggled with the challenge of keeping low-income families together, and the wide-ranging impacts single parenthood can have on families and on the community. One commissioner noted that, 'In our social services, that's one of the things we see, single parenthood. We really try to get a connection between the mothers and fathers. And I don't know if there is a magical way to make that happen' (Commissioner #4). This commissioner went on to note some of the community work that had made a difference in the past:

> A number of years back we had a church leader here who really made [single parenthood] one of his top priorities. There were a fair number of men who were fathers multiple times over, they were not living in the family of any one of those children. He really made it an issue to try to reach out and try to get them to take ownership of fatherhood and become more involved. I think it did have some impact. Unfortunately, he's no longer here and I don't see that as a real initiative that any one of the churches has taken over.

One commissioner's story about a youth league in which he/she coaches was particularly illuminating:

> Single parenthood is definitely a problem here. I myself happen to coach a youth [sports team] through the church. Out of 20 kids, only four have intact families. For some, parents are in jail. Some of them don't know their fathers. For some, both parents have passed away and the grandparents are raising them. Four kids had parents die, either suicides or drug overdoses. The rest are single parent families, and I'd say half of those have some pretty big family conflicts. The parents will get into arguments in the parking lot when they're picking them up. We have to take the kids home because their rides don't show. The women seem

> more responsible, the men still want to run around. I don't know how you fix the family dynamic, but that is definitely a big factor, probably the largest. We have some really great church-based organizations. Without them, I'd hate to see what it would be like, they are the biggest support. One church here operates a food pantry, a low-income daycare, they have adult education classes almost every night, youth group activities. They have a lot of different programs to get the kids there, get them involved, have them in a good environment. One of my best friends coaches in a different county, and they don't have near the problems. Both parents are there, the mother or the father helps out every practice, they're there early (Commissioner #5).

This commissioner went on with an instructive story from this coaching experience:

> There's a young lady I coached. She was in seventh grade, didn't know her left from her right. I realized that after a while. So it's like you're doing more than just coaching them, it is a lot of life skills, you know? So I told her how you put your hand out and it makes an 'L.' A little bit later one of the other kids said, 'Hey, you can't have high boots when we [compete].' And she said, 'Oh, these are the only shoes I have.' I went to the shoe store and bought her sneakers and had one of the mothers give them to her so she wasn't taking gifts from an older [adult]. You run into things like that all the time. That girl moved away. Nobody knows where the family went really, we don't know what happened. These kids, they're falling through the cracks, they're in a danger zone. I think a lot of adults have gotten to the point where they've just given up, and the kids pay the price. We're fighting hard.

There were significant educational inequalities across these communities. As one commissioner explained, 'We have some very good education in some parts of our county, and other areas struggle' (Commissioner #4). Some school districts were failing, with few options seemingly available to them:

> One of our school districts is financially in trouble and has been taken over by the state. Another has a tax base that is just really eroded. They're actually in turmoil because [one part of the community] voted to leave the district to join another district. If that goes through, the district will probably collapse because the tax base will be gone. They're not going to be able to survive and they're going to need to join another school district. And they're probably not wanting to do that because the closest one for them is one of the top struggling school districts in the state (Commissioner #4).

This commissioner commented on her/his county's efforts to fight some of this inequality by creating more vocational education programs:

> College isn't for everybody. I really think if they could develop a skill we'd be better off. We just recently helped three different trade unions develop an educational center so that they can start to train folks. Just last week I had a meeting with our county vocational education school trying to determine their needs and see if we can't help them and help to address more of the needs of our community. Ten years ago I think there was a huge push back on pushing trade schools over college. But at the national level, the talk of the need for trade

> schools is starting to make it a little more acceptable and we're trying to highlight that so that people understand that it is a very viable option. And sometimes, frankly, it is a better financial future than going to college. I do think I'm starting to see the tide change with that.

Crime and substance abuse proliferated in the low-income communities of the commissioners we spoke with. One commissioner observed that, 'Low-income families tend to be pocketed in certain areas, and they tend to be the crime areas' (Commissioner #4). She/he noted that substance abuse was also common in these communities:

> Drugs is a huge problem, and it's really hard to get a handle on it. There's also some human trafficking going on. Opioids were real big here. And because of the crackdown on opioids, we're seeing an increase in heroin and crack. In some of our more rural areas we're seeing meth. And I don't want to downplay alcohol, there's a real alcohol issue. And even with the opioids, some of the folks who were hooked on opioids, once they got weaned off, some will be doing heroin and others are drinking in place of the opioid. I don't want to downplay alcohol, it is every bit of a problem as the drugs are.

Blight was another common theme in our conversations. Commissioners expressed the need to make their communities more desirable for businesses and more livable for their residents, as these quotes demonstrate:

> In our county, we have very limited space. We have a lot of blight, a lot of properties knocked down. We have very few storefronts or available business location opportunities. Our opportunity zones are limited to inside the borough which further limits anybody trying to get anything started where there may be some land. We are really tight as far as growth goes for our community (Commissioner #3).

> We've found the less vacant properties we can have in a neighborhood or in a block, the less we have of some of these issues. When you see blighted and vacant buildings in a neighborhood, that's just a red flag for problems. And one of the things we've tried to do is to work with municipalities to use funds to go in and try to demo the property and they put up a new property so that it becomes attractive when somebody gets in there (Commissioner #4).

Discussion

Our U.S. results align with the existing literature which suggests that areas of concentrated disadvantage are detrimental to equality of opportunity. The strongest correlations came from racial segregation (-0.63), single-parenthood (-0.59), poverty (-0.52), and college graduation (0.44), but sizeable correlations existed for income (0.37) and social capital (0.35) as well. Our results align with previous research which suggests that in communities dealing with the issues of racial segregation, high single-parenthood rates, concentrated poverty, low educational attainment, and low social capital, it will be more difficult for children from disadvantaged backgrounds to climb the social ladder. It is not just a matter of household disadvantage, as even different men raised in similarly low-income households have very different opportunities available to them depending upon where those households are located.

Our specific concern in this paper is our state of Pennsylvania, and here we see similar patterns. Our data confirm that pronounced opportunity gaps exist between counties in Pennsylvania. Compared to low-income men who grew up in high-opportunity Indiana County, for instance, those who grew up in low-opportunity Dauphin County came out behind on measures of household income ($11,981 gap), marriage (18.9 percentage point gap), incarceration (10 percentage point gap), college graduation (9.4 percentage point gap), and upward mobility (8.3 percentage point gap) (see Tables 2-7). Our analysis suggests that single parenthood, racial segregation, social capital, and college graduation are the best predictors of opportunity across Pennsylvania counties.

If we care about equality of opportunity, as Americans consistently claim on surveys, such inequalities cannot stand unaddressed. People cannot be truly free if they do not possess agency, or the ability to freely choose the life that they desire for themselves, and to be able to think and act autonomously in pursuit of that desired life. Agency requires that people have their abilities developed, they have access to important social and economic resources, and they have access to opportunity pathways (Eppard et. al. 2020). Evidence from this study suggests that all of these components of agency are compromised by growing up in disadvantaged areas of the U.S., as well as particularly-disadvantaged counties in Pennsylvania.

Our results suggest that residential contexts can be said to act as a form of structural violence, which refers to:

> 'the avoidable limitations society places on groups of people that constrain them from achieving the quality of life that would have otherwise been possible. These limitations could be political, economic, religious, cultural, or legal in nature and usually originate in institutions that have authority over particular subjects. Because of its embedding within social structures, people tend to overlook them as ordinary difficulties that they encounter in the course of life. . . Structural violence directly illustrates a power system wherein social structures or institutions cause harm to people in a way that results in maldevelopment or deprivation' (Lee 2016, p. 110).

And of course, like many factors which impact a person's path through life, one does not choose the community he/she will grow up in:

> 'We do not choose to exist. We do not choose the environment we will grow up in. We do not choose to be born Hindu, Christian or Muslim, into a war-zone or peaceful middle-class suburb, into starvation or luxury. We do not choose our parents, nor whether they'll be happy or miserable, knowledgeable or ignorant, healthy or sickly, attentive or neglectful. The knowledge we possess, the beliefs we hold, the tastes we develop, the traditions we adopt, the opportunities we enjoy, the work we do—the very lives we lead. . . This is the lottery of birth' (Martinez 2016, p. 3).

Granting equality of opportunity to all Americans will require that we continue to pay attention to the impact of place, ensuring that some areas of the country are not experiencing critical deficiencies in opportunity while others are enjoying abundance.

Table 2. Fraction of Men from Low-Income Backgrounds who Rise to Top 20% in Household Income in Pennsylvania by County.

County	Fraction in top 20% (%)	County	Fraction in top 20% (%)
U.S. County Median	8.8		
Montgomery County	17.9	Clinton County	10.0
Pike County	17.8	Crawford County	9.9
Bucks County	17.1	Clearfield County	9.8
Indiana County	15.7	Carbon County	9.7
Delaware County	15.6	Elk County	9.7
Greene County	14.8	Somerset County	9.7
Clarion County	14.7	Union County	9.6
Washington County	14.3	Bradford County	9.5
Chester County	14.0	Warren County	9.4
Butler County	13.9	Columbia County	9.4
Montour County	13.5	McKean County	9.3
Westmoreland County	13.5	Lancaster County	9.3
Susquehanna County	13.4	Sullivan County	9.2
Wyoming County	13.2	Adams County	9.0
Cambria County	13.2	Lycoming County	8.8
Monroe County	12.9	Mercer County	8.8
Lackawanna County	12.5	Lebanon County	8.8
Tioga County	12.4	York County	8.8
Jefferson County	12.1	Huntingdon County	8.6
Potter County	12.0	Perry County	8.5
Wayne County	11.9	Franklin County	8.4
Allegheny County	11.7	Venango County	8.2
Luzerne County	11.6	Bedford County	8.0
Northampton County	11.5	Blair County	8.0
Armstrong County	11.4	Juniata County	7.9
Lehigh County	11.3	Fulton County	7.8
Beaver County	11.2	Philadelphia County	7.7
Fayette County	11.1	Mifflin County	7.7
Schuylkill County	10.8	Erie County	7.6
Centre County	10.8	Dauphin County	7.4
Berks County	10.8	Cameron County	6.5
Cumberland County	10.7	Snyder County	5.0
Lawrence County	10.6	Forest County	3.8
Northumberland County	10.4		

Table 3. Fraction of Men from Low-Income Backgrounds Incarcerated in Pennsylvania by County.

County	Fraction incarcerated (%)	County	Fraction incarcerated (%)
U.S. County Median	3.7		
Fulton County	1.3	Lackawanna County	3.4
Sullivan County	1.4	Huntingdon County	3.5
Tioga County	1.6	Warren County	3.5
Wayne County	1.7	Blair County	3.6
Indiana County	1.7	Lawrence County	3.7
Clarion County	1.8	Clinton County	3.8
Wyoming County	2.0	McKean County	3.8
Greene County	2.1	Northampton County	3.8
Westmoreland County	2.3	Perry County	3.9
Somerset County	2.3	Snyder County	3.9
Armstrong County	2.4	Bucks County	3.9
Susquehanna County	2.4	Butler County	3.9
Washington County	2.5	Monroe County	4.1
Juniata County	2.5	Montour County	4.1
Cambria County	2.6	Venango County	4.2
Columbia County	2.6	Fayette County	4.3
Forest County	2.6	Clearfield County	4.4
Potter County	2.7	Erie County	4.5
Crawford County	2.7	Jefferson County	4.6
Mifflin County	2.7	Montgomery County	4.7
Bedford County	2.8	Lancaster County	4.8
Bradford County	2.8	Elk County	4.8
Luzerne County	2.9	Cameron County	5.2
Mercer County	2.9	Berks County	5.3
Union County	3.0	Lycoming County	5.3
Beaver County	3.0	Lehigh County	5.3
Northumberland County	3.0	Allegheny County	5.4
Carbon County	3.2	Lebanon County	5.6
Franklin County	3.2	Delaware County	6.0
Centre County	3.2	Chester County	6.2
Cumberland County	3.3	York County	6.7
Adams County	3.3	Philadelphia County	8.9
Pike County	3.4	Dauphin County	11.7
Schuylkill County	3.4		

Table 4. Fraction of Men from Low-Income Backgrounds Who are Married in Pennsylvania by County.

County	Fraction married (%)	County	Fraction married (%)
U.S. County Median	40.0		
Potter County	53.5	Warren County	41.7
Union County	53.0	Columbia County	41.7
Tioga County	51.5	Westmoreland County	41.7
Snyder County	51.5	Northumberland County	41.6
Mifflin County	50.5	Carbon County	41.3
Juniata County	49.0	Lebanon County	41.1
Clarion County	48.3	Mercer County	40.8
Wyoming County	47.9	Fayette County	40.5
Bedford County	47.3	Perry County	40.4
Indiana County	47.2	Pike County	40.2
Huntingdon County	47.2	Washington County	39.8
Susquehanna County	47.1	Lawrence County	39.5
Crawford County	47.1	Blair County	39.0
Jefferson County	47.0	Lycoming County	38.7
Somerset County	47.0	Sullivan County	38.1
Centre County	45.4	Elk County	38.0
Franklin County	44.8	Lackawanna County	37.3
Fulton County	44.7	Beaver County	36.9
Lancaster County	44.6	Schuylkill County	36.1
Bradford County	43.9	Erie County	36.0
Clearfield County	43.7	Bucks County	35.9
Greene County	43.6	York County	35.6
Venango County	43.6	Luzerne County	35.2
Adams County	43.4	Montgomery County	35.1
Forest County	43.4	Berks County	33.7
Cambria County	43.2	Monroe County	33.6
Clinton County	43.0	Northampton County	33.5
McKean County	43.0	Lehigh County	32.9
Cumberland County	42.6	Chester County	32.8
Armstrong County	42.5	Allegheny County	31.0
Wayne County	42.3	Delaware County	28.4
Butler County	42.3	Dauphin County	28.3
Cameron County	42.0	Philadelphia County	20.1
Montour County	41.9		

Table 5. Fraction of Men from Low-Income Backgrounds Who Graduated College in Pennsylvania by County.

County	Fraction college grad (%)	County	Fraction college grad (%)
U.S. County Median	12.7		
Montgomery County	29.6	Sullivan County	14.9
Pike County	28.0	Schuylkill County	14.5
Monroe County	27.6	Clearfield County	13.8
Delaware County	26.4	Wayne County	13.4
Allegheny County	25.0	Union County	13.3
Bucks County	24.4	Venango County	13.2
Lackawanna County	24.4	Lancaster County	13.0
Westmoreland County	23.4	Wyoming County	12.6
Chester County	22.8	Bradford County	12.5
Indiana County	21.5	Berks County	12.4
Luzerne County	20.2	Dauphin County	12.1
Cambria County	20.1	Lebanon County	12.0
Lawrence County	19.5	Lycoming County	11.9
Washington County	19.2	Huntingdon County	11.5
Lehigh County	18.8	York County	11.3
Philadelphia County	18.4	Crawford County	10.9
Centre County	18.1	McKean County	10.8
Northampton County	17.8	Somerset County	10.7
Carbon County	17.7	Armstrong County	10.4
Beaver County	17.4	Greene County	10.3
Northumberland County	17.1	Potter County	9.9
Elk County	16.8	Warren County	9.7
Butler County	16.7	Franklin County	9.5
Tioga County	16.7	Clinton County	8.2
Blair County	16.6	Bedford County	8.2
Jefferson County	16.6	Snyder County	7.4
Columbia County	16.6	Fulton County	6.7
Cumberland County	16.0	Adams County	6.5
Mercer County	15.8	Mifflin County	6.0
Fayette County	15.7	Juniata County	4.5
Clarion County	15.4	Perry County	2.6
Susquehanna County	15.0	Forest County	0.9
Montour County	14.9	Cameron County	0.0
Erie County	14.9		

Table 6. Household Income of Men from Low-Income Backgrounds in Pennsylvania by County.

County	Household income ($)	County	Household income ($)
U.S. County Median	32,349		
Sullivan County	42,572	Schuylkill County	34,953
Clarion County	40,181	Lebanon County	34,953
Indiana County	39,917	Snyder County	34,835
Tioga County	39,575	Fulton County	34,812
Potter County	39,509	Fayette County	34,665
Pike County	38,602	Somerset County	34,648
Greene County	38,591	McKean County	34,638
Jefferson County	38,439	Clinton County	34,440
Wyoming County	38,401	Franklin County	34,362
Union County	38,380	Luzerne County	34,332
Wayne County	38,153	Beaver County	34,315
Susquehanna County	37,563	Bedford County	34,267
Armstrong County	37,066	Lawrence County	34,260
Butler County	37,061	Chester County	34,177
Westmoreland County	36,991	Lehigh County	33,815
Juniata County	36,940	Northampton County	33,501
Montgomery County	36,838	Monroe County	33,485
Bucks County	36,805	Mifflin County	33,277
Washington County	36,728	Mercer County	33,132
Adams County	36,454	Lycoming County	33,119
Huntingdon County	36,186	Berks County	33,062
Cambria County	36,144	Delaware County	32,787
Bradford County	36,110	Perry County	32,711
Clearfield County	35,865	York County	32,538
Northumberland County	35,818	Warren County	32,278
Centre County	35,666	Venango County	32,189
Cumberland County	35,588	Allegheny County	32,096
Lancaster County	35,335	Blair County	31,869
Lackawanna County	35,325	Forest County	31,800
Columbia County	35,251	Cameron County	31,452
Crawford County	35,249	Erie County	31,289
Carbon County	35,054	Dauphin County	27,936
Montour County	34,991	Philadelphia County	25,038
Elk County	34,966		

Table 7. Pennsylvania Counties Ranked by Opportunities for Men from Low-Income Backgrounds.

County	Rank	County	Rank
Indiana County	1	Monroe County	35
Tioga County	2	Fulton County	36
Clarion County	3	Lawrence County	36
Wyoming County	4	Adams County	38
Susquehanna County	5	Schuylkill County	39
Westmoreland County	5	Fayette County	40
Pike County	7	Lancaster County	40
Cambria County	8	Bedford County	42
Greene County	9	Chester County	43
Potter County	10	Delaware County	43
Washington County	10	Northampton County	45
Wayne County	12	Mercer County	46
Union County	13	Elk County	47
Centre County	14	Franklin County	47
Jefferson County	15	Clinton County	49
Butler County	16	Mifflin County	49
Bucks County	17	McKean County	51
Montgomery County	18	Snyder County	52
Armstrong County	19	Lehigh County	53
Sullivan County	20	Allegheny County	54
Lackawanna County	21	Venango County	55
Northumberland County	22	Blair County	56
Cumberland County	23	Warren County	56
Crawford County	24	Lebanon County	58
Bradford County	25	Forest County	59
Columbia County	26	Berks County	60
Somerset County	27	Lycoming County	61
Carbon County	28	Perry County	62
Luzerne County	29	Erie County	63
Juniata County	30	Philadelphia County	64
Montour County	30	York County	65
Huntingdon County	32	Cameron County	66
Beaver County	33	Dauphin County	67
Clearfield County	33		

Note: Opportunity rank based on average PA county rank for men from low-income backgrounds on five outcomes: upward mobility, incarceration, marriage, college graduation, and household income.

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Appendix

Appendix Table 1. Multiple Regression Model Predicting County Opportunity Index Rank in Pennsylvania.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-250.207	97.972		-2.554	.013
	Job growth rate	170.374	421.150	.058	.405	.687
	Median household income	.001	.001	.466	1.312	.195
	Poverty rate	36.407	117.241	.066	.311	.757
	Fraction college graduates	-96.075	56.835	-.412	-1.690	.096
	Fraction non-White	81.538	33.418	.415	2.440	.018
	Fraction single parents	134.408	45.846	.450	2.932	.005
	Social capital	2.462	.990	.357	2.487	.016

Note: model r square = 0.372, p < .001.

Appendix Table 2. Multiple Regression Model Predicting Marriage across U.S.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.858	.026		33.068	.000
	Job growth rate	.350	.096	.049	3.647	.000
	Median household income	.000	.000	-.364	-14.164	.000
	Poverty rate	-.319	.038	-.195	-8.495	.000
	Fraction college graduates	-.051	.020	-.044	-2.536	.011
	Fraction non-White	-.198	.009	-.366	-21.297	.000
	Fraction single parents	-.536	.019	-.466	-28.610	.000
	Social capital	.000	.000	-.026	-1.744	.081

Note: model r square = 0.571, p < .001.

Appendix Table 3. Multiple Regression Model Predicting Income across U.S.

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	61628.844	2163.370		28.487	.000
	Job growth rate	27238.871	8001.788	.054	3.404	.001
	Median household income	-.137	.017	-.245	-8.003	.000
	Poverty rate	-49363.48	3131.550	-.432	-15.763	.000
	Fraction college graduates	793.433	1687.809	.010	.470	.638
	Fraction non-White	-2562.478	773.797	-.068	-3.312	.001
	Fraction single parents	-29278.09	1563.044	-.364	-18.731	.000
	Social capital	-40.566	21.593	-.034	-1.879	.060

Note: model r square = 0.388, $p < .001$.

Appendix Table 4. Multiple Regression Model Predicting Mobility across U.S.

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.267	.018		15.034	.000
	Job growth rate	.338	.066	.090	5.158	.000
	Median household income	.000	.000	.012	.356	.722
	Poverty rate	-.241	.026	-.282	-9.393	.000
	Fraction college graduates	.007	.014	.011	.489	.625
	Fraction non-White	-.007	.006	-.025	-1.112	.266
	Fraction single parents	-.161	.013	-.268	-12.580	.000
	Social capital	-.001	.000	-.106	-5.388	.000

Note: model r square = 0.268, $p < .001$.

Appendix Table 5. Multiple Regression Model Predicting Incarceration across U.S.

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.031	.007		-4.312	.000
	Job growth rate	.061	.027	.040	2.273	.023
	Median household income	.000	.000	.129	3.823	.000
	Poverty rate	.042	.011	.120	3.963	.000
	Fraction college graduates	.008	.006	.033	1.438	.151
	Fraction non-White	.032	.003	.276	12.234	.000
	Fraction single parents	.075	.005	.305	14.236	.000
	Social capital	.000	.000	.069	3.490	.000

Note: model r square = 0.260, $p < .001$.

Appendix Table 6. Multiple Regression Model Predicting College Graduation across U.S.

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.221	.027		8.223	.000
	Job growth rate	-.004	.100	-.001	-.043	.966
	Median household income	.000	.000	-.200	-5.307	.000
	Poverty rate	-.177	.039	-.151	-4.579	.000
	Fraction college graduates	.399	.020	.494	19.927	.000
	Fraction non-White	-.002	.009	-.004	-.176	.860
	Fraction single parents	-.109	.020	-.129	-5.555	.000
	Social capital	-.001	.000	-.046	-2.192	.028

Note: model r square = 0.220, $p < .001$.

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