



Moving Up

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Are we doomed to live in a world where the rich will continue to get richer on the backs of the rest of us? Some of the rhetoric related to increasing inequality leaves the impression that “yes” is the only answer to this question.

The growth in measured inequality has been analyzed and puzzled over for several decades, but the publication of Thomas Picketty’s 2014 best seller *Capital in the Twenty-First Century* generated much of the current interest.

Whether or not you agree with Picketty’s assessment of the causes of inequality or the long-run consequences, it is hard to deny that measured inequality has grown.

Here we provide some additional observations about income inequality by focusing on the distribution of per capita income at the county level and identify how changes in inequality and mobility at the county level are related to recent work on intergenerational mobility.

Tracking growth in real income at different points in the income

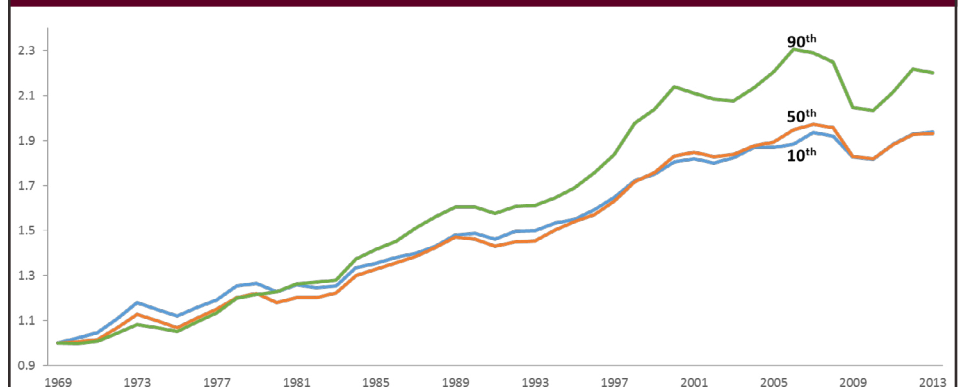
distribution is a common way of illustrating changes in inequality over time. In Figure 1 we present the real per capita county level incomes at the 10th, 50th, and 90th percentiles indexed to their initial values in 1969. The percentiles are defined after weighting by county populations and the calculation of average income excludes transfer payments. By 2013, real per capita income at the 90th percentile in the county level distribution was 2.2 times that of

the income at the 90th percentile in 1969 for an annualized rate of 1.8%.

At the 10th and 50th percentile, per capita real income growth was comparable. Per capita income was about 1.9 times higher in 2013 than income in 1969 for annual real growth rates of 1.5%. Also, by 2013 the ratio of average incomes at 90th to the 10th percentile had grown to 2.1, up 14% from the ratio in 1969.

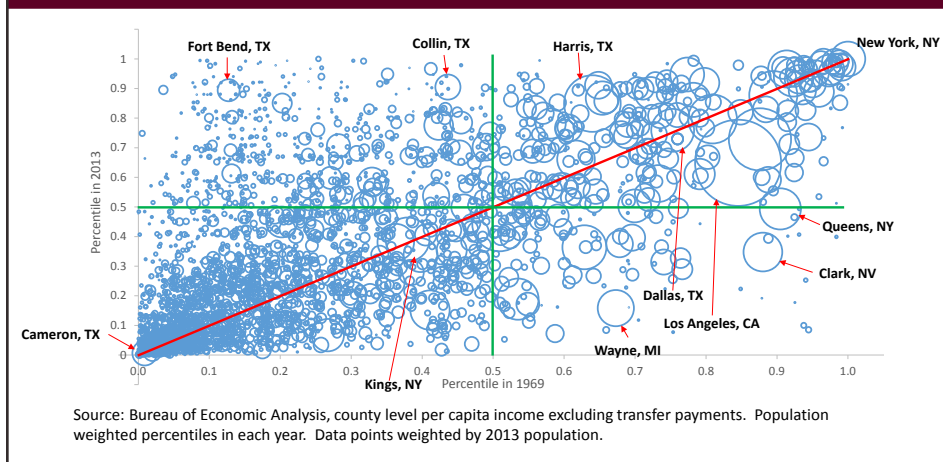
Taken together, the series indicate that county-level incomes have

Figure 1. Indexed County Level Real Per Capita Income by Percentile



Source: Bureau of Economic Analysis, county level per capita income excluding transfer payments. Population weighted percentiles. Real income based on the personal consumption expenditures price deflator.

Figure 2. County Level Personal Income Percentiles in 1969 and 2013



grown across the distribution, but that the growth in income inequality has resulted from faster growth in incomes above the median.

Next, we turn to the related topic of income mobility. While inequality measures indicate changes in the dispersion of income, mobility measures indicate the degree to which an individual or group migrates within a distribution by identifying movements up or down the income distribution over time. The ability to move between places in the income distribution is central in the pursuit of economics opportunities.

At the individual level, we can measure the degree to which individuals born in the same year move relative to one another in the distribution of income each year over their lifetimes. In this way we can determine whether individuals stay in the same relative position throughout their lives or switch places. Mobility measures can also document the degree to which parents' economic positions are related to their kids' positions in the distribution of income among their own peers.

An important recent study ad-

resses this last form of mobility with an impressive data set that combines parents' and children's incomes for over 40 million children using tax return data. This 2014 study by Raj Chetty, Nathaniel Hendren, Patrick Kline and Emmanuel Saez (CHKS), titled "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States," was published in the *Quarterly Journal of Economics*. The study's focus is on children born in the early 1980s. The authors observe parents' incomes between 1996 and 2000 when the children are in their late teens and then identify the children's incomes in 2011 and 2012 when they are about 30.

Because the authors know where children grew up, they can identify how upward mobility varies across the country in areas defined by commuting zones. They find that some areas have distinctly higher upward mobility than others. Their primary measure, termed absolute upward mobility, is the average rank of children who grew up in families at the 25th percentile in the income distribution. Places like Salt Lake

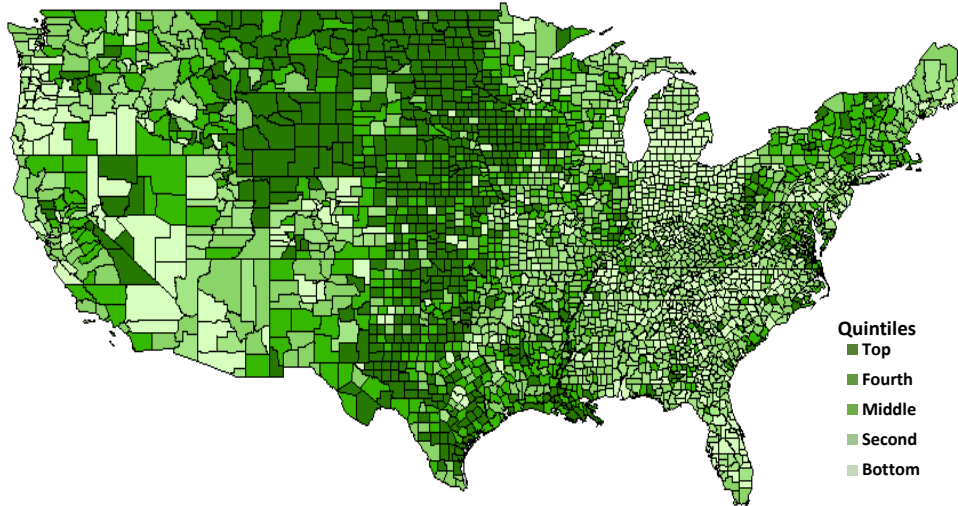
City, Pittsburgh, and San Jose have high upward mobility while Raleigh, Atlanta, and Charlotte have distinctly less upward mobility. The authors find that children raised in areas with better schools, greater family stability and higher levels of social capital (measured by things like voter turnout and community participation) have greater upward mobility. They also find higher mobility in places that have less residential segregation and less income inequality.

The county-level data provide another vantage point on income mobility defined by their movements relative to one another over time. Each county is represented in Figure 2 by a circle, the center of which marks its percentile location in the distribution of county level per capita incomes in 1969 and in 2013. The population of each county as of 2013 define the relative size of each circle. The figure shows that less populous counties are more likely to be below the median in each of the years, while the more populous ones are, in general, above the median in one or both years.

Counties that stayed at the same percentile in 1969 and again in 2013 are located on the red line. Two relatively large counties that retained their same positions in both years, but at opposite ends of the distribution, are New York, NY at the top and Cameron County, Texas at the bottom. Other examples of large counties that remained at about the same locations in both years are Kings County in New York, at about the 38th percentile, and Dallas County, at about the 75th percentile.

Counties that moved up the income distribution are found above

Figure 3. Change in County Level Per Capita Income Percentiles between 1998 and 2012



Source: Bureau of Economic Analysis, county level per capita income excluding transfer payments. Darker shading indicates greater upward movements in the distribution between 1998 and 2012.

the red line while those that move down the distribution are below the line. Notably, three of the counties that moved up the distribution are from Texas. Fort Bend County, TX in the Southwest Houston metropolitan area moved up from the 13th to the 86th percentile. Collin County, home of Plano, TX, in the North Dallas metropolitan area rose from the 44th to the 91st percentile, and Harris County, the center of the Houston metro area, rose from the 64th to the 85th percentile.

Several large counties moved down considerably over time. Wayne County, where Detroit is located, dropped from the 67th percentile in 1969 to the 16th percentile in 2013. Clark County in Nevada, the home of Las Vegas, dropped from the 88th to the 35th percentile, and Queens, New York moved down from the 90th to 49th percentile. Finally, Los Angeles County, with the largest population in 2013, declined from the 85th to 65th percentile between 1969 and

2013.

Figure 3 depicts how far each county moves up or down the per capita income distribution between 1998 and 2012 to correspond with the years used to calculate the mobility measures from the CHKS paper. Counties are divided into quintiles, and the darkest shading identifies the counties that moved up the most while the lightest shading identifies the counties that moved down the most in the distribution.

Over this timespan, the Plains States show high levels of upward mobility, as do many counties in Texas. In contrast, counties in Michigan, Ohio, and Indiana experienced downward mobility as did many counties in the southern states.

These geographic patterns of county-level mobility are similar to geographic patterns based on intergenerational mobility from the CHKS paper. Available with the CHKS paper are county-level esti-

mates of intergenerational mobility for most counties. The counties' percentile difference as illustrated in Figure 3 and the estimates of absolute upward mobility from the CHKS paper are positively related. The unweighted correlation coefficient is 0.56, and the weighted correlation of 0.39.

Given that the upward mobility of the children in the CHKS data affects the county-level income measures, such patterns are expected if the children remain in the same counties. But it also indicates that local economic conditions in which one lives are positively related to upward mobility. Public policies that create, maintain and encourage vigorous economic growth are thus vital to upward mobility.



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