

## Land of Opportunity? Economic Mobility in the United States

By Kartik Athreya and Jessie Romero

Income inequality has increased in recent years, while economic mobility has decreased. Many factors contribute to mobility, but for most people advancement depends on opportunities to obtain human capital—opportunities that are not as good for children in poor families. Initiatives that focus on early childhood education seem to yield high returns on investment and potentially could help the United States achieve a more inclusive prosperity.<sup>1</sup>

Income and wealth inequality have grown significantly in recent years. Public discussion of this trend, however, often overlooks the way economic mobility determines what inequality implies for opportunity. If mobility is high, for example, then it's possible that today's poor will be tomorrow's rich. But recent data suggest that mobility in the United States is declining and that children born to poor families have an especially difficult time moving up the income ladder.

From a normative standpoint, there is likely to be more support for policy interventions that seek to equalize opportunities rather than outcomes. One such intervention is greater investment in early education. High-quality early childhood education equips children with the skills they need to succeed at each subsequent stage of life, yet in the United States, access to such education appears to strongly depend on parents' income. Children of poor parents are thus at a disadvantage from the very beginning. But these children are not the only ones who are affected; all else equal, a more skilled workforce increases the productivity of society as a whole. Enhancing early

education opportunities for the initially disadvantaged could therefore lead to better economic outcomes for everyone.

### Trends in Income Inequality

Income inequality in the United States is increasing. In 1979, the top 1 percent of households took home 7.4 percent of total after-tax income in the United States. By 2007, the share had more than doubled to 16.7 percent, according to the Congressional Budget Office. At the same time, the share of income earned by households at all levels of the remaining distribution stayed flat or declined.<sup>2</sup> These changes are a result both of increasing concentration of all types of income at the top of the distribution and a shift in the composition of income toward business income and capital gains. This compositional change also makes incomes at the top of the distribution more volatile, but the trend is clearly one of growing inequality. (See Figure 1.)

The trend continued after the 2007–09 recession. Although average real income for the top 1 percent fell about three times more during

the recession than for the remaining 99 percent, the decline was almost entirely due to the stock market crash. As markets recovered in 2010, incomes for the top 1 percent increased 11.6 percent, compared to only 0.2 percent for all other households.<sup>3</sup>

### Trends in Economic Mobility

An observation of inequality at any point in time is only a snapshot; to understand how that snapshot developed, one must study economic mobility. Intragenerational mobility refers to how a person's economic status changes over her lifetime. Intergenerational mobility describes the degree to which a person's economic status as an adult differs from that of her parents.

If intragenerational mobility is high, then any snapshot of inequality will overstate the actual long-term inequality among individuals. For example, it is possible that the large gap in recent years between those in the top percentile and the rest of the distribution reflects an increase in the variation of annual earnings due to stock options and large bonuses. If that were

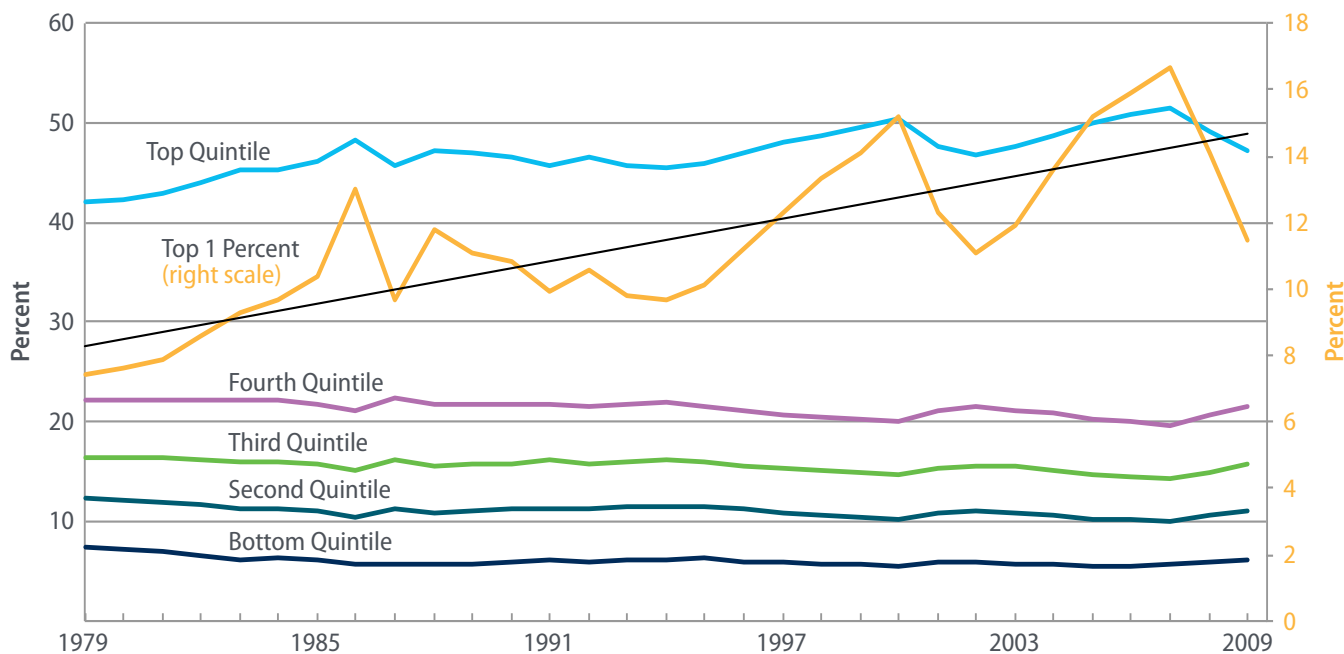
the case, short-term inequality might be high, but long-term inequality could be much lower, reflecting high mobility.

Recent research suggests this is not the case. Wojciech Kopczuk, Emmanuel Saez, and Jae Song study workers' earnings between 1937 and 2004 and find that short-term (five-year) mobility has not changed over the period, which implies that greater volatility of short-term earnings is not the source of observed higher inequality.<sup>4</sup> Instead, higher inequality is likely the result of increased variation in lifetime earnings, including higher earnings at the top of the distribution.

The authors also find that long-term income mobility, from the beginning to the end of working life, actually increased significantly for all workers between 1942 and 1999. There is significant heterogeneity among groups of workers, however. Although on average men are more upwardly mobile than women, men's mobility has been stable or declining during the sample period. But women's mobility has

**Figure 1: Income Distribution by Quintiles**

The top quintile (fifth) of households account for about half of after-tax income.



**Note:** Quintiles are displayed on the left scale; the top 1 percent is displayed on the right scale. After-tax income is defined as market income (labor income, business income, capital income, capital gains, and capital income) net of transfer payments and taxes.

**Source:** Congressional Budget Office

increased greatly since the 1960s, as more women have joined the workforce and moved into higher-paying professions. Thus, the increase in mobility for all workers has been driven by the labor market experiences of women.

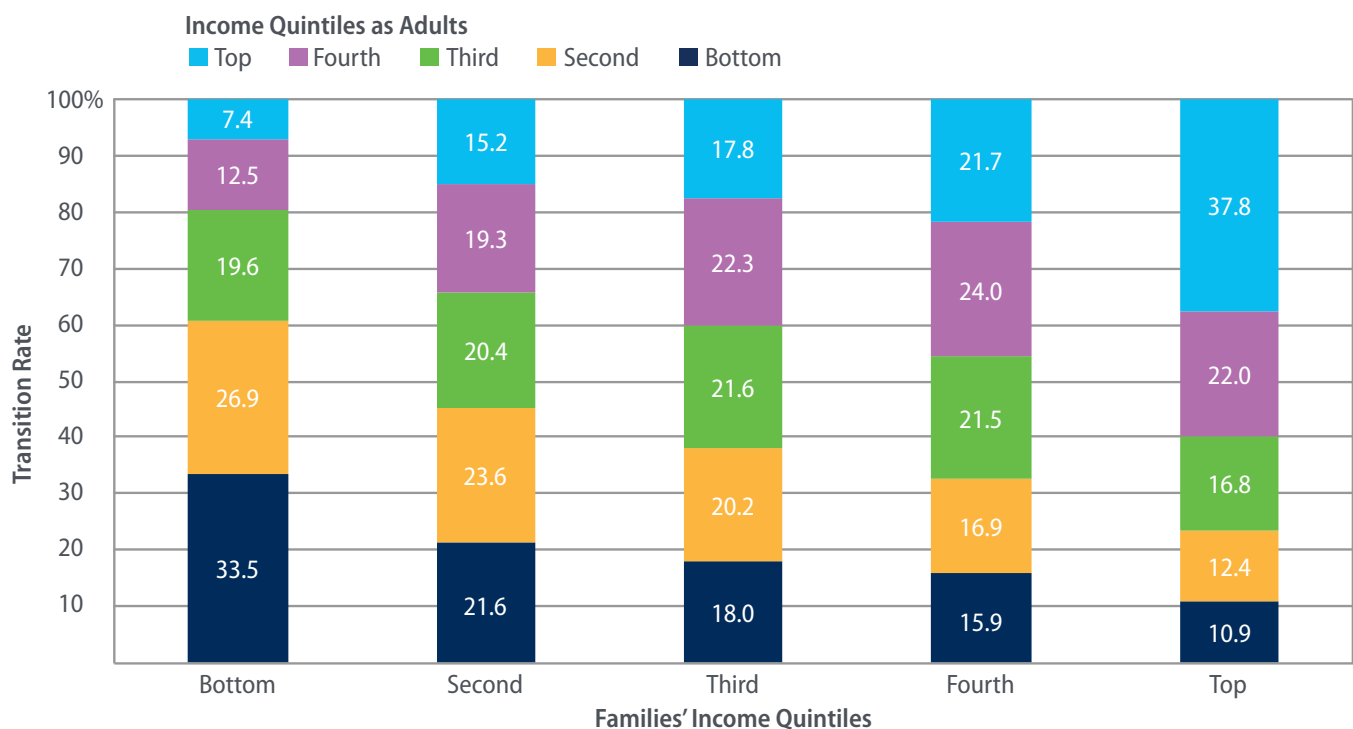
Heterogeneity in intragenerational mobility also is apparent across the income distribution. Gerald Auten, Geoffrey Gee, and Nicholas Turner find that about 75 percent of taxpayers aged 35–40, who were in the second, third, or fourth quintile of the income distribution in 1987, were in a different quintile in 2007.<sup>5</sup> (About 60 percent of those who changed position moved up or down a single quintile.) But the authors find greater persistence at the top and bottom of the distribution: 42 percent of taxpayers in the bottom quintile were still there 20 years later, and 46 percent of taxpayers in the top quintile maintained their positions. The authors also find that the very top earners tended to remain top earners. From 1992 through 2006, between 60 percent and 70 percent of

the top 1 percent in a given year remained there in the following year.

How do these individuals' incomes compare to their parents' incomes? Early studies of the United States and other developed countries found a high degree of intergenerational mobility. Later research, however, found that data used in this work featured biases that would lead to artificially low measurements of the true level of earnings persistence, that is, the degree to which parents' income determines the income of their children.<sup>6</sup> New and better data suggest that intergenerational mobility in the United States has been historically lower than initial estimates implied and that it has declined even further in recent decades.<sup>7</sup> In addition, most research suggests that people in the United States are somewhat less mobile than people in many other developed countries.<sup>8</sup>

As with intragenerational mobility, intergenerational mobility varies significantly according to income.

**Figure 2: Intergenerational Income Quintile Transition Rates**



**Note:** The figure shows what percentages of adolescents from families in a given income quintile remained in that quintile or transitioned to a different quintile as young adults. For example, 33.5 percent of adolescents from families in the bottom quintile remained in the bottom quintile, while 26.9 percent moved to the second quintile. Income data were gathered from 1979 through 1980 and again from 1997 through 2003.

**Source:** Mazumder (2008)

Bhashkar Mazumder finds a great deal of “stickiness” at the top and bottom of the distribution; people whose parents are in the bottom quintile are more likely to be in the bottom quintile themselves, and those whose parents are in the top quintile are likely to remain there.<sup>9</sup> (See Figure 2.) He also finds stark differences between black people and white people and between men and women. Whites appear to be more upwardly mobile and less downwardly mobile than blacks, and more than twice as many whites as blacks experience the “rags-to-riches” scenario of moving from the bottom quintile to the top quintile, 10.6 percent compared to 4.1 percent. Similarly, men are more upwardly mobile and less downwardly mobile than women. The gender gap is trumped by the race gap, however. Both black men and black women are the most likely to remain in the bottom quintile and the most likely to fall out of the top quintile.

### **What Generates Persistence?**

Empirical findings on the persistence of economic outcomes do not explain why such persistence exists in the first place or why it may have increased. Given the high wage premium for college-educated workers, one might conclude that educational attainment is the key to economic mobility. But in fact, educational attainment alone appears to explain less than half the intergenerational transmission of earnings.<sup>10</sup>

Instead, non-cognitive skills such as work ethic, the ability to follow instructions, motivation, and patience may be just as important as cognitive skills in determining future success in the labor market. For example, the General Educational Development (GED) credential is supposed to demonstrate cognitive equivalence between people who have graduated from high school and people who have dropped out and taken the GED exam. But GED holders have much poorer labor market outcomes than high school graduates. The reason may be that many students who earn a GED lack precisely those non-cognitive skills that would have enabled them to complete high school—skills that later on would help them succeed in the labor market.<sup>11</sup>

A consensus now exists among child-development experts that the foundation for acquiring these skills

is laid very early in life, even from infancy. Skill development is hierarchical; the early mastery of basic emotional, social, and other non-cognitive skills makes it easier to learn more complex cognitive skills throughout life. Children who fall behind early have difficulty catching up—and the data suggest that poor children and black children (who are disproportionately poor) are much more likely to fall behind.

A recent report from the Brookings Institution finds that only 48 percent of children from families in the bottom income quintile are ready for school at age 5, compared to 78 percent of children from families in the top quintile.<sup>12</sup> Comparing children by race, 68 percent of white children are ready for school at age 5 versus only 56 percent of black children and 61 percent of Hispanic children. The gap between white and black widens throughout the lifespan. By age 11, 73 percent of white children versus 52 percent of black children have basic reading and math skills. And by age 29, only 33 percent of black people have successfully transitioned to adulthood (defined by the authors as living independently and having either a college degree or a family income at least 250 percent of the poverty level), while 68 percent of white people reach this milestone. Hispanic people fare somewhat better than black people; 66 percent achieve the age-11 milestone, and 47 percent reach the age-29 milestone.

### **Investing in Human Capital**

For most people, labor is what they can sell to generate income. They can increase the value of their labor by acquiring greater skills, but the value of their labor also depends on the supply and demand for their skills in the marketplace.

The industrial revolution, for example, created factories that made workers more productive and more valuable without substantially increasing their skills. But the information revolution has created a marketplace that rewards personally acquired skills, such as computer programming or mathematical analysis. In this new environment, an individual’s innate ability and early life education become critical because they largely determine the levels of skills each person can develop to “rent” to the marketplace.

Given the large earnings gap between workers with and without college degrees, many policies aim to increase college access, for example by increasing federal subsidies for student loans. But it's not clear that college is the best focus for policymakers. The wage premium for college graduates is observed in people who have graduated already; it's not necessarily the case that every person who enrolls in college will receive the same benefit. For example, it's likely that college graduates on average differ from non-graduates in some way that would make them better earners regardless of educational attainment.

Intervening well before college could yield much higher returns. A growing body of research shows that the return on a dollar invested in human capital is higher the earlier that investment occurs. In addition, children who receive high-quality early education fare much better on a variety of socioeconomic measures.<sup>13</sup> This occurs in part because the skills learned early in life prepare children to obtain more complex skills later in life. The most cost-effective policy for increasing equality of opportunity is thus likely to be one that shifts funding away from universal college subsidies and toward early childhood interventions.<sup>14</sup>

Greater public investment in early childhood education cannot replace the advantages that some parents are able to bestow upon their children, nor can it guarantee that all children will grow up to be prosperous. But such investments could give more children the necessary foundation for future acquisition of skills and ensure that large amounts of human capital are not foregone simply because many children are born to poor families. This foregone human capital is a loss not only for the child, but also for society as a whole. According to an influential line of research, long-run economic growth depends on the amount of human capital in a society. Knowledge leads to new ideas and new technologies, which lead to higher productivity, thus raising per capita income and living standards for society as a whole.

Many factors contribute to the attainment and persistence of economic status. But for nearly all people, advancement depends critically on opportunities to

obtain human capital—and those opportunities are not as good for children born to poor families. Policies that aim to equalize these opportunities, particularly early in life, appear to yield a very high return on investment, although much remains to be learned about the feasibility of implementing such interventions on a large scale. Nonetheless, such efforts have the potential to help the United States achieve a more inclusive prosperity. ■

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## Endnotes

- <sup>1</sup> This brief is based on the essay, "Land of Opportunity? Economic Mobility in the United States," by Kartik Athreya and Jessie Romero, which was published in the Richmond Fed's *2012 Annual Report*.
- <sup>2</sup> The CBO defines after-tax income as market income (labor income, business income, capital gains, capital income, and other income) plus government transfers (Social Security payments, unemployment benefits, or in-kind transfers such as food stamps) minus taxes paid. Data are from the supplemental data tables posted at <http://www.cbo.gov/publication/43373>.
- <sup>3</sup> Saez, Emmanuel, "Striking It Richer: The Evolution of Top Incomes in the United States (Updated with 2011 Estimates)," Manuscript, January 2013.
- <sup>4</sup> Kopczuk, Wojciech, Emmanuel Saez, and Jae Song, "Earnings Inequality and Mobility in the United States: Evidence from Social Security Data since 1937," *Quarterly Journal of Economics*, February 2010, vol. 125, no. 1, pp. 91–128.
- <sup>5</sup> Auten, Gerald, Geoffrey Gee, and Nicholas Turner, "Income Inequality, Mobility and Turnover at the Top in the United States, 1987–2010," Paper presented at the Allied Social Science Associations Annual Meeting, San Diego, January 4, 2013.
- <sup>6</sup> See Stokey, Nancy, "Shirtsleeves to Shirtsleeves: The Economics of Social Mobility," in *Frontiers of Research in Economic Theory: The Nancy L. Schwartz Memorial Lectures, 1983–1997*, edited by Donald P. Jacobs, Ehud Kalai, and Morton I. Kamien, pp. 210–241. Cambridge, England: Cambridge University Press, 1998.
- <sup>7</sup> Aaronson, Daniel, and Bhashkar Mazumder, "Intergenerational Economic Mobility in the United States, 1940 to 2000," *Journal of Human Resources*, Winter 2008, vol. 43, no. 1, pp. 139–172.
- <sup>8</sup> Corak, Miles, "Do Poor Children Become Poor Adults? Lessons from a Cross-Country Comparison of Generational Earnings Mobility," in *Research on Economic Inequality*, Vol. 13, edited by John Creedy and Guyonne Kalb, pp. 143–188. Bingley, U.K.: Emerald Group Publishing, 2006.

- <sup>9</sup> Mazumder, Bhashkar, "Upward Intergenerational Economic Mobility in the United States," Economic Mobility Project, The Pew Charitable Trusts, May 2008.
- <sup>10</sup> Bowles, Samuel, Herbert Gintis, and Melissa Osborne Groves, "Intergenerational Inequality Matters," in *Unequal Chances*, edited by Samuel Bowles, Herbert Gintis, and Melissa Osborne Groves, pp. 1–22. Princeton, N.J.: Princeton University Press, 2008.
- <sup>11</sup> Heckman, James J., John Eric Humphries, and Nicholas S. Mader, "The GED," National Bureau of Economic Research Working Paper No. 16064, June 2010.
- <sup>12</sup> Sawhill, Isabel V., Scott Winship, and Kerry Searle Grannis, "Pathways to the Middle Class: Balancing Personal and Public Responsibilities," Brookings Institution Center on Children and Families, September 2012. The authors define "school-ready" as having acceptable pre-reading and math skills and behavior that is generally school-appropriate.
- <sup>13</sup> Heckman, James J., "Schools, Skills, and Synapses," *Economic Inquiry*, July 2008, vol. 46, no. 3, pp. 289–324.
- <sup>14</sup> See Caucutt, Elizabeth M., and Krishna B. Kumar, "Higher Education Subsidies and Heterogeneity: a Dynamic Analysis," *Journal of Economic Dynamics and Control*, June 2003, vol. 27, no. 8, pp. 1459–1502; and Restuccia, Diego, and Carlos Urrutia, "Intergenerational Persistence of Earnings: The Role of Early and College Education," *American Economic Review*, December 2004, vol. 94, no. 5, pp. 1354–1378.

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