Chetty et al. (2014c)

- **Abstract**: We present new evidence on trends in intergenerational mobility in the U.S. using administrative earnings records. We find that percentile rank-based measures of intergenerational mobility have remained extremely stable for the 1971-1993 birth cohorts. For children born between 1971 and 1986, we measure intergenerational mobility based on the correlation between parent and child income percentile ranks. For more recent cohorts, we measure mobility as the correlation between a child’s probability of attending college and her parents’ income rank. We also calculate transition probabilities, such as a child’s chances of reaching the top quintile of the income distribution starting from the bottom quintile. Based on all of these measures, we find that children entering the labor market today have the same chances of moving up in the income distribution (relative to their parents) as children born in the 1970s. However, because inequality has risen, the conse-
quences of the “birth lottery” – the parents to whom a child is born – are larger today than in the past.
Backgrounds

- A growing public perception that intergenerational income mobility – a child’s chance of moving up in the income distribution relative to her parents – is declining in the United States (e.g., Foroohar 2011, Zakaria 2011).

- Some studies (e.g., Aaronson and Mazumder (2008), Putnam, Frederick, and Snellman 2012) find that income mobility and related indicators have declined in recent decades. But others find no trend in intergenerational income mobility over a similar time period (e.g., Hertz (2007), Lee and Solon (2009), Hauser 2010).
  - Aaronson and Mazumder (2008) do not observe parent income in their data and therefore use the child’s state of birth as a proxy for parent income.
Measuring Intergenerational Mobility

- We decompose the joint distribution of parent and child income into two components: (1) the joint distribution of parent and child ranks, formally known as the *copula* of the distribution, and (2) the *marginal distributions* of parent and child income, which determine the degree of inequality within each generation, typically measured by Gini coefficients or top income shares.

- Mobility based on:
  - Relative positions in the income distribution – e.g., a child’s prospects of rising from the bottom to the top quintile.
  - The probability that a child from a low-income family (e.g., the bottom 20%) reaches a fixed upper income threshold (e.g., $100,000).
  - The difference in expected incomes between children born to low (e.g., bottom-quintile) vs. high (top-quintile) income families.
Data

  - All individuals born between 1980-1993 who are U.S. citizens as of 2013 and are claimed as a dependent on a tax return filed in or after 1996.
    * We link approximately 95% of children in each birth cohort to parents based on dependent claiming, obtaining a sample with 3.7 million children per cohort.
  - Only available starting in 1996.

- Statistics of Income (SOI) annual cross-sections.
  - Stratified random samples covering approximately 0.1% of tax returns.
  - Starting in 1987, the SOI cross-sections contain dependent information, allowing us to link children to parents.
The SOI sample grows from 4,331 children in 1971 to 9,936 children in 1982.

- We define college attendance at age 19 as an indicator for having a 1098-T form in the calendar year the child turns 19. Because 1098-T forms are filed directly by colleges, we have records on college attendance for all children.
  - Using data from 1098-T forms, Chetty et al. (2014a) construct an earnings-based index of “college quality” using the mean individual wage earnings at age 31 of children born in 1979-80 based on the college they attended at age 20.
Discussion

- Intergenerational elasticities of income did not change significantly between the 1950 and 1970 birth cohorts (Hertz (2007), Lee and Solon (2009)).
- Rank-based measures of intragenerational mobility – income mobility over the lifetime for a given individual – are also stable over this period (Kopczuk et al. (2010), Auten et al. (2013)).
- Increase in income inequality in recent decades.
  - Negative correlation between inequality and mobility across countries (Corak (2013)).
    * Much of the increase in inequality has been driven by the extreme upper tail (Piketty and Saez (2003), U.S. Census Bureau 2013).
      - Chetty et al. (2014b) show that there is little or no correlation between mobility and extreme upper tail inequality – as mea-
sured e.g. by top 1% income shares – both across countries and across areas within the U.S. Instead, the correlation between inequality and mobility is driven primarily by “middle class” inequality, which can be measured for example by the Gini coefficient among the bottom 99%.

- Socio-economic gaps in early indicators of success such as test scores (Reardon 2011), parental inputs (Ramey and Ramey 2010), and social connectedness (Putnam, Frederick, and Snellman 2012) have grown over time.
  - A strong cross-sectional correlation across areas of the U.S. between intergenerational mobility and measures of social capital, family structure, and test scores (Chetty et al. (2014b)).
  * Other countervailing trends such as improved civil rights for minorities or greater access to higher education.
References


Chetty, Raj, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez (2014b) “Where is the land of Opportunity? The Geography of Intergenerational


練習問題

1. 上位何パーセントから上位何パーセントにどれだけの確率で移るかについては変わらなくとも、例えばどのパーセントの所でも額が二倍になっている（したがって、所得額の差は開いている）とする。この時、どの様に mobility を定義すると、mobility が上がった、また、下がった、と言うことになるか、それぞれ例を挙げよ。

2. 「this is somewhat surprising ... have grown over time」とあるが、例えばどの様な説明が考えられるか。