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Re-Centering Family Structure in Opportunity Insights' Work on Intergenerational Mobility: How Important Is Single Parenthood?

Scott Winship and Mariana Icaza Díaz

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Over the past decade, Opportunity Insights (OI) has transformed the study of intergenerational mobility through innovative uses of administrative data, reshaping the public and scholarly understanding of the factors that affect children's life prospects. One consistent finding in this literature is the strong association between family structure, especially single parenthood, and upward mobility, though it has received relatively little sustained attention. This report systematically reviews 11 major OI studies to assess how family structure enters their analyses, how it is interpreted, and what conclusions can and cannot be drawn from the existing evidence.

We show that across geographic units ranging from commuting zones to census tracts, rates of single parenthood are among the strongest correlates of upward mobility, often rivaling or exceeding other widely emphasized factors such as school quality, income inequality, and social capital. At the same time, OI's reliance on mobility measures that condition on parental income, along with onetime measures of family structure, likely understates the importance of growing up with a single parent at the family level and complicates interpretation of community-level results.

We conclude that family structure is plausibly a central mechanism shaping economic mobility, both directly and through its influence on parental income, neighborhood composition, and adult outcomes such as marriage. We outline directions for future research to assess the role of family structure in the transmission of economic advantage and disadvantage.

The front page of the July 22, 2013, print edition of *The New York Times* heralded the start of a revolution in scholarly research on intergenerational social mobility (Leonhardt 2013). Capping an above-the-fold article written by star economics reporter David Leonhardt, the headline announced, "Geography Seen as Barrier to Climbing Class Ladder."[1] The subject of Leonhardt's piece: the first study assessing social mobility across local areas throughout the United States.

That study's title, "The Economic Impacts of Tax Expenditures: Evidence from Spatial Variation Across the U.S.," hardly conveyed its importance in launching a

1 We cite the print title, which is also provided at the bottom of the article's webpage.

project that continues to this day (Chetty et al. 2013). The paper, authored by economists Raj Chetty and Nathaniel Hendren of Harvard University and Patrick Kline and Emmanuel Saez of the University of California, Berkeley, was nominally about the effect of itemized tax deductions and the earned income tax credit (EITC) on intergenerational mobility. However, the media headlines it garnered rightly ignored the tax angle; the study's value was in its innovative use of restricted-access data from the IRS to produce the most comprehensive study to date on the geography of opportunity in America.

Using those data, constituting millions of records linking parents to their grown children, Chetty and his colleagues were able to demonstrate for the first time where Americans were more likely to escape childhood poverty and where they tended to remain mired in generational hardship. In subsequent years, their Equality of Opportunity Project became Opportunity Insights (OI), and it has produced a string of pathbreaking studies primarily relying on the IRS data. These analyses have focused on residential mobility, college selection, racial disparities, social capital, the differential prospects of girls and boys, and housing policy.[2]

However, one consistent finding in the OI research has remained outside the spotlight: the apparent importance of family structure for child outcomes. It's not so much that it has been hidden offstage in the wings; from the start, family structure has been a visible supporting player. Leonhardt's article opened with a vignette about a single mother of three living in Atlanta. He noted the study's finding that "income mobility was . . . higher in areas with more two-parent households," highlighting it among a small number of other factors correlated with mobility (Leonhardt 2013).

But family structure has evaded center stage in public conversations around the OI research. This omission is unfortunate, for the evidence consistently suggests that family structure is at least as important as any other single factor OI has identified. Our hope is that by bringing together this evidence in one place, policymakers, researchers, and journalists will afford the importance of two-parent families the attention it deserves.

Our review summarizes the OI papers in which family structure is mentioned as a potential causal factor affecting social mobility or other outcomes—11 papers in all. We do not organize the review chronologically, choosing instead to order similar studies together and build toward narrower findings. We highlight some interpretative issues as they come up, which complicate several of the results.

Our main conclusions about growing up with a single parent are as follows.

- The relationship between *family*-level single parenthood and adult outcomes is relatively underexamined in the OI research. The effect of family-level single parenthood on child mobility generally seems modest in the OI research, but the methods used probably understate its importance.

- In several papers, the association between community-level single parenthood and community rates of mobility is nearly as strong for the children of married parents as for the children of single parents. OI interpretations of these results lean toward the conclusion that what is harmful is growing up *around* single parents rather than growing up with a single parent oneself.

- OI's evidence suggests that men who grew up with a single parent tend to have lower employment rates than women who grew up with a single parent, even when they have the same parental income. In contrast, holding parental income constant, men raised by married parents are more likely to be employed than are women raised by married parents. This result is consistent with the idea that growing up fatherless is more harmful for boys than girls.

- OI finds that the male black-white mobility gap (the difference between the adult incomes of white and black men with the same parental income) is as large among boys with married parents as among boys with a single parent. That runs contrary to the idea that family-level single parenthood is responsible for the black-white gap.

- In another paper, OI found that the black-white mobility gap for low-income children (combining

2 See the papers listed at OI (n.d.-a).

boys and girls) has narrowed in recent years. But it narrowed by similar amounts for the children of married and single parents. Moreover, the black-white gap in single parenthood among low-income children narrowed only modestly. The mobility gap between lower-income and upper-income white children also widened regardless of family structure.

- These results, however, probably understate the importance of growing up with a single parent, for the following reasons.
  - Family structure is assessed in a single year of childhood, but some children with married parents in that year experienced single parenthood earlier or later.
  - If family structure affects parental income, then the mobility measures used by OI (which *control for* parental income) will understate how family structure affects adult outcomes.
  - Showing that, for instance, the black-white gap in men's income, controlling for parental income, is the same whether or not children grew up with a single parent does not establish that single parenthood doesn't affect the black-white gap. If most black children have single parents and correspondingly lower incomes, while most white children have married parents and correspondingly higher incomes, then holding constant parental income will miss the importance of family structure.
  - Married parents with lower incomes likely have unobserved disadvantages, since they potentially have two earners but are nonetheless relatively poor. Similarly, single parents with higher incomes likely have unobserved advantages. When comparing children of single and married parents with the same income, unobserved disadvantages or advantages might mask the harmful impact of family structure in correlational analyses.

Our main conclusions about growing up in a community with high rates of single parenthood are as follows.

- People from places with higher rates of single parenthood tend to have lower upward mobility. Across the OI papers, single parenthood is repeatedly among the strongest predictors of whether a place is associated with higher mobility.

- This relationship recurs whether looking across counties; commuting zones (CZs), which are contiguous aggregations of counties; or census tracts.

- When pitted against other predictors of community mobility rates in multivariate analyses, single-parenthood rates usually remain strongly associated with mobility, even when other predictors no longer look important.

- In analyses that estimate each CZ's or county's causal effect on mobility, rates of single parenthood are only somewhat less strongly correlated with the causal effects' size than they are with the mobility rates.

- However, community rates of single parenthood aren't consistently strongly correlated with mobility *gaps* between boys and girls or between blacks and whites.

- In one OI study, communities with higher rates of single motherhood tended to be associated with lower mobility for boys but higher mobility for girls. Higher rates of single fatherhood were associated with higher mobility for black boys but lower mobility for girls and white boys. In non-poor communities, higher rates of single motherhood among low-income black families were associated with lower black male upward mobility but not with lower white male upward mobility or lower black female upward mobility. Higher rates of single motherhood among low-income white families were associated with lower white male upward mobility but not lower black male upward mobility.

- As noted, the association between community single parenthood and upward mobility rates generally was only somewhat lower for children of married parents than for children of single parents. This could indicate that growing up around

single parents hurts even children in intact families. However, for the methodological reasons already noted, the OI papers probably understate the differential impact of community single parenthood on children depending on their family structure. The similarity of the correlation for children of married and single parents could also indicate that unobserved community factors drive the associations for both.

Our main conclusions about marriage as an outcome are as follows.

- Most of the OI papers focus on adulthood household income to assess mobility. However, the OI researchers note that household income partly reflects the number of earners, which in turn is related to whether someone is married. Therefore, family structure in both childhood and adulthood can affect mobility rates.

- One OI paper found that the gap between blacks and whites in upward mobility was two-thirds smaller if adult individual income was used as the basis for assessing mobility rather than household income. A primary reason is that marriage rates are far lower among blacks than among whites, even holding parental income constant. One potential way that childhood family structure affects adult household income is by affecting adulthood marriage, a question unexplored in the OI research.

The OI studies have not been designed to rigorously estimate the causal effect of family structure on child outcomes, and most of the evidence in the papers is correlational, though (like the OI researchers) we sometimes use causal language to describe the results for convenience. Assessing the causal effect of family structure on child outcomes is an extraordinarily difficult task, one that can be appreciated by thinking through what an experiment would look like that randomly assigned "single parenthood" to children and then measured the effect on some outcome. One of this report's authors, Scott Winship, has explored the conceptual and methodological issues involved elsewhere (Winship 2024; Sheffield and Winship 2020).

We conclude with suggestions for future research on family structure and mobility that OI could explore.

Opportunity Insights on Single Parenthood

"The Economic Impact of Tax Expenditures: Evidence from Spatial Variation Across the U.S." Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez. First Released in July 2013. Issued as an Internal Revenue Service Statistics of Income Working Paper in 2015.

The much-trumpeted 2013 paper was finalized two years later without fanfare (Chetty et al. 2015). By that point, the headline findings had been carved off into another paper (Chetty et al. 2014; discussed next).[3] But it is worth summarizing the original draft that started it all, as it included results related to family structure that did not reappear in subsequent papers.

Like most subsequent papers from OI, this one defined "upward mobility" as the typical adulthood income percentile rank for someone who grew up in a family at the 25th percentile of parental income. That is, a mobility value of 40 indicates that children with parents who were better off than 25 percent of parents nationally (and poorer than 75 percent) typically had incomes as adults that were higher than 40 percent of their same-age peers. This mobility measure is available for 741 CZs.

In Chetty et al. (2013), the authors considered the correlation across CZs of mobility with 28 community-level predictors.[4] A correlation indicates, for example, the extent to which the CZs with the highest rates of single parenthood are also the CZs with the lowest upward mobility. Correlations range from −1 to 1, with negative values indicating a "the higher, the lower" relationship and positive ones indicating "the higher, the higher." A correlation of 0 means that single-parenthood rates have no linear relationship with upward mobility, while larger (or more negative) values indicate a stronger relationship. Correlations of −1 or 1 mean that if you know a CZ's single-parenthood rate and the linear relationship

3 Many of these papers are available ungated at OI (n.d.-a).

4 The 2015 version, like Chetty et al. (2014), expanded the number of predictors to 35. See Chetty et al. (2015, table XII).

between single-parenthood rates and mobility across CZs, you can exactly predict a CZ's mobility rate from its single-parenthood rate.

Of note, a correlation does *not* tell you the magnitude of the increase or decrease in mobility as single-parenthood rates change, only how well single parenthood predicts mobility. It's possible that single parenthood predicts mobility very well but that increases in single-parenthood rates have a substantively small impact on mobility.

The two predictors most strongly correlated with mobility were the share of families in a CZ headed by a single mother (−0.76) and a CZ's divorce rate (−0.69). CZ teen birth rates ranked ninth (−0.55) (Chetty et al. 2013, table 5). Note that the team specifically looked at community rates of single *motherhood*.

In multivariate analyses—pitting several predictive variables against each other—the share of families headed by a single mother remained strongly correlated with upward mobility (−0.35), even after "controlling for" high school dropout rates, social capital, income inequality, and unobserved factors common to all CZs in a given state (Chetty et al. 2013, table 7 col. 2). That suggests that the apparent relationship between single motherhood and mobility is not due to any of these competing explanations simply creating a misimpression.

The 2015 version of the paper set up single-motherhood rates as a rival predictor of mobility against high school dropout rates, social capital, income inequality, and racial segregation. It found that single motherhood had the strongest association—a correlation of −0.49, even after controlling for those competing factors (Chetty et al. 2015, table XIII col. 3).

When pitted against the share of a CZ's families that were black and the generosity of a state's EITC, the correlation between single motherhood and mobility remained −0.76 in the 2013 version of the paper (Chetty et al. 2013, table 7 col. 4). Since single motherhood is more common among black families, we might be concerned that the relationship between single motherhood and mobility is simply picking up that, for some other reason, black children are more likely to have single mothers and lower mobility. This result makes that possibility unlikely. In contrast, while the correlation between the share of a CZ's population that was black and the CZ's mobility was −0.61, once single-motherhood rates and state EITC generosity were accounted for, the relationship between race and mobility disappeared entirely (table 5, table 7 col. 4).

Finally, the paper presented one other correlation without comment, but it would feature in the team's next paper. The correlation between having more single mothers in a CZ and the mobility rate among children living with married parents was also very large (−0.65) (Chetty et al. 2013, table 5). That is, in CZs with high rates of single motherhood, even the kids of married parents tended to have lower mobility.

"Where Is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States." Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez. First Released January 2014. Published in *The Quarterly Journal of Economics* in 2014.

The initial paper (Chetty et al. 2013)—sans the focus on tax provisions—evolved into what became the flagship OI study (Chetty et al. 2014). The same team of authors highlighted five predictors of a CZ's upward mobility, noting that "the fraction of children living in single-parent households is the single strongest correlate of upward income mobility among all the variables we explored" (1616).

Specifically, of 35 variables examined (including most of those in the 2013 paper), the CZ single-motherhood rate came out on top, with a correlation of −0.76 (Chetty et al. 2014, online appendix, table VIII col. 1). The fraction of adults divorced placed 13th this time (−0.49), while the share of adults married ranked 11th (0.57). While teen birth rates were considered in the earlier paper, neither Chetty et al. (2014) nor Chetty et al. (2015) included them. (Indeed, in no subsequent paper did OI revisit teen birth rates as a predictor.) Using the spreadsheets OI provides, it is possible to obtain a *county*-level correlation of teen birth rates and mobility. That is −0.56—very close to the −0.55 given for the CZ-level correlation in Chetty et al. (2013), in which teen birth rates were ranked ninth out of 28 variables examined.[5]

5 The county-level mobility and teen birth rate estimates, titled "Geography of Mobility: County Intergenerational Mobility Statistics and Selected Covariates," are available at OI (n.d.-b). For the 2013 CZ-level correlation, see Chetty et al. (2013, table 5).

When controlling for the share of the CZ's population that was black and income growth from 2000 to 2010, the single-motherhood rate came out on top again (−0.61), and the share divorced had the second-strongest correlation (−0.57) (Chetty et al. 2014, online appendix, table VIII col. 5). Finally, the single-motherhood rate had the strongest correlation with an alternative measure of mobility (the "rank-rank slope"), with only the black share of the population coming close to it among the other 34 variables (online appendix, table VIII col. 6). The rank-rank slope indicates how many income percentiles apart the poorest and richest children tend to be in adulthood. It indicates the extent to which poorer and richer children converge when they grow up.

In another striking set of findings, when the authors conducted multivariate analyses, pitting five top predictors of mobility against each other, single motherhood emerged as the factor appearing most important (Chetty et al. 2014, table VI col. 1). Holding the other four variables constant, the single-motherhood rate had a stronger correlation with mobility (−0.49) than did commuting times (an indicator of sprawl), income inequality, high school dropout rates, and social capital. Single motherhood looked even more important using the rank-rank slope, with the 0.59 correlation twice as large as the short-commuting-time correlation of −0.29 (table VI col. 4). (A lower rank-rank slope indicates more mobility, so the signs of the correlations are the opposite of those looking at the upward mobility measure.) In a model that also held constant all the unobserved factors common to CZs in a state, the single-motherhood correlation was unchanged (table VI col. 2).

Finally, controlling for the share of a CZ that was black, in addition to the other top five variables, strengthened the relationship between single-motherhood rates and mobility, pushing the correlation from −0.49 to −0.58 (Chetty et al. 2014, table VI col. 8). That relationship, in other words, looks even stronger after accounting for the fact that blacks have lower mobility than non-blacks.

One important issue to keep in mind is that the importance of growing up with a single parent may be understated by using income mobility as the outcome of interest. Mobility measures involve looking at outcomes after conditioning on parental income—for instance, assessing the typical adult income for someone who grew up at the 25th percentile of parental income. To see how this might downplay the importance of family structure, imagine that the only way growing up with a single parent is harmful is by reducing the income available to parents for investing in children. (Single parents have less income than two parents, on average.) The OI researchers start with families at the 25th percentile of income and then assess how their kids turn out. But if the only way single parenthood can affect how kids turn out is by lowering their parent's income, then holding constant parental income will mean that no variation across CZs in how kids turn out can be explained by family structure.

The problem isn't solved by using something like the rank-rank slope, which is just the correlation between parental income percentile and adult income percentile. If single parenthood only harms children by determining their parental income percentile, then we should not expect that variation across CZs in single parenthood will be related to variation in how strongly parental income is tied to children's income when they become adults.

In reality, family structure potentially affects children in other ways besides lowering parental income. But at least part of its impact is likely missed because of conditioning on parent income. Therefore, when looking across CZs to see how strongly single-motherhood rates are correlated with upward mobility, the OI approach will tend to understate the importance of growing up fatherless for kids' subsequent income. Fatherlessness affects whether children are at the 25th percentile, not just where they end up among those who also are raised at the 25th percentile. (This is also an issue for something like the black share of a CZ, as being black in America can affect whether one's parent is at the 25th percentile.)

When they look at single-parenthood rates, the OI analyses are generally asking, "Controlling for parental income, how strongly does growing up with a single parent correlate with adult income?" But if growing up with a single parent lowers parental income, then controlling for parental income will understate single parenthood's importance. Ideally, we'd want to see correlations between parental income percentile rank and adult income rank (the rank-rank slope) and between single parenthood and adult income rank, and then we'd want to see both correlations with the other factor controlled.

There is another problem with asking how important single parenthood is, conditional on parental income. As noted, single parents have lower incomes than

married parents on average. If single parenthood causes parental income to be lower, then comparing single parents and married parents with the same income likely involves a particularly disadvantaged set of married parents. After all, married parents can have two incomes. If they do not, that may be because one or both of them has attributes that both make them less attractive as employees and might harm their children. If they do have two incomes and still remain at, for instance, the 25th percentile of parental income, then they are likely to lack skills that would earn them more and may be beneficial for their children.

In short, married parents at the 25th percentile are probably more disadvantaged in unobserved ways relative to the typical married parent than are single parents at the 25th percentile relative to the typical single parent. These unobserved disadvantages, if not statistically controlled, will tend to make the outcomes of children raised by lower-income married parents worse, and therefore the relationship of family structure with adult outcomes will seem weaker than it really is. (There is an analogous problem conditioning on the 75th percentile of parental income: The single parents who have income that high will tend to have unobserved advantages, since they are doing as well as married parents at the 75th percentile who have two potential earners.)

This point is relevant for another of the paper's striking findings. The introduction to the paper reiterated a point made in the 2013 study—that "children of married parents also have higher rates of upward mobility in communities with fewer single parents" (Chetty et al. 2014, 1558). The correlation between community single-motherhood rates and mobility was −0.66 when looking at children of only married parents (1617).

What to make of this finding? Does it suggest that single parenthood in a community is so harmful that it affects even kids in intact families who are exposed to it? It is not hard to imagine that growing up around single-parent families might, for instance, lead more children with two parents to become single parents as adults. Perhaps the dearth of fathers in a community leads to more crime, affecting the mobility of all kids in a community. Or the disadvantages of growing up with a single parent produce school environments that also hurt the children of married parents. Chetty and his coauthors note this interpretation, saying the correlation for kids of married parents is strong, "perhaps because the stability of the social environment affects children's outcomes more broadly" (Chetty et al. 2014, 1617).

Alternatively, perhaps the high correlation between single-motherhood rates and mobility among kids of married parents means that being raised by a single mother has, at worst, modest *direct* negative effects. The correlation between community rates of single motherhood and mobility is nearly as high for children with two parents as for children with single parents.[6] The OI researchers take this as evidence against a negative effect of single parenthood at the family level (Chetty et al. 2014, 1616–17). The implicit interpretation is that single motherhood lowers community mobility rates less by being directly harmful to children who grow up without a father than by hurting all children in a community with lots of single mothers.

It seems unlikely that mass fatherlessness hurts all children while individuals growing up without a father don't *especially* suffer. A different interpretation of the large correlation for the children of married parents is that perhaps a high rate of single parenthood is mostly the observable product of some other unmeasured community disadvantage that affects children in a CZ regardless of whether both parents are present. That is, the strong relationship between community single-motherhood rates and upward immobility could reflect either a third variable that affects both or some kind of selection of certain kinds of parents into certain kinds of family structures and neighborhoods (with single motherhood being incidental).

For example, perhaps high rates of single motherhood and low rates of mobility both reflect neighborhood cultural values that place a low priority on child economic success. The cultural values might cause low mobility even if every child were in a two-parent family. Perhaps the parents who select into high-single-motherhood neighborhoods would have children with low mobility regardless of their neighborhood (because of their values).

6 Using the data files provided by OI, we can estimate the correlation across 594 CZs between community single-motherhood rates and mobility for three groups: all adults, those raised by a single parent (mother or father), and those raised by married parents. Those correlations are −0.73, −0.75, and −0.61. For the data files, see OI (n.d.-b, tables 5, 8).

This possibility matters because if it's not really single motherhood driving the correlation with mobility, then even if we could increase the number of children growing up with two parents, upward mobility would not rise.

Yet another possibility is that in places with lots of single motherhood, growing up fatherless hurts children directly, while the kind of two-parent family that chooses such a community brings its own, different, impediments to upward mobility. After all, we are talking about families with two potential earners who nevertheless are at the 25th percentile of parental income and choosing neighborhoods with high rates of single motherhood and low rates of upward mobility. So single parenthood might be individually harmful but only look like it harms children with married parents in the community. CZ rates of single motherhood would then be correlated with the mobility of married couples' children because lower-income married couples are especially disadvantaged, both being at the 25th percentile of income (despite potentially having two incomes) and living in the sort of area disproportionately chosen by single-parent families.

A final issue is that the Chetty team's measured correlation of mobility and community single motherhood probably is too strong for children of married parents. The authors assigned kids to family structures based on the marital status of a parent the first time a child was claimed in the IRS data. Some children who had married parents in that single year had already lived without a parent, because they either were born to a single mother before their parent married or experienced a past parental divorce before their parent remarried. Other children experienced parental divorce after the single year in which their family structure was assigned. If it were possible to look at the correlation of mobility with community single motherhood for children *continuously* in an intact family, it would almost surely be lower than the Chetty team reports for children of parents married in one year.

Moreover, this measurement issue is probably more relevant in CZs with lots of single parenthood, where marriages are probably less stable than elsewhere. That will magnify the correlation between mobility and community single motherhood among kids of "married" parents even more. In sum, the difference in this correlation between kids of single parents and kids of married parents is probably larger than this paper suggests.

"Who Becomes an Inventor in America? The Importance of Exposure to Innovation." Alex Bell, Raj Chetty, Xavier Jaravel, Neviana Petkova, and John Van Reenen. First Released in December 2017. Published in *The Quarterly Journal of Economics* in 2019.

We include in our review, for completeness, this paper, which merged IRS data with data on patents to look at predictors of who grows up to become an inventor. It reported incidentally that CZs that produce future inventors "tend to have higher mean incomes (population-weighted correlation $\varrho = 0.63$), fewer single parents ($\varrho = -0.39$), and higher levels of absolute upward intergenerational mobility ($\varrho = 0.32$)" (Bell et al. 2019, 689). Technically, the family-structure measure was single *motherhood* again.

"Social Capital I: Measurement and Associations with Economic Mobility." Raj Chetty, Matthew O. Jackson, Theresa Kuchler, et al. First Released in July 2022. Published in *Nature* in 2022.

The papers above looked at variation in upward mobility rates across CZs. CZs are relatively large geographic areas—no smaller than a county and sometimes larger than a metropolitan area. In a subsequent paper, OI teamed up with researchers from Grammarly, Harvard University, Meta, New York University, and Stanford University to analyze a massive amount of data on social capital that looked across counties and zip codes (Chetty et al. 2022).

The paper linked data on Facebook users in the United States to records assembled by OI for previous studies. The paper's focus was on "economic connectedness." Economic connectedness in an area was defined as the average share of Facebook friendships people in the bottom half of socioeconomic status had with people in the upper half of socioeconomic status. Socioeconomic status here was based on a prediction of income percentile from several Facebook-derived variables, including area median household income, age, sex, college attended, and even phone and carrier type.

Economic connectedness was strongly related to upward mobility, defined as in the earlier papers. Among

22 county-level characteristics the authors examined (nine of them social-capital measures), economic connectedness ranked behind only one other predictor: the share of a county's households headed by a single mother. (The authors again imprecisely use "single parent.") The correlation of county upward mobility and single motherhood was about −0.65. These correlations were imprecisely measured, and it's not clear that single motherhood's relationship to mobility was stronger than that for economic connectedness—or even than the correlations for the share of county residents who were black or for income inequality.

The potential importance of family structure is underplayed in this paper. Of the 13 non-social-capital predictors of mobility, the authors spent three paragraphs discussing the moderate correlations that county median income and poverty rates had with mobility. These correlations became much smaller after controlling for economic connectedness, with the median household income correlation falling to zero.

A paragraph on racial and economic segregation noted that the relatively low correlations these variables had with upward mobility also fell to practically zero after accounting for economic connectedness. In a paragraph on the black population share, which had a strong association with mobility, the authors noted that controlling for economic connectedness eliminated the negative relationship when looking at black adults. Doing so turned the relationship positive when looking at white adults. Controlling for economic connectedness also dropped the strong relationship between income inequality and mobility to practically zero, which the authors discussed in another paragraph.

That left two sentences to discuss the remaining seven county-level predictors of mobility, "ranging from the quality of local schools to job availability to measures of family structure." The authors minimized the apparent importance of single motherhood by explaining that economic connectedness "is more strongly correlated with upward economic mobility than almost all of those characteristics in univariate specifications" (Chetty et al. 2022, 119).

They then turned to a multivariate analysis—pitting economic connectedness against single motherhood, median household income, racial segregation, the black population share, income inequality, and third-grade math scores. Economic connectedness came out on top, with family structure second. However, the imprecision in these correlations is substantial—enough that it's reasonably likely that family structure's correlation with mobility is at least as strong as that of economic connectedness. Other ways of assessing the relative importance of these predictors indicated that single motherhood was either about as important as economic connectedness or third most important, behind economic connectedness and the black population share (Chetty et al. 2022, supplementary information, fig. 2 panels A–D).

Using the data that OI provides publicly, we can further investigate the relative importance of single motherhood. As noted above, controlling for economic connectedness tended to reduce the correlation between county characteristics and mobility to very low levels (sometimes approaching zero). But when we looked at the correlation between single motherhood and mobility, controlling for economic connectedness dropped the association only from −0.65 to −0.44. Moreover, that −0.44 was as strong as the correlation between economic connectedness and mobility after controlling for single motherhood, which was 0.43.

Chetty and his coauthors also reported correlations between the county-level variables and mobility after restricting to counties where over 90 percent of the population was white (Chetty et al. 2022, supplementary information, fig. 5 panels C, D). Single motherhood was the fourth highest correlation (behind economic connectedness, a social-capital index from Pennsylvania State University researchers, and income inequality). When they restricted the analyses to the 25 percent of counties with the highest Facebook coverage, single motherhood finished first (supplementary information, fig. 14 panels A, B). Finally, at the zip-code level, single motherhood had the strongest correlation with upward mobility out of 17 predictors (supplementary information, fig. 3 panel A, fig. 4 panels B, C). When pitted against economic connectedness, the black population share, mean household income, and third-grade test scores, single motherhood was essentially tied with economic connectedness.

"The Opportunity Atlas: Mapping the Childhood Roots of Social Mobility." Raj Chetty, John N. Friedman, Nathaniel Hendren, Maggie R. Jones, and Sonya R. Porter. First Released in February 2020. Published in *The American Economic Review* in 2026.

Even counties and zip codes are relatively large groupings of people. This year has seen the publication of a new OI paper that examined mobility across census tracts (Chetty et al. 2026). Census tracts constitute something like large neighborhoods, averaging a little over 4,000 people. This new paper, authored by Chetty, Hendren, their OI colleague John Friedman, and Census Bureau researchers Maggie R. Jones and Sonya R. Porter, linked IRS data on parental income and the income of their children once they became adults with Census Bureau data. The authors estimated upward mobility rates for each census tract, including separate estimates by parental income, race, and sex.

As in the earlier CZ papers, the authors examined the correlation of upward mobility with several community attributes, this time across census tracts within CZs. Not only did they control for the CZ in which a tract was included, but they controlled for the CZ's racial mix by estimating race-specific correlations and then averaging them. Among 13 tract-level predictors of upward mobility (defined again as the expected income percentile for adults raised at the 25th percentile), single parenthood (this time including single fathers) was essentially tied for first with mean household income as having the strongest correlation. Among other predictors, it beat out four related to employment, two related to education, and tract-level poverty rates. The correlation between tract-level single parenthood and upward mobility remained strong at −0.59 (Chetty et al. 2026).

As in the earlier papers, the authors found that this association between mobility and community single-parenthood rates was strong for the children of both single parents and married parents. And they again endorsed the view that "the correlation is driven not by differences in outcomes between children raised by married versus single parents but rather by ecological (neighborhood-level) factors" (Chetty et al. 2026, 28).

In an appendix, the authors also reported that the probability of downward mobility from the 75th percentile was strongly related to tract-level single parenthood. At nearly −0.55, the strength of the correlation was tied with that for the share of adults who graduated from college and only behind mean household income (Chetty et al. 2026, online appendix, fig. IV). A footnote indicated that, conditional on having parents at the 25th percentile, the cross-CZ correlations between single parenthood and other outcomes were "qualitatively similar" to the correlations between single parenthood and upward mobility. Those outcomes included CZs' average individual income rank, employment rate, incarceration rate, and teenage birth rate (Chetty et al. 2026, 24–25).

"A Practical Method to Reduce Privacy Loss When Disclosing Statistics Based on Small Samples." Raj Chetty and John N. Friedman. First Released in March 2019. Published in *AEA Papers and Proceedings* in 2019.

For completeness, we include this short methodological paper, which illustrated its technical point using further results from the tract-level analyses (Chetty and Friedman 2019). Chetty and Friedman found that the higher a census tract's share of families headed by a single parent was, the higher was the teen birth rate among black women who grew up there and had low-income parents. An increase of 10 percentage points in the single-parent share was associated with a 1.4 percentage point higher teen birth rate among low-income black girls.

The findings in the papers so far reviewed essentially involved correlations, with or without controls for other relevant variables. Within a couple of years of their first paper, the Chetty team would get closer to establishing causal relationships between intergenerational mobility and various community characteristics—including community single-parenthood rates.

"The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment." Raj Chetty, Nathaniel Hendren, and Lawrence F. Katz. First Released in May 2015. Published in *The American Economic Review* in 2016.

In mid-2015 and late 2016, the Chetty team released three papers addressing whether neighborhood attributes *causally* affect child outcomes. The fact that

residents of some places have higher intergenerational mobility than residents of others does not necessarily mean the places themselves are responsible for the higher mobility. It may be that the attributes of the families in those places are such that their children would have had high intergenerational mobility no matter where they grew up. This distinction is a crucial one. It addresses the question of whether moving disadvantaged children to a high-mobility place like Salt Lake City would improve their outcomes or whether those outcomes would be unaffected because Salt Lake City's disadvantaged children would do well anywhere.

The first paper released by the team—authored by Chetty, Hendren, and Harvard's Lawrence Katz—analyzed a policy experiment that randomly assigned people to either obtain a housing voucher restricted to lower-poverty neighborhoods, obtain an unrestricted housing voucher, or receive no voucher (Chetty et al., "The Effects of Exposure," 2016). Children in families assigned the restricted voucher had better outcomes on several dimensions than the other children if their family moved before adolescence, implying that living in a higher-income community was relatively advantageous for kids. This so-called practice of "moving to opportunity," however, was slightly harmful on average if a family used the restricted voucher during a child's adolescence.

Of note, the authors mention that the lower-poverty neighborhoods that, on average, benefited younger children had lower rates of single parenthood (Chetty et al., "The Effects of Exposure," 2016, 869). The study design did not allow them to determine the extent to which those lower rates were responsible for the improved outcomes. Nevertheless, the finding that moving to a lower-poverty neighborhood improved outcomes strengthens the interpretation that the correlations found in the other OI papers of mobility with community-level characteristics reflect, at least in part, causal relationships.

Notably, the paper also found that living in a lower-poverty neighborhood made preteen girls less likely to subsequently become single mothers or live in a community with lots of single motherhood.

"The Impacts of Neighborhoods on Intergenerational Mobility II: County-Level Estimates." Raj Chetty and Nathaniel Hendren. First Released in December 2016. Published in *The Quarterly Journal of Economics* in 2018.

The second and third OI papers more rigorously addressing causality were released (and later published) as two parts of a single study and turned back to the IRS data. In part I, Chetty and Hendren showed that when families moved to a CZ where permanent residents had higher mobility rates, the longer children spent in the new CZ, the more social mobility they enjoyed. This was true even comparing siblings in the same family. This paper looked at single parenthood only incidentally, showing that the effect of moving to a new CZ wasn't driven by changes in family structure leading to a move (Chetty and Hendren 2018a).

Part II, also authored by Chetty and Hendren, included results addressing the importance of family structure (Chetty and Hendren 2018b). Building on part I, the authors focused on families who moved to a new CZ. They estimated, for children at the 25th percentile of parent income in each CZ, the "fixed effect" of living an additional year there on adulthood income percentile rank.

For a variety of CZ predictors, they then estimated the association across CZs between the predictor and the CZ's fixed effect on mobility. Chetty and Hendren found that the −0.57 correlation between single motherhood and the causal effect of a CZ on mobility was smaller than the −0.76 correlation they found in their earlier papers (correlating single motherhood with mobility rates), but that's still a strong relationship. While single motherhood was the strongest predictor of mobility in the earlier papers, it was tied for the 11th strongest predictor of a CZ's causal effect on mobility (out of 40 predictors). The CZ's share of adults married was ranked 16th, while its share of adults divorced was 37th (Chetty and Hendren 2018b, online appendix, table A.11).

Chetty and Hendren also estimated the causal fixed effect of counties on mobility. Controlling for the unobserved factors common to counties in a CZ, the correlation across counties of community single motherhood and a county's fixed effect on mobility was −0.38. That was the fifth highest of the 40 predictors. The share of adults divorced was ranked 10th, and the share of adults

married was ranked 11th (Chetty and Hendren 2018b, online appendix, table A.12).

Finally, Chetty and Hendren also estimated the fixed effect of CZs and counties on the mobility of children raised at the 75th percentile of income (rather than the 25th percentile). Interestingly, community single motherhood, divorce, and marriage had relatively small correlations with this causal effect across CZs and across counties within CZs. Only the correlation of the community marriage share with the CZ-level fixed effect was larger than 0.20 (or smaller than −0.20) (Chetty and Hendren 2018b, online appendix, tables A.13, A.14).

Note that these correlations do not necessarily represent the causal effect of, for instance, community single motherhood on community mobility. They are just correlations between community single motherhood and whatever it is about CZs that, causally, makes it more or less advantageous for children to spend additional years living in them. However, this paper's results got closer to estimating the extent to which high levels of community single parenthood reduce upward mobility compared with the estimates in OI's other papers.

Three other papers by the Chetty team focused on demographic differences in mobility. The patterns they reported offer additional hints that family structure has causal effects at both the family and community levels, though they are not neatly consistent.

"Childhood Environment and Gender Gaps in Adulthood." Raj Chetty, Nathaniel Hendren, Frina Lin, Jeremy Majerovitz, and Benjamin Scuderi. First Released in January 2016. Published in *The American Economic Review* in 2016.

Two years after Chetty et al. (2014) and before Chetty and Hendren (2018a, 2018b), Chetty and Hendren teamed up with three new coauthors from Harvard and Stanford on a study examining how mobility differs for girls and boys (Chetty et al., "Childhood Environment," 2016). Using the same IRS data as in their previous papers, they looked at four outcomes: employment, earnings, income rank, and college attendance. Most of the paper focused on employment.

In a first set of findings, the authors reported that in adulthood, men did worse relative to women if they grew up with low income than they did if their parents had higher income. Men's employment rates were generally higher than those of women. But if they grew up in poor families, their employment rates tended to be lower than those of women. Men's earnings and income rank were also generally higher than for women, but the gap was smaller comparing adults who grew up poor than it was comparing adults who grew up rich. Male college attendance rates were generally lower than female rates, but the disadvantage was greater comparing men and women who grew up poor.[7]

This pattern of gender gaps being relatively worse for low-income boys turns out to be linked to family structure, at least regarding employment. Chetty and his team found that among children of married parents, men were more likely to be employed than women regardless of their parents' income. However, among the children of single parents, if they were raised in the bottom 40 percent of income, women were more likely than men to be employed (Chetty et al., "Childhood Environment," 2016, online appendix, fig. 3).[8] Single parenthood also looked harmful to upper-income men; rather than the employment gap favoring men, men and women were equally likely to be employed if they grew up with a single parent with income in the top 60 percent (online appendix, fig. 3). Frustratingly, OI did not include or mention results using earnings, household income percentile, or college attendance as the outcome, so it is not clear whether gender gaps on these dimensions were also confined to or worse for adults with low-income parents.

These patterns once again involve correlations, but they accord with the idea that growing up fatherless (the bulk of single parents are mothers) is more detrimental to boys than girls. Moreover, the results involve family-level measures of single parenthood and correlations across families rather than community-level measures and correlations across communities.

The same caveats regarding correlations of single parenthood and mobility at the community level apply to

7 Many of these results are presented in appendix tables and figures, available at Chetty et al. ("Childhood Environment," 2016, online appendix).

8 As of 1998, around the time parental incomes were measured, over two-thirds of single-parent families were in the bottom 40 percent of income. US Census Bureau (1999, table 5).

family-level correlations. Family structure was measured in a single year of childhood, which means some children who previously or subsequently experienced single parenthood were classified as having grown up with two parents. Conditioning on parental income may dilute the impact of family structure on individual outcomes, since family structure potentially affects parental income percentile. And conditioning on parental income also risks comparing children of single parents with children of especially disadvantaged married parents, such that any harm done by single parenthood gets washed out by the harm done by those unobserved married-parent disadvantages in a correlation.

A second set of findings in this paper looked at variation in employment across CZs among women and men.[9] Geographic variation in the employment gender gap disproportionately reflected variation in employment rates among men who were raised poor. Further, geographic variation in the gender gap disproportionately reflected variation in employment rates among men who were raised poor *and by a single parent*.[10]

Next, the authors focused on adults raised in the bottom quintile and examined what factors were correlated with the gender gap in employment rates for this group across CZs. They found that "boys have lower employment rates than girls in areas with three characteristics: (i) a larger fraction of black residents; (ii) greater residential segregation [by race or income]; and (iii) less stable family structures, as measured by the fraction of single mothers and marriage rates" (Chetty et al., "Childhood Environment," 2016, 286–87). (Rounding out the top six correlations, their results also indicated that places with longer commute times had worse gender gaps in employment for men.) These correlations, including the community single-motherhood correlation, were sizable even restricting to children with married parents.[11] CZ divorce rates were not strongly correlated with CZ gender gaps.

The authors then pitted community single-motherhood rates as a predictor of gender gaps against the share of a CZ that was black and against community residential segregation by income, using a multivariate model including all three. They found that single motherhood was no longer robustly associated with the employment gender gap, though the other two variables remained correlated with the gap. The same was true for the gender gap in adulthood income ranking. When Chetty and his colleagues looked at the gender gap in a CZ's causal effect on income ranking, using the approach from Chetty and Hendren (2018b), only residential segregation remained associated with gender gaps.[12]

These results, interpreted causally, suggest that community single-motherhood rates appear to affect the gender gap only among people raised in poor families; the correlation is really just a by-product of CZs with high income segregation (and perhaps large black populations) having higher single-motherhood rates and larger gender gaps. This finding is in tension with the paper's earlier result that at the national level, the gender gap in favor of women occurs only among adults raised by single parents. That earlier analysis compared adults who, *individually*, were raised by either a single or married parent, while the analysis at the end of the paper compared *community* single-motherhood rates across CZs. Family structure appears important in the former but incidental in the latter.

"Race and Economic Opportunity in the United States: An Intergenerational Perspective." Raj Chetty, Nathaniel Hendren, Maggie R. Jones, and Sonya R. Porter. First Released in March 2018. Published in *The Quarterly Journal of Economics* in 2020.

Though focused on racial disparities, the particular mobility problem of boys was highlighted again in this paper coauthored by Chetty and Hendren with Census

9 These analyses were restricted to people whose parents didn't change CZs. See Chetty et al. ("Childhood Environment," 2016, online appendix, figs. 6, 7).

10 Among children of married parents, the cross-CZ variation in employment rates was lower among men than among women, regardless of parental income. But among children of single parents, the cross-CZ variation in employment rates was larger among men than among women for people raised in the bottom 60 percent of parental income, and the variation was greater among men the lower their parental income was. While variation in male employment across CZs was lower the higher their parental income was for men raised by married parents and by single parents, the gradient was larger for the latter. See Chetty et al. ("Childhood Environment," 2016, online appendix, fig. 7).

11 See Chetty et al. ("Childhood Environment," 2016, online appendix, table 2).

12 See Chetty et al. ("Childhood Environment," 2016, online appendix, table 3).

Bureau researchers (Chetty et al. 2020). As in Chetty et al. (2026), the authors linked IRS data with data from the Census Bureau. The paper first reported that, at every level of parental income, black and Native American children tended to have lower household income in adulthood than white, Hispanic, and Asian children. Most of the rest of the paper focused on the black-white mobility gap.

Family structure came into play quickly. The authors noted that the black-white mobility gap tended to be quite a bit smaller when looking at the children's individual income as adults rather than their household income as adults. For instance, the black-white gap using the usual OI upward mobility measure (typical adulthood income percentile conditional on being raised at the 25th percentile) was 13 percentiles when adults' household income was examined but 4 percentiles looking at individual income (Chetty et al. 2020, figs. II, IV).

This difference reflects the lower marriage rate of blacks, which leads to lower household incomes. While 55 percent of whites in the study were married as of their mid-30s, just 16 percent of blacks were (Chetty et al. 2020, online appendix, table IV). This marriage gap was only slightly smaller holding constant parental income. Chetty and his coauthors noted that "white children at the bottom of the income distribution are as likely to be married as black children at the 97th percentile of the parental income distribution" (738).

These findings related to the family structure of the children as adults rather than their family structure when they were growing up. The authors' remaining analyses examined individual income so as not to introduce complications related to adulthood family structure. However, most of the OI studies look at household incomes, and in those analyses, family structure can affect mobility not just through parental influences on children but by reducing the number of earners in a household when those children are adults.

Strikingly, the black-white mobility gap using individual income was confined to men. The gap in upward mobility was 10 percentiles for men, while it actually favored black women over white women by 1 percentile (Chetty et al. 2020, fig. V).

The authors argued that family-level single parenthood did not seem to be a significant factor in explaining the male black-white mobility gap. The gap among men raised by a single parent was 10 percentiles—the same as for men generally. Among men raised by two parents, the gap was still 8 percentiles (Chetty et al. 2020, online appendix, fig. VI). In multivariate models assessing whether the black-white mobility gap narrowed after controlling for parental family structure, the results for both men and women barely changed. That was true looking at the racial gaps for both lower-income and upper-income children (fig. VIII).

However, the same methodological caveats already noted in summarizing the other OI papers apply to this one too. In particular, this study offered some evidence about the extent to which using mobility as an outcome—which holds constant parental income—might understate the importance of family structure. Across all boys, the black-white gap in adulthood income was 18 percentiles (Chetty et al. 2020, online appendix, fig. VII). Note that this was the gap *without* restricting to men who grew up in lower-income or upper-income families. Controlling for parental income, the black-white gap shrank to 10 percentiles (for lower-income boys) or 12 percentiles (for upper-income boys) (fig. V). That's a narrowing of 6–8 percentiles after conditioning on parental income.

When the authors instead controlled for single parenthood (without controlling for parental income), the gap *also* narrowed substantially—from 18 percentiles to 13 percentiles, a reduction of 5 percentiles (Chetty et al. 2020, online appendix, fig. VII). Chetty and his colleagues emphasize that *after* conditioning on parental income by looking at only lower-income boys or upper-income boys, the racial gap in adult income is roughly the same for kids whether or not they are raised by single parents. But if one of the ways that single parenthood hurts children's income as adults is by lowering parental income, then this test of the importance of family structure will inadequately capture its impact. (To be clear, the reverse argument is also true: If low income leads to family instability and disruption, then controlling for single parenthood would understate the importance of parental income.)

In the rest of the paper, the authors shifted from family-level explanations for the black-white mobility gap to community-level ones. They examined the correlation of upward mobility rates with 35 variables across census tracts, separately for black and white men who grew up

poor. (They reported the same correlations for black and white women who grew up poor and for black and white men and women who grew up in upper-income families, but they focused on explaining the racial gap for boys raised in lower-income families.) Among white men, a tract's single-parenthood rate was tied for the third highest correlation, at 0.50, behind a tract's attitudes toward interracial marriage and mean household income and tied with the share who graduated from high school. A tract's share of adults divorced had the sixth highest correlation with upward mobility (Chetty et al. 2020, online appendix, table XI).

Interestingly, a tract's *overall* single parenthood seems important for upward mobility out of poverty rather than single parenthood among low-income children or even single parenthood among low-income white children. Those correlations are much lower—0.13 or less for tract rates of single motherhood or single fatherhood among low-income white or black children (Chetty et al. 2020).

The conclusion is that upward mobility out of poverty for white men has more to do with a community's overall rate of single parenthood than with its rate of single parenthood among poor white families or poor families generally. This curious finding points, again, to the importance of assessing the correlation of single-parenthood rates with adult income *before* conditioning on parental income. If single parenthood hurts upward mobility just by lowering parental income, then tract-level variation in single parenthood among poor families will not be correlated strongly with variation in adult incomes.

Among black men, single parenthood had the highest correlation with upward mobility of the 35 tract-level predictors, at 0.40. This estimate was lower than for white men, suggesting that community single parenthood was more consequential for white men than for black men. The share of adults married had the fourth highest correlation. Again, rates of single motherhood or single fatherhood among low-income black or white children were not strongly correlated with upward mobility among black men (Chetty et al. 2020).

In predicting a tract's upward mobility *gap* between white and black boys raised poor, the only variable with a strong correlation was openness to interracial marriage among residents of the state where a tract was located.

Other findings related to male-female differences in upward mobility. More single motherhood among low-income black or white children in a census tract was associated with less upward mobility for low-income black and white boys but *more* mobility for low-income black and white girls. Because of this dynamic, lower single motherhood among poor blacks or whites tended to reduce the mobility gap between women and men who grew up poor (for both blacks and whites) (Chetty et al. 2020, online appendix, tables XI, XIII).

Tract-level single *fatherhood* among low-income black families was positively correlated with the upward mobility of poor black boys (meaning it was associated with more mobility) but negatively correlated with the upward mobility of poor black girls. In contrast, single fatherhood among low-income white families seemed to hurt both poor white boys and girls.

Following these analyses, the authors then focused on the 50 percent of census tracts with the lowest poverty rates, looking again at correlations between tract characteristics and male upward mobility. The results related to family structure were similar to those in the full analyses, except that single parenthood and marriage were only weakly correlated with black boys' upward mobility out of poverty (Chetty et al. 2020, online appendix, table XII). The dampening of these correlations may reflect reduced variation in single parenthood once the poorest communities are dropped, once again pointing to the potential importance of family structure in affecting parental income.

Across the low-poverty tracts, the correlation for black boys between a tract's upward mobility rate and its rate of single motherhood among low-income black children was weak, but it was essentially zero for white boys (Chetty et al. 2020, online appendix, table XII). As the share of poor black children headed by single mothers fell from 80 percent to 20 percent, the typical percentile reached by black men who grew up poor rose from the 40th or 41st percentile to the 43rd or 44th percentile (fig. XII). The typical percentile reached by white men who grew up poor was steady at about the 50th percentile regardless of the share of single motherhood among poor black children. The black-white upward mobility gap thus was roughly one-third lower in tracts with a 20 percent rate of low-income black single motherhood than in tracts with an 80 percent rate. These results held after restricting the

analyses to native-born children (763n31). Black-white gaps in adult employment and incarceration for children raised poor also were smaller the lower the tract-level single motherhood among poor black children was (fig. XII). However, to belabor the point, if single motherhood affects parental income (and whether one lives in a nonpoor census tract), then this exercise understates how much single motherhood affects black-white inequality.

In terms of male-female mobility gaps, employment rates of black women who grew up poor were unrelated to the share of a tract's poor black children raised by a single mother. As a result, lower tract-level single motherhood among poor blacks also tended to reduce the employment gap between black women and men who grew up poor (Chetty et al. 2020, fig. XII).

The authors also show that across low-poverty tracts, single-motherhood rates among low-income *white* families have little to no correlation with the mobility of low-income black boys but are associated with less mobility among low-income white boys (Chetty et al. 2020, fig. XII, table II).

Once again, the evidence suggests that community-level single parenthood is more harmful than family-level single parenthood. The relationship between the upward mobility of low-income black boys and a tract's single-motherhood rate among low-income black children held for boys with married parents and boys with single mothers (Chetty et al. 2020, table II).

The paper's appendix tables also provided evidence on mobility for children raised at the 75th percentile of parental income (Chetty et al. 2020, online appendix, tables XI, XIII). Tract-level divorce and single-parenthood rates were moderately correlated with the upward mobility of white boys and among the top five predictors. Family-structure variables were less predictive of black boys' upward mobility, but marriage and single-parenthood rates were among the top 10 predictors. Among black and white girls, divorce and single-parenthood rates were moderately correlated with upward mobility but not among the top 10 predictors. Tract-level mobility gaps between black and white boys and girls raised at the 75th percentile weren't well predicted by family structure variables.

A final chart in the paper drove home the potential importance of community single-motherhood rates in contributing to black-white inequality. Only 3 percent of white children lived in a census tract where half of white children or more had a single mother. But for black children, 86 percent lived in a tract where at least half of black children had a single mother (Chetty et al. 2020, fig. XIV).

"Changing Opportunity: Sociological Mechanisms Underlying Growing Class Gaps and Shrinking Race Gaps in Economic Mobility." Raj Chetty, Will S. Dobbie, Benjamin Goldman, Sonya R. Porter, and Crystal Yang. First Released in July 2024. Will Be Published in *The Quarterly Journal of Economics* in 2026.

This recent paper from Harvard, Cornell, and Census Bureau researchers combined Census Bureau and IRS data (Chetty et al. 2025, forthcoming). It examined trends in mobility for lower-income blacks and whites and for upper-income whites. Specifically, the study sought to explain the racial mobility gap's narrowing for cohorts born between 1978 and 1992 and the adult income gap's widening comparing whites in lower-income families with those in upper-income families as children.

The outcome of interest in both cases was the adult household income percentile rank. When comparing lower-income blacks with lower-income whites, that amounts to looking at the average income rank conditional on being raised at the 25th percentile—the same upward mobility measure used in most of the OI research. Upward mobility by this measure rose by 1–2 percentiles among lower-income blacks but fell by over 2 percentiles among lower-income whites. Meanwhile, among upper-income blacks, the expected adulthood income rose by 1.5 percentiles, and it rose by nearly 1 percentile among upper-income whites (Chetty et al. 2025, tables A.3, A.4).

The evidence in this paper suggests that changes in the share of blacks and whites and lower- and upper-income children personally experiencing single parenthood did not much explain changes in these racial and class gaps. Growing up with two parents became rarer among lower-income blacks and whites and upper-income blacks and whites, though it was only a 1 percentage point difference for upper-income whites. However, the racial single-parenthood gap among poorer children narrowed slightly over the 15 years, from 32 percentage points to 30 percentage points. (The gap

in single motherhood was much smaller among black and white children raised at the 75th percentile, and it too fell over time.) The class gap in single parenthood among white children widened by nearly 9 percentage points while narrowing by 4–5 points among black children (Chetty et al. 2025, tables A.3, A.4).

These changes are directionally consistent with the possibility that changes in family structure narrowed the black-white mobility gap among lower-income children and widened the class gap among white children. Moreover, the racial gap in mobility fell much more among men than among women, largely because it was small to begin with among women. It *favored* black women over white women by the end of the 15 years (Chetty et al. 2025, fig. A.8). That, too, suggests that changes in father absence could be a key factor.

However, two findings in the OI paper cast doubt on this possibility. First, the racial mobility gap narrowed even more among children raised by a single parent and among children raised by married parents than when all lower-income children are pooled (Chetty et al. 2025, fig. A.9 panels I, J). If changes in family structure had driven changes in the racial mobility gap, we would have expected to see the gap fall much less after conditioning on family structure. Second, in a multivariate model that pooled black and white children raised in lower-income families and controlled for whether someone grew up with two parents, the racial mobility gap was even larger than in the main analyses. The class gap among whites did not shrink much after controlling for single parenthood (Chetty et al. 2025, fig. IV). These analyses are again vulnerable to the critiques we have already raised.

The paper also looked at whether community-level changes in family structure might have affected adulthood income. Here, the evidence suggests that growing up in a community where single parenthood is common may be detrimental.

Across counties, the change in the parental marriage rate was strongly associated with the change in adulthood income. This was true for children pooled together but also separately for lower-income children, whether black or white, and upper-income white children (Chetty et al. 2025, figs. V, A.28). The association between the change in parental marriage and the change in adulthood income was a bit smaller than the association between county employment rate change and adult income change. The change in the parental mortality rate was also more strongly correlated with change in adulthood income than was the change in parental marriage (table A.23, figs. V, A.24 panel F, A.27, A.28).

Looking at the marriage rates of adult children rather than their household income ranks, the change in marriage rates across counties was associated with the change in *parental* marriage rates. This was true for white and black lower-income children and for upper-income white children. The change in parental marriage rates was a stronger predictor of the change in child marriage rates than was the change in parental employment rates (Chetty et al. 2025, table A.23).

When the change in parental marriage rates was pitted against the change in parental employment rates in a single model, parental marriage rates generally had the stronger association across counties with changes in both adulthood income ranks and marriage rates. That was true looking at lower- and upper-income black and white families, except that the correlation with employment rate change was stronger for lower-income black and white children. Controlling for the change in employment rates did not weaken much the strength of the correlation of parental marriage rates with outcomes. Controlling for the change in parental marriage rates did weaken the strength of the correlation of parental employment rates with outcome when looking at upper-income white children (Chetty et al. 2025, table A.23).

Conclusion

The OI team has demonstrated ingenuity and creativity in carrying out its analyses over more than a decade. The project of expanding opportunity would benefit greatly from OI focusing more strongly and intentionally on family structure. While we trust that OI researchers would come up with more clever analyses once they set out to tackle the subject, we offer a few starting ideas for advancing the state of knowledge around family structure and opportunity.

- Measure family structure as ever having lived with a single parent and repeat various analyses

conducted in past work. This could also perhaps be done at the community level.

- Measure family structure as having changed family structures versus having always been in an intact family versus always having been in a single-parent family.

- Plot rates of single parenthood by parental income percentile, including separately by race. Also, plot rates of community-level single parenthood by parental income percentile.

- Plot adult household income across the parental income distribution, showing the associations for children of both single parents and married parents. Do the same for individual income, and show the associations separately by sex and race. Doing so would clarify that even if these associations are similar regardless of family structure, the family-structure gap in outcomes conditional on parental income is large at all levels of parental income. That would illustrate graphically that family structure can affect not just the correlation between parental income and adult outcomes but the level of parental income.

- Estimate models that predict adult outcomes from single parenthood before conditioning on parental income. Examine these alongside the models predicting adult outcomes from parental income. Then pit the two predictors against each other and see how each association changes.

- Examine whether parental income is associated with adult marriage and single-parenthood rates. Do the same for parental family structure.

- Examine the extent to which economic connectedness is predicted by family structure.

- Estimate "family fixed effects" models that include children in the same family who either did or didn't experience single parenthood, controlling for all the family-level influences they share, to assess the causal impact of family structure on adult outcomes.

- Treat single parenthood as the main explanatory variable of interest and explore the pathways by which it might affect adult outcomes (via successively added control variables).

- Look at the relationship between community-level change in mobility and community-level change in single-parenthood rates.

We hope that this review has clarified the suggestive evidence that already exists across the OI research that family structure may be crucial for upward mobility.

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About the Authors

Scott Winship is a senior fellow and the director of the Center on Opportunity and Social Mobility at the American Enterprise Institute, where he researches social mobility and the causes and effects of poverty. He also focuses on economic insecurity and inequality, among other issues.

Mariana Icaza Díaz is a research assistant at the Center on Opportunity and Social Mobility at the American Enterprise Institute.

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Robert Doar, president; Scott Winship, director, AEI's Center on Opportunity and Social Mobility; Kevin Corinth, deputy director, AEI's Center on Opportunity and Social Mobility, and editor, Perspectives on Opportunity