

THE EQUALITY OF OPPORTUNITY PROJECT

Raj Chetty, Harvard University
Nathaniel Hendren, Harvard University
Patrick Kline, University of California Berkeley
Emmanuel Saez, University of California Berkeley

The United States has historically been viewed as the “land of opportunity,” a society in which a child’s chances of succeeding do not depend heavily on her parents’ income or circumstances. But there is growing evidence that intergenerational income mobility in the U.S. is actually lower than in many other developed countries. Building on our prior research, we set out to study whether tax expenditures such as the Earned Income Tax Credit can increase the level of intergenerational income mobility in the U.S.

We began our analysis by compiling statistics from millions of anonymous earnings records to measure intergenerational mobility across areas of the United States. The core sample of children used to calculate these local intergenerational mobility measures consists of children who were born in 1980 or 1981 and are U.S. citizens as of 2013. We used family measures of (pre-tax) income (summing across married spouses) both for parents and children (when adults). We measure children’s household income in 2010-2011, when they are approximately 30 years old. We measure their parents’ household income between 1996 and 2000.

Using these income data, we calculate two measures of intergenerational mobility. The first, which we term “relative mobility”, measures the difference in the expected economic outcomes between children from high-income and low-income families. The second, which we term “absolute upward mobility”, measures the expected economic outcomes of children born to a family earning an income of approximately \$30K (the 25th percentile of the income distribution), which is the income range targeted by tax expenditures such as the EITC and Child Tax Credit.

We constructed measures of relative and absolute mobility for 741 “commuting zones” (CZ’s) in the United States. Commuting zones, constructed by Tolbert and Sizer (1996) based on Census data, are geographical aggregations of counties based on commuting patterns that are similar to metro areas but also cover rural areas. Children are assigned to the CZ based on their location at age 16 (no matter where they live today), so that the location can be interpreted as where a child grew up. When analyzing local area variation, we continue to rank both children and parents based on their positions in the national income distribution. Hence, our statistics measure how well children do relative to those in the nation as a whole rather than those in their own particular community.

We find substantial variation in mobility across areas. To take one example, children from families at the 25th percentile in Seattle have outcomes comparable to children from families at the median in Atlanta. Some cities – such as Salt Lake City and San Jose – have rates of mobility comparable to countries with the highest rates of relative mobility, such as Denmark. Other cities – such as Atlanta and Milwaukee – have lower rates of mobility than any developed country for which data are currently available.

Using the statistics we constructed, we turned to the question of whether the differences across areas in relative and absolute mobility are driven by tax expenditures. We found a significant correlation between both measures of mobility and local tax rates, which are tax expenditures for the federal government because they are deductible from federal income taxes. We found a weaker correlation between state EITC policies and rates of intergenerational mobility. Although tax policies account for some of the variation in outcomes across areas, much variation remained to be explained. To understand what is driving this variation and better isolate the effects of the tax expenditures themselves, we considered other explanatory factors.

We first evaluated three factors that could potentially bias our conclusions about geography and mobility. First, we verified that our measures of mobility are not significantly affected by accounting for differences in cost-of-living across areas by calculating real income adjusted for local price levels. Second, we documented that average income levels in an area were unrelated to levels of upward

mobility. We do find higher rates of upward income mobility in areas with high rates of economic growth over the past decade, but the vast majority of the difference in mobility across areas is unrelated to economic growth. Third, we evaluated the impact of race. We find that rates of upward mobility are significantly lower in areas with a larger African-American population, such as the South. But importantly, we find that white individuals living in areas with large African-American populations also have lower rates of upward mobility. Hence, the spatial variation we document is not directly due to race at the individual level: geography matters even for a person of a given race.

Finally, we examined a range of other factors that have been discussed in the economics and sociology literatures as well as the public debate. We found significant correlations between intergenerational mobility and income inequality, economic and racial residential segregation, measures of K-12 school quality (such as test scores and high school dropout rates), social capital indices, and measures of family structure (such as the fraction of single parents in an area). In particular, areas with a smaller middle class had lower rates of upward mobility. In contrast, a high concentration of income in the top 1% was not highly correlated with mobility patterns. Areas in which low income individuals were residentially segregated from middle income individuals were also particularly likely to have low rates of upward mobility. The quality of the K-12 school system also appears to be correlated with mobility: areas with higher test scores (controlling for income levels), lower dropout rates, and higher spending per student in schools had higher rates of upward mobility. In contrast, we found little correlation between measures of access to local higher education and rates of upward mobility.

Some of the strongest predictors of upward mobility are correlates of social capital and family structure. For instance, high upward mobility areas tended to have higher fractions of religious individuals and fewer children raised by single parents. Each of these correlations remained strong even after controlling for measures of tax expenditures. Likewise, local tax policies remain correlated with mobility after controlling for these other factors.

We caution that all of the findings in this study are correlational and cannot be interpreted as causal effects. For instance, areas with high rates of segregation may also have other differences that could be the root cause driving the differences in children's outcomes. What is clear from this research is that there is substantial variation in the United States in the prospects for escaping poverty. Understanding the properties of the highest mobility areas – and how we can improve mobility in areas that currently have lower rates of mobility – is an important question for future research that we and other social scientists are exploring. To facilitate this ongoing work, we have posted the mobility statistics by area and the other correlates used in the study on the project [website](#).