



## WHERE IS THE LAND OF OPPORTUNITY? THE GEOGRAPHY OF INTERGENERATIONAL MOBILITY IN THE U.S.



Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez

The United States is often hailed as the “land of opportunity,” a society in which a child's chances of success depend little on her family background. Is this reputation warranted? We show that this question does not have a clear answer because there is substantial variation in intergenerational mobility across areas within the U.S. The U.S. is better described as a collection of societies, some of which are “lands of opportunity” with high rates of mobility across generations, and others in which few children escape poverty.

We present a new portrait of social mobility in the U.S. by compiling statistics from millions of anonymous earnings records. Our core sample consists of all children in the U.S. born between 1980-82, whose income we measure in 2011-12, when they are approximately 30 years old.

Using these income data, we calculate two measures of intergenerational mobility. The first, *relative mobility*, measures the difference in the expected economic outcomes between children from high-income and low-income families. The second, *absolute upward mobility*, measures the expected economic outcomes of children born to a family earning an income of approximately \$30,000 (the 25<sup>th</sup> percentile of the income distribution).

We construct measures of relative and absolute mobility for 741 “commuting zones” (CZs) in the United States. Commuting zones are geographical aggregations of counties that are similar to metro areas but also cover rural areas. Children are assigned to a CZ based on their location at age 16 (no matter where they live as adults), so that their location represents where they grew up. When analyzing local area variation, we 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 25<sup>th</sup> 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.

Next, we analyze what drives the variation in social mobility across areas. The spatial patterns of the gradients of college attendance and teenage birth rates with respect to parent income across CZs are very similar to the pattern in intergenerational income mobility. The fact that much of the spatial variation in children's outcomes emerges before they enter the labor market suggests that the differences in mobility are driven by factors that affect children while they are growing up.

We explore such factors by correlating the spatial variation in mobility with observable characteristics. We begin by showing that upward income mobility is significantly lower in areas with larger African-American populations. However, white individuals in areas with large African-American populations also have lower rates of upward mobility, implying that racial shares matter at the community (rather than individual) level. One mechanism for such a community-level effect of race is segregation. Areas with larger black populations tend to be more segregated by income and race, which could affect both white and black low-income individuals adversely. Indeed, we find a strong negative correlation between standard measures of racial and income segregation and upward mobility. Moreover, we also find that upward mobility is higher in cities with less sprawl, as

measured by commute times to work. 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**. CZs with larger Gini coefficients have less upward mobility, consistent with the “Great Gatsby curve” documented across countries (Krueger 2012, Corak 2013). In contrast, top 1% income shares are not highly correlated with intergenerational mobility both across CZs within the U.S. and across countries. Although one cannot draw definitive conclusions from such correlations, they suggest that the factors that erode the middle class hamper intergenerational mobility more than the factors that lead to income growth in the upper tail.

Third, proxies for the quality of the K-12 **school** system are also correlated with mobility. Areas with higher test scores (controlling for income levels), lower dropout rates, and smaller class sizes have higher rates of upward mobility. In addition, areas with higher local tax rates, which are predominantly used to finance public schools, have higher rates of mobility.

Fourth, **social capital** indices (Putnam 1995) -- which are proxies for the strength of social networks and community involvement in an area -- are very strongly correlated with mobility. For instance, high upward mobility areas tend to have higher fractions of religious individuals and greater participation in local civic organizations.

Finally, the strongest predictors of upward mobility are measures of **family structure** such as the fraction of single parents in the area. As with race, parents' marital status does not matter purely through its effects at the individual level. Children of married parents also have higher rates of upward mobility if they live in communities with fewer single parents.

We find modest correlations between upward mobility and local tax and government expenditure policies and no systematic correlation between mobility and local labor market conditions, rates of migration, or access to higher education.

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 characteristics 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](#).

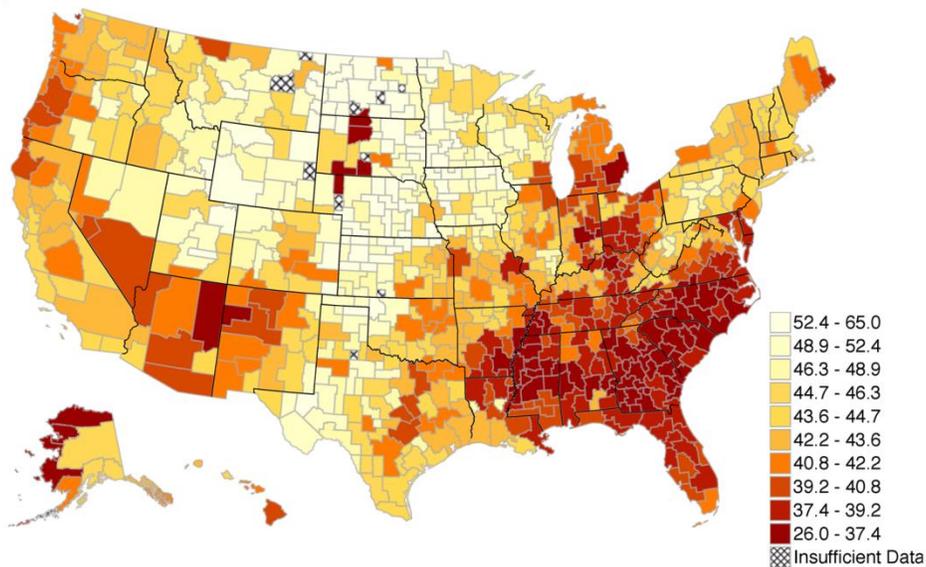


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Is America still the “land of opportunity”? We show that this question does not have a clear answer because the economic outcomes of children from low income families vary substantially within the U.S. Some cities have rates of upward income mobility comparable to the most mobile countries in the world, while others have lower rates of mobility than any developed country. These geographical differences in upward mobility are strongly correlated with five primary factors: segregation, income inequality, local school quality, social capital, and family structure. For further information, see the [non-technical summary](#) and the [complete paper](#).



Note: This map shows the average percentile rank of children who grow up in below-median income families across areas of the U.S. (absolute upward mobility). Lighter colors represent areas where children from low-income families are more likely to move up in the income distribution. To look up statistics for your own city, use the [interactive version of this map](#) created by the New York Times.

## Upward Mobility in the 50 Biggest Cities: The Top 10 and Bottom 10

Rank		Odds of Reaching Top Fifth Starting from Bottom Fifth	Rank		Odds of Reaching Top Fifth Starting from Bottom Fifth
1	San Jose, CA	12.9%	41	Cleveland, OH	5.1%
2	San Francisco, CA	12.2%	42	St. Louis, MO	5.1%
3	Washington DC, DC	11.0%	43	Raleigh, NC	5.0%
4	Seattle, WA	10.9%	44	Jacksonville, FL	4.9%
5	Salt Lake City, UT	10.8%	45	Columbus, OH	4.9%
6	New York, NY	10.5%	46	Indianapolis, IN	4.9%
7	Boston, MA	10.5%	47	Dayton, OH	4.9%
8	San Diego, CA	10.4%	48	Atlanta, GA	4.5%
9	Newark, NJ	10.2%	49	Milwaukee, WI	4.5%
10	Manchester, NH	10.0%	50	Charlotte, NC	4.4%

