

CENTER FOR POLICY INNOVATION

HERITAGE'S "THINK TANK WITHIN A THINK TANK," PROMOTING POLICY DISCUSSION AND DEVELOPING BREAKTHROUGH IDEAS

DISCUSSION PAPER

NO. 12 | JULY 29, 2013

A series of big ideas and policy concepts designed to foster conversation and debate within the policy community.

A Guide to Understanding International Comparisons of Economic Mobility

Donald Schneider

Abstract

International comparisons of economic mobility can be very helpful both in understanding patterns in one's own country and in assessing social conditions and policy impacts, but they can also be misleading when used to rank mobility or economic opportunity in various countries. Drawing inferences from the basic numbers can be dangerous, and it is easy to draw erroneous or at least questionable conclusions from cross-country comparisons. Differences in data collection methods, the inclusion or exclusion of certain forms of income and benefits, and cultural differences are just a few of the reasons to be cautious. It is easy to confuse measures of progress compared with a monetary starting point and measures of progress relative to other people (who may or may not also be progressing).

It is common these days to read articles claiming that the American Dream is dead. In particular, many media stories draw on international data to convey the idea that it is now easier to move up the economic ladder in several other countries, including those in northern Europe, than in the United States. Typical of the headlines, for instance, are:

- "The American Dream Is Alive and Well—Just Not in America."
- "Did the American Dream Emigrate to Europe?"²

■ "The American Dream Moves to Denmark."³

All of the alarming headlines raise the same question: Is there something really wrong here?

International comparisons of economic mobility are useful in terms of providing an important perspective, as they are in other fields such as education and health care. But they can also be misleading when used by analysts and journalists to rank mobility or economic opportunity in various countries. Furthermore, drawing inferences from the basic numbers can be dangerous. As Brookings Institution fellow Scott Winship points out:

This paper, in its entirety, can be found at http://report.heritage.org/cpi_dp12

Produced by the Center for Policy Innovation

The Heritage Foundation 214 Massachusetts Avenue, NE

Washington, DC 20002 (202) 546-4400 | heritage.org

Nothing written here is to be construed as necessarily reflecting the views of The Heritage Foundation or as an attempt to aid or hinder the passage of any bill before Congress.

Media stories often use comparisons of international data to bolster the proposition that the American Dream is actually more alive in Europe than in the U.S. So we asked CPI Research Assistant Donald Schneider to examine the challenges involved in using international data on economic mobility and opportunity.

In some cases, these authors examine inequality in America in light of findings from developing countries, failing to acknowledge that the circumstances of those other nations are so different from ours that they render this research inapplicable to the United States. In still other cases, these economists carelessly mistake correlation for causation.⁴

Some journalists have been careful to note the challenges involved in making international comparisons. In the article "Harder for Americans to Rise from Lower Rungs" in *The New York Times*, for instance, Jason DeParle delved into some of the minefields involved.⁵ And indeed, there are many pitfalls awaiting the analyst or journalist using international comparisons to draw conclusions about the state of mobility and economic opportunity in the United States. Serious analysts and journalists need to be cautious.

The following are examples of some of the major issues involved in using cross-country data on economic mobility.

Absolute, Relative, or Intergenerational Mobility?

When discussing income mobility and analyzing experiences in different countries, it is easy to confuse measures of progress compared with a monetary starting point and measures of progress relative to other people (who may or may not also be progressing). That is why there are quite different definitions of mobility, implying different things about opportunity.

- Absolute mobility measures actual financial progress over time;
- Relative mobility measures changes for one group compared with a moving average of all groups;
- Intragenerational mobility looks at how much a person's income changes when compared with earlier points in his or her life;⁶ and
- Intergenerational mobility examines the economic condition of adult children relative to that of their parents, which can also be a measurement based on absolute or relative differences.

Each measure tells a different aspect of the story, and the story—and knowing which story we are actually examining in each country—gets even more complicated when international data are involved. It is very easy to end up mixing mobility apples and oranges.

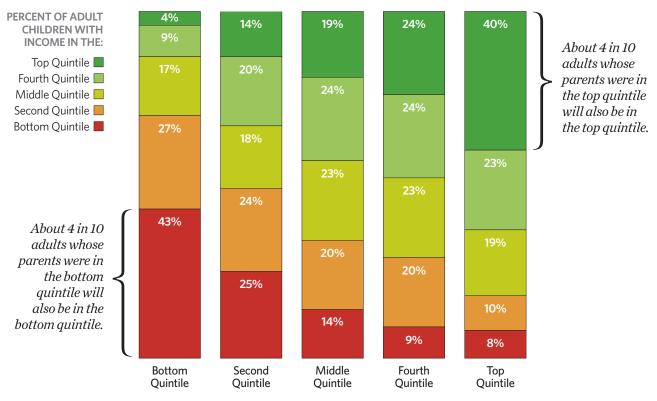
Of all the metrics used in discussions of U.S. mobility, the most frequently cited is relative mobility. The Pew Charitable Trusts' July 2012 report, *Pursuing the American Dream*, illustrates this concept. Chart 1 indicates the pattern that has raised most concern among analysts: the "stickiness" at the upper and lower ends of the income spectrum in the United States. In the bottom quintile, for example, the distribution shows that, relative to their parents' income quintile, 43 percent of those born into the lowest income quintile stay there.⁷

If this were the only factor to be considered, it would indeed lead many people to the conclusion that there is little or no upward economic mobility

- 1. Rick Newman, "The American Dream Is Alive and Well—Just Not in America," *U.S. News & World Report*, September 11, 2012, http://www.usnews.com/news/blogs/rick-newman/2012/09/11/the-american-dream-is-alive-and-welljust-not-in-america.
- 2. Jane White, "Did the American Dream Emigrate to Europe?" *The Huffington Post*, April 6, 2011, http://www.huffingtonpost.com/jane-white/did-the-american-dream-im_b_845680.html.
- 3. David Frum, "The American Dream Moves to Denmark," *The Week*, October 19, 2011, http://theweek.com/bullpen/column/220484/the-american-dream-moves-to-denmark#.
- 4. Scott Winship, "Overstating the Costs of Inequality," *National Affairs*, Issue No. 15 (Spring 2013), p. 1, http://www.brookings.edu/~/media/Research/Files/Articles/2013/03/overstating%20inequality%20costs%20winship/overstating%20inequality%20costs%20winship.pdf.
- 5. Jason DeParle, "Harder for Americans to Rise from Lower Rungs," *The New York Times*, January 4, 2012, http://www.nytimes.com/2012/01/05/us/harder-for-americans-to-rise-from-lower-rungs.html?pagewanted=all&_r=1&.
- 6. Stuart M. Butler, William W. Beach, and Paul L. Winfree, *Pathways to Economic Mobility: Key Indicators*, Pew Charitable Trusts Economic Mobility Project, September 1, 2010, p. 2, http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Economic_Mobility/PEW_EMP_Chartbook_12.pdf.
- 7. Pew Charitable Trusts, Economic Mobility Project, *Pursuing the American Dream: Economic Mobility Across Generations*, July 2012, http://www.pewstates.org/uploadedFiles/PCS_Assets/2012/Pursuing_American_Dream.pdf.

CHART1

Americans Raised at the Top and Bottom Are Likely to Stay There as Adults



PARENTS' FAMILY INCOME QUINTILE

Note: Income is adjusted for family size.

Source: Pew Charitable Trusts Economic Mobility Project, *Pursuing the American Dream: Economic Mobility Across Generations*, July 2012, Figure 3, p. 6, http://www.pewstates.org/uploadedFiles/PCS_Assets/2012/Pursuing_American_Dream.pdf (accessed May 28, 2013).

CPI DP 12 Theritage.org

for about half of the bottom quintile. But what does it mean to be "stuck" in the bottom income quintile? That you are mired in a swamp of poverty from which you cannot emerge? That your quality of life does not improve relative to the life your parents had? To assume so would ignore the existence of strong absolute mobility in the United States. It would obscure the fact that "the median family [in America] today has nearly twice the purchasing power of its counterpart in 1960." As Winship points out, there is certainly an important distinction to be made between

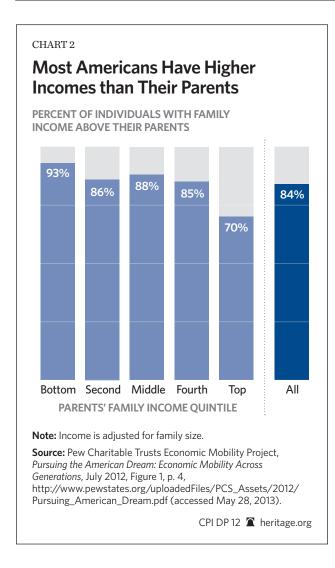
"people's well-being and the rate at which that wellbeing improves."9

To tell a more complete opportunity story, it can also be enlightening to look at absolute mobility in the context of a person's economic condition relative to that of his or her parents, or intergenerational mobility. Absolute mobility in this context, notes the San Francisco Federal Reserve, "can be measured as the percentage of adults whose incomes are higher than that of their parents at the same age." This metric is able to capture part of the idea of the

^{8.} Winship, "Overstating the Costs of Inequality," p. 3.

^{9.} Ibid.

^{10.} Leila Bengali and Mary Daly, "U.S. Economic Mobility: The Dream and the Data," Federal Reserve Bank of San Francisco, *Economic Letter*, March 4, 2013, p. 1, http://www.frbsf.org/publications/economics/letter/2013/el2013-06.pdf.



American Dream in the sense of one's children doing better in life. It indicates the benefits of robust economic growth through general improvements in the future income of children. In other words, this metric shows whether the new generation is better off on an income basis than the one before it—an idea of progress and opportunity that is undoubtedly ingrained in the American consciousness. Remarkably, not only do 84 percent of all Americans exceed their parents' family income, 11 but 93 percent of Americans raised in the bottom quintile do so as well, which gives an important twist on the stickiness concern for those at the bottom of the income spread. 12 In contrast, despite stickiness at the top, only 70 percent of all Americans who were raised in the top quintile were able to surpass their parents' family income. (See Chart 2.)

To be even more specific, and to delve a little deeper, consider the various levels of upward absolute income mobility achieved on a dollar basis. The Pew Foundation's web-based interactive tool for income across generations shows that 91 percent of Americans born into the bottom income quintile exceed their parent's size-adjusted family annual income (adjusted for inflation) by \$1,000 or more. That is also true for 83 percent of all Americans. ¹³ When Pew measured absolute family income growth in excess of their parents by \$10,000 or more, the figure dips to 75 percent for the bottom quintile and 71 percent for all Americans. (See Chart 3.)

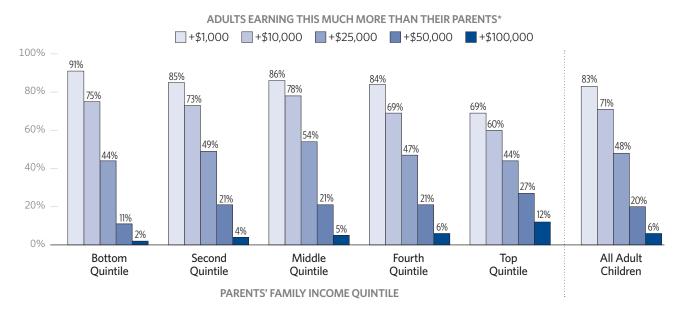
In sum, relative mobility depicts a glass that is half empty, whereas absolute mobility depicts a glass that is half full. But rather than measuring relative or absolute mobility as the foregoing charts do, with their important subtleties about the opportunity story, most cross-country studies use a more abstract measure—the "intergenerational earnings elasticity" (IGE) between fathers and sons—to indicate economic progress. (The same data for daughters do not exist in most countries.) An IGE of 0.6,

- 11. Family income is one of the most common benchmarks against which economic mobility is measured, but "income" itself can mean many things, and there is really no standard definition of "family income" across data sets. Surveys include or exclude a variety of forms of income. According to Pew's methodology statement, family income in this case "includes all taxable income (such as earnings, interest, and dividends) and also cash transfers (such as Social Security and welfare)." The figures in this paragraph are adjusted for inflation and also for family size. See Pew Charitable Trusts, Economic Mobility Project, "Income and Wealth Across Generations: Methodology," February 2013, http://www.pewstates.org/uploadedFiles/PCS_Assets/2013/Pew_mobility_interactive_methodology.pdf.
- 12. The rate of upward absolute mobility is around 67 percent for all Americans when comparing family incomes unadjusted for family size. This unadjusted figure understates the improvement in upward mobility rates across generations because it neglects demographic changes which produced smaller family sizes within the children's generation. Failure to adjust for these changes would imply, for example, that a family of four with an income of \$250k is no better off than a family of six with the same income.
- 13. Pew Charitable Trusts, Economic Mobility Project, "Income and Wealth in America Across Generations," Pew Charitable Trusts, State and Consumer Initiatives Website, February 26, 2013, http://www.pewstates.org/research/data-visualizations/income-and-wealth-in-america-across-generations-85899453568.

CHART 3

Most Adults Have Family Incomes Higher than Their Parents

About four in ten adults have family incomes that are at least \$25,000 more than their parents, regardless of their family's income growing up.



^{*} Figures are adjusted for family size.

Source: Pew Charitable Trusts, "Income and Wealth in America Across Generations," February 26, 2013, http://www.pewstates.org/research/data-visualizations/income-and-wealth-in-america-across-generations-85899453568 (accessed May 29, 2013).

CPI DP 12 heritage.org

explains a leading analyst of mobility data, means roughly¹⁴ that "if one father makes 100% more than another then the son of the high income father will, as an adult, earn 60% more than the son of the relatively lower income father."¹⁵

Though the elasticity measure does have short-comings, the higher the IGE, the higher the implied intergenerational passage of economic advantage (measured by the ability to generate income, not the advantage of inheriting wealth) is between father and son in the sense that the son's earnings will be more closely related to the father's. A closeness

between a father's and son's earnings is interpreted by analysts as low mobility because the father's success or failure tends to replicated by the son.

As noted by Julia Isaacs, currently a senior fellow at the Urban Institute, because most of the cross-country studies use this father–son IGE measure to illustrate relative mobility, they "ignore the question of cross-country differences in *absolute* mobility, that is, the likelihood that individuals in a given country will have higher standards of living than their parents due to national rates of economic growth." Unfortunately, comparable longitudinal

^{14.} For example, if one father makes 10 percent more than the other and the IGE is 0.6, the one son will make 5.9 percent more than the other, which is close to 10*.6 = 6 percent. However, for larger increases, the distinction matters more. For example, if one father makes 100 percent more than the other and the IGE is 0.6, the one son will make 52 percent more, not 100*.6 = 60 percent.

^{15.} Miles Corak, "Economic Mobility Across the Generations in the United States: Comparisons, Causes, and Consequences," testimony before the Committee on Finance, U.S. Senate, July 6, 2012, http://www.finance.senate.gov/imo/media/doc/Corak%20Testimony.pdf.

^{16.} Julia B. Isaacs, "International Comparisons of Economic Mobility," Pew Charitable Trusts, Economic Mobility Project, p. 2, http://www.brookings.edu/~/media/research/files/reports/2008/2/economic%20mobility%20sawhill/02_economic_mobility_sawhill_ch3.pdf (emphasis in original).

data needed to compute absolute mobility are not widely available for most countries.

Thus, putting aside the inherent issues involved in drawing conclusions from incomplete data, when looked at through one mobility definition lens, the available data suggest that America may not be as "relatively mobile" as some European nations are, but looked at through another lens, the United States boasts a great degree of absolute economic mobility and may indeed be the land of opportunity. However, it is still very difficult to draw even these conclusions definitively without more and better data on intergenerational and intragenerational mobility.

In any case, when examining mobility between income quintiles over time in different countries, it is important to consider two questions:

- Are we mostly concerned with how much better off children are when compared with their parents?
- Or are we mostly concerned with how much better off children are relative to the progress made by the children of other households?

To frame this issue in a larger context of opportunity and mobility, it is thus always important to distinguish between "upward absolute mobility" and "relative mobility." The key distinction is that upward absolute mobility is possible with no downward counterpart, whereas relative mobility is never upward or downward unless examining a strict subset of the population and requiring that someone else be considered as going relatively "up" or "down" even if their circumstances stay the same.

That bears repeating. It means that an entire country cannot experience upward relative mobility. This is critical because American policymakers over the decades have generally sought to create the economic conditions in which upward mobility is available to everyone rather than focusing on relative positions. Policymakers in some other countries, by contrast, focus more on relative positions than they do on general income growth.

How Quintile Ranges Affect the "Rags to Riches" Story

In a Brookings Institution paper, "International Comparisons of Economic Mobility," Julia Isaacs summarizes longitudinal earnings data contrasting "rags to riches" mobility in Denmark and the United States. The data, for 2004, examine a sample of men whose fathers were in the bottom fifth of the earnings distribution. In Denmark, 14 percent of such men successfully made the climb from bottom to top, whereas only 8 percent of Americans did so. Expanding the scope to encompass the chance to reach the top two fifths yields 33 percent for Danish sons starting in the bottom fifth versus 18 percent for American sons starting in the bottom fifth.

What exactly does this mean? That the opportunity to rise is less available in America? That is not necessarily the case from the data, because it turns out that one has to acquire a lot more riches in the United States to be at the top of the pile. As Isaacs correctly notes, "Americans who climb from bottom to top in one generation are climbing further in absolute dollars than their counterparts in Europe." ²⁰

Exploring this point further, journalist Reihan Salam demonstrated the actual income growth that would be required to replicate the rags-to-riches scenario. Using data from four-person households, Salam found that:

In 2004, Danish households at the 10th percentile earned \$25,500, considerably more than the \$19,968 income of American households at the 10th percentile. Danish households at the 50th percentile earned around \$45,340 against around \$53,344 in the U.S. And Danish

^{17.} The data were taken from Markus Jäntti, Knut Røed, Robin Naylor, Anders Björklund, Bernt Bratsberg, Oddbjørn Raaum, Eva Østerbacka, and Tor Eriksson, "American Exceptionalism in a New Light: A Comparison of Intergenerational Earnings Mobility in the Nordic Countries, the United Kingdom and the United States," Institute for the Study of Labor *Discussion Paper* No. 1938, January 2006, http://ftp.iza.org/dp1938. pdf. It is worth noting that for American children, Jäntti et al.'s definition of the "bottom fifth" is based on family income, while for children in the other countries, it is based on a father's earnings.

^{18.} Isaacs, "International Comparisons of Economic Mobility," p. 4.

Jäntti et al. "American Exceptionalism in a New Light: A Comparison of Intergenerational Earnings Mobility in the Nordic Countries, the United Kingdom and the United States," Table 12.

^{20.} Isaacs, "International Comparisons of Economic Mobility," p. 4.

JULY 29, 2013

households at the 90th percentile earned around \$70,838 against just under \$113,474 in the U.S. Making it from \$25,500 to \$70,838 is, for obvious reasons, easier than making it from \$19,968 to \$113,474.²¹

These numbers track closely with similar decile range statistics computed by the Organisation for Economic Co-operation and Development (OECD) for 2005.22 When measuring the range in average purchasing power parity (PPP) between the top and bottom deciles, the OECD study computed a range of \$87,257 in the U.S.23 as compared to \$37,457 in Denmark.²⁴ In fact, OECD scholars Michael Förster and Marco d'Ercole confirm that Denmark has the narrowest income distribution of all OECD countries.²⁵ Therefore, when viewed through this lens, it is not entirely surprising that a "rags to riches" disparity would exist between two countries with such disparate income distributions. For this reason, a comparison between Norway and Canada (ranges of \$61,402 and \$62,705, respectively) might be more enlightening from a mobility standpoint.

Thus, while "rags to riches" in Denmark required income growth of about \$40,000, achieving the same quintile mobility result in the U.S. would have required income growth of about \$90,000. Due to the varying widths of the income quintiles, one cannot deduce, based on the 14 percent to 8 percent comparison alone, whether one country yields more upward mobility as we might readily understand the term. Moreover, it is especially important to note that any attempt to compress the distance between quintiles artificially does not create any more economic opportunity or upward mobility, much as

redistributing wealth does not create any more of it.

In short, when one sees percentages of mobility on a quintile basis, it is important to examine the absolute dollar amount that the quintile change requires, because relative mobility statistics sometimes fail to tell the whole story.

Are Tax and Other Transfer Policies Included in Income Comparisons?

The treatment and definition of "income" is vital to an accurate portrayal of economic mobility. However, assessing income can be tricky because of differences in the way countries measure income and the implications of tax and transfer policies. Depending on the size of transfer payments and the progressivity of the tax code, government policies can obscure the underlying (or what one might call the "natural") mobility pattern that otherwise would have existed.

For example, if a society values greater equality of outcomes, it may choose to redistribute wealth equally among the population, but should we compare countries before or after such redistribution? Using pre-distribution data tells more about the nature of the country's economy and civil society as an engine of mobility, but using post-distribution data tells more about what the government does to tweak underlying mobility and the effect that it has on people's pocketbooks, so it gives a better sense of how a person or family might actually progress financially in that country.

Depending on the measure of income and mobility used, a country with heavy redistribution could appear to demonstrate "perfect" economic mobility according to certain definitions, but what does that

- 21. Reihan Salam, "In a Fixed Amount of Time, It Is Easier to Run a 5K Than a 10K," National Review Online, November 29, 2011, http://www.nationalreview.com/content/fixed-amount-time-it-easier-run-5k-10k.
- 22. Michael Förster and Marco d'Ercole, "The OECD Approach to Measuring Income Distribution and Poverty: Strengths, Limits and Statistical Issues," Organisation for Economic Co-operation and Development, 2008, Figure 2, p. 13, http://umdcipe.org/conferences/oecdumd/conf_papers/Papers/The%2520OECD%2520Approach%2520to%2520Measuring%2520Income%2520Distribution%2520and%2520Poverty. pdf.
- 23. These statistics may even understate the range in the U.S. income distribution due to the inability of CPS data to capture the highest incomes accurately (thus understating the average income of the top decile).
- 24. For the complete OECD Excel spreadsheet, see Figure 1.6, "Income Levels Across the Distribution, Mid-2000s," in Organisation for Economic Co-operation and Development, *Growing Unequal? Income Distribution and Poverty in OECD Countries*, October 2008, http://dx.doi.org/10.1787/420721018310.
- 25. Förster and d'Ercole, "The OECD Approach to Measuring Income Distribution and Poverty: Strengths, Limits and Statistical Issues," p. 11. The authors note that "significant cross-country differences in inequality are found regardless of the measure used, with the ranking of countries little affected by which one is used:" mean log deviation, the squared coefficient of variation, the ratio between the upper limit of the ninth income decile and the upper limit of the first decile (P90/P10), P50/P10, and S80/S20.

picture really say about the opportunities that people have to rise based on their merits? By that measure, in the egalitarian and "perfectly mobile" society, there would be no benefits conferred to effort, educational attainment, or any other human-capital contribution to mobility. Moreover, perceived mobility would be the result of government tax and transfer policies as opposed to the nature of the country's economy.

Using post-distribution data tells more about what the government does to tweak underlying mobility and the effect that it has on people's pocketbooks, so it gives a better sense of how a person or family might actually progress financially in that country.

Therefore, it is important to examine whether comparisons are pre- or post-government action not only to draw a valid comparison, but also to be clear about whether one considers government action to be an inherent part of mobility and opportunity or a "correction" to the country's "real" mobility picture. And that mobility picture is made more complicated when we try to measure the value of transfers.

To help avoid misleading differences, it is important to note the variability of income measures that are frequently cited. For example, some studies use market income, while others use disposable income. Some studies adjust for household size and economies of scale, while others do not. And some studies include in-kind benefits with transfer payments, while others do not.

To illustrate the potential impact of these differences in measurement, consider the breakdown in Richard Burkhauser, Jeff Larrimore, and Kosali Simon's analysis of income growth spanning the years 1979–2007. Burkhauser et al. examine income changes by quintile by contrasting "household, size-adjusted, after-tax, after-transfer income, plus health insurance" with "before-tax, before-transfer income of tax units" in the U.S. ²⁶ Over the span of three decades, according to the most basic measure (tax unit, pre-tax, pre-transfer), the bottom quintile showed negative income growth of 33 percent—a sharp contrast to the positive income growth of 32.7 percent for the top quintile.

However, that yawning gap closes significantly when the "tax unit" changes to represent a household. The shift to households alone has a large effect "because the number of tax units per household has been rising over that 30-year period. There are a lot more people living together and sharing everything except a marriage certificate." Also, a "post-transfer" measure adds cash transfers like welfare and Social Security. With this small change, a vast-ly different picture emerges: The bottom quintile's income experienced a 42.5 point upswing for positive growth of 9.5 percent. In contrast, the top quintile's income increased only 1.9 percent to a total of 34.6 percent.

Next, the authors size-adjust for the income of persons because the previous treatment did not consider the fact that "a household with a single individual making \$50,000 per year will have access to more resources and can maintain a higher standard of living than a person in a household with the same \$50,000 of income but more people." This adjustment yields an uptick of only 0.4 percent for the bottom quintile yet boosts the top quintile's income by 7.4 percent.

To be even more precise, the new measure ("household, size-adjusted, post-tax, post-transfer") accounts for tax liabilities and tax credits like the earned income tax credit. Consequently, the bottom and top quintiles show additional income growth of 5.1 percent and 7.4 percent, respectively.

The final measure ("household, size-adjusted, post-tax, post-transfer, plus health insurance")

Richard V. Burkhauser, Jeff Larrimore, and Kosali I. Simon, "A 'Second Opinion' on the Economic Health of the American Middle Class,"
 National Tax Journal, Vol. 65, No. 1 (March 2012), pp. 7–32, http://ntj.tax.org/wwtax/ntjrec.nsf/009a9a91c225e83d852567ed006212d8/3021 2f14664082b1852579b5006904e1/\$FILE/A01_Larrimore.pdf.

^{27.} James Pethokoukis, "Pikkety and Saez vs. Burkhauser and Cornell: Who's Right on Income Inequality and Stagnation?" American Enterprise Institute, AEIdeas blog, May 10, 2013, http://www.aei-ideas.org/2012/04/piketty-and-saez-vs-burkhauser-and-cornell-whos-right-on-income-inequality-and-stagnation/.

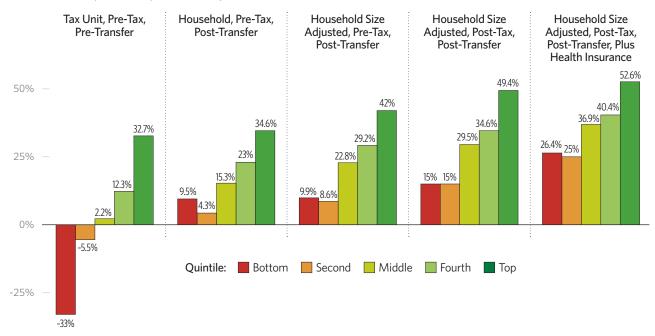
^{28.} Burkhauser et al., "A 'Second Opinion' on the Economic Health of the American Middle Class," p. 14.

CHART 4

Properly Measured, Income Has Grown for All Income Groups

A rudimentary examination of income growth from 1979 to 2007 shows a 33 percent decline for the bottom quintile. However, after adjusting for household size, taxes, transfers, and health insurance, income for the bottom quintile increased by 26.4 percent.

INCOME GROWTH, 1979-2007, BY INCOME QUINTILE



Source: Richard V. Burkhauser, Jeff Larrimore, and Kosali I. Simon, "A 'Second Opinion' on the Economic Health of the American Middle Class," *National Tax Journal*, March 2012, Table 4, Panel D, p. 23, http://ntj.tax.org/wwtax/ntjrec.nsf/009a9a91c225e83d852567ed006212d8/30212f14664082b1852579b5006904e1/\$FILE/A01_Larrimore.pdf (accessed June 3, 2013).

CPI DP 12 heritage.org

accounts for employer- and government-provided non-cash compensation such as premium contributions, Medicare, and Medicaid. This is very important because such things as contributions in the form of employer-provided benefits can be a very large factor in the total compensation of a household.

In the United States, for instance, employer-sponsored health care insurance and other fringe benefits have become an increasing share of total employee compensation (but are ignored in cash earnings measures). Specifically, non-wage and non-salary accruals have grown as a share of compensation in the U.S. from 10.63 percent in 1970 to 19.69 percent in 2011.²⁹ As a proportion of total compensation, moreover, family health insurance that is worth, say, \$12,000 per year has a much bigger relative impact on the more broadly understood income of a lower-paid worker than the same coverage has

for a higher-paid worker, so the cash-only comparison of the relative condition of the two workers overstates the difference. Including the *ex-ante* value of employer- and government-provided health insurance causes the bottom quintile's income to jump 11.4 percent to a final total of 26.4 percent—a far cry from the initial measure of -33 percent.

At the end of all of these adjustments, the minimum income growth experienced by any quintile was 25 percent. These income adjustments are shown in stages progressing from left to right—start to finish—in Chart 4. Over the period from 1979–2007, the rudimentary tax unit pre-tax, pre-transfer measure showed a 33 percent decline in income for the bottom quintile in contrast to a 32.7 percent increase for the top quintile. However, after adjusting for the various tax and transfer treatments, income growth improved dramatically: a 26.4 percent increase for

the bottom quintile and 52.6 percent for the top quintile.³⁰

Although this is just one example, it is clear that there are intricate factors to consider even when examining relative and absolute mobility in the U.S. alone. Without understanding the role that size adjustments as well as tax and transfer policy played in terms of measuring income inequality, one might have assumed something very different about the U.S. economy.³¹ Given the reality that developed nations engage in a wide array of tax and transfer policies, making meaningful comparisons between countries becomes very difficult. It is therefore important to understand how these policies distort the distribution of income vis-à-vis reported measures of income and to be cautious about international comparisons.

For instance, using 2010 OECD data to compare Germany and the United States shows that pre-tax, pre-transfer income inequality, as measured by the Gini coefficient, is virtually equal between the two at 0.492 and 0.499, respectively. However, when taxes and transfers are factored in, the Gini coefficients drop by 42 percent in Germany but only 24 percent in the U.S. to 0.286 and 0.38, respectively. Regardless of what is causing the pre-tax, pre-transfer inequality, it is evident that the post-tax and post-transfer picture illustrates something entirely different concerning the distribution of income. This example underscores the challenges for cross-country mobility comparisons and the considerations that should not be overlooked.

To see how these income measurement issues can make international comparisons even more problematic, consider the array of transfer payments abroad.

Transfer Payments. When considering redistribution from an international perspective, there are two primary concerns regarding transfer payments: size and valuation. The OECD Social Expenditure Database provides comparable international data on "the main social policy areas: Old age, Survivors, Incapacity-related benefits, Health, Family, Active labour market programmes, Unemployment, Housing, and others."33 According to 2009 OECD data, public social expenditures account for 19.2 percent of gross domestic product (GDP) in the United States, which stands in contrast to 24.1 percent in the United Kingdom (U.K.), 27.8 percent in Italy, 30.2 percent in Denmark, and 32.1 percent in France.34

Given the sheer size and range of social transfers throughout developed nations, comparisons of mobility based on income are inherently complex and also problematic in the context of the "natural" economy or the postgovernment situation.

Given the sheer size and range of social transfers throughout developed nations, comparisons of mobility based on income are inherently complex and also problematic in the context of the "natural" economy or the post-government situation. This harkens back to the previous discussion of whether one considers government action to be an inherent part of mobility and opportunity or a "correction" to the country's "real" mobility picture.

- 29. U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts Tables, 1970 to 2011.
- 30. Burkhauser et al., "A 'Second Opinion' on the Economic Health of the American Middle Class," Table 4: Panel D, p. 23.
- 31. A recent paper by Philip Armour, Richard Burkhauser, and Jeff Larrimore adds another layer of complexity to the income measurement issue. The authors build on their prior analysis to include various treatments of capital gains that are more in line with a comprehensive Haig-Simons income approach. See Philip Armour, Richard Burkhauser, and Jeff Larrimore, "Levels and Trends in United States Income and Its Distribution: A Crosswalk from Market Income Towards a Comprehensive Haig-Simons Income Approach," National Bureau of Economic Research Working Paper No. 19110, June 2013, http://www.nber.org/papers/w19110.
- 32. Organisation for Economic Co-operation and Development, Stat Extracts, Income Distribution—Inequality—Country Tables, http://stats.oecd.org/Index.aspx?QueryId=26068.
- 33. Organisation for Economic Co-operation and Development, Social Expenditure Database, http://www.oecd.org/social/soc/socialexpendituredatabasesocx.htm.
- 34. Organisation for Economic Co-operation and Development, Stat Extracts, Social Expenditure Database, Aggregated Data, http://stats.oecd.org/Index.aspx?datasetcode=SOCX_AGG.

For example, historically and in comparison with other OECD countries, the United States spends a relatively low portion of its GDP on transfer payments and is deemed by many observers to have low mobility when using the IGE metric (which reflects the degree to which a child's income tracks more closely with the parents' income). Meanwhile, Australia has high mobility as measured by IGE but low social transfer spending. Does that imply that U.S. transfer payments are a "correction" for low mobility while Australia's might be a contributor to its mobility?

Conversely, France and Denmark spend more on social transfers than other OECD nations in the sample, yet according to the IGE measure, Denmark is considered highly mobile by some definitions and France is not. Does this imply that Denmark's transfer spending is somehow a feature of its natural mobility pattern while France's transfers are a correction for those mobility ills?

Herein lies a major problem with international comparisons of economic mobility. The data show that transfer payments have a flattening effect on the income distribution and also that including or not including them can affect the inferences drawn from international comparisons of income mobility, especially as the sample time horizons are expanded to encompass the increasing omnipresence of transfers in developed countries.

In-Kind Benefits. While cash and tax transfers can be measured and compared more easily across nations, the proper inclusion of in-kind benefits proves to be more elusive. The previous section touched briefly on the *ex-ante* value of employer and government health insurance contributions, but this measure does not encompass the full breadth of in-kind benefits that would be important in assessing an individual's full economic well-being in a range of countries.

As noted by the OECD study *Growing Unequal? Income Distribution and Poverty in OECD Countries*:

[S]hifting from household income towards a broader concept of economic resources raises a range of questions: some are conceptual, and mainly relate to the valuation of these services and to their distribution across individual beneficiaries; others are methodological—and probably less controversial—but can crucially affect numerical results.³⁵

For one thing, countries differ greatly in the degree to which they provide in-kind benefits, such as government-provided health care, education, and housing, whereas in other countries, these are paid for entirely or in part by citizens. For example, ignoring the nuances of computation for the moment, OECD data from 2000 show that public expenditures on in-kind services as a percentage of disposable income range from 15 percent in the U.S., to 24 percent in France, to over 46 percent in Denmark. This is an important consideration when mobility is measured on a cash earnings basis, because fringe benefits often "depress" cash earnings and so distort the pattern over time within a country.

Beyond the expenditure side of the equation, the authors of the OECD report also note that "most studies on the distributive impacts of government services value these at their production costs, thus neglecting differences across countries in the efficiency of service provision." While efficiency implies success in targeting benefits to the desired constituencies, it does not necessarily indicate the outcomes or true economic results. Moreover, the quality of an in-kind benefit costing the same amount can vary widely, with quite different impressions of being better off between different recipients. As Representative Paul Ryan (R–WI) argues:

We spend too much of our time in our intellectual effort measuring compassion for those in need by measuring inputs. How much money are we spending? How much money are we increasing spending? How many programs are we creating, but we're not measuring outcomes. Are these programs working? Are people getting out of poverty? And we need to focus on that, because if we simply measure inputs, Medicaid is phenomenally successful. A 50% increase in the past ten years and a forthcoming 125% increase in the

^{35.} Organisation for Economic Co-operation and Development, Growing Unequal? Income Distribution and Poverty in OECD Countries, p. 225.

^{36.} Ibid., p 233.

^{37.} Ibid., p. 225

next ten years...but surveys are telling us [that] doctors aren't even taking Medicaid patients.³⁸

A recent study on Medicaid in the *New England Journal of Medicine* raises similar questions about whether spending on health services can always be assumed to add to the well-being of beneficiaries and thus contributing to mobility. The results of the study were mixed:

This randomized, controlled study showed that Medicaid coverage generated no significant improvements in measured physical health outcomes in the first 2 years, but it did increase use of health care services, raise rates of diabetes detection and management, lower rates of depression, and reduce financial strain.³⁹

In light of these challenges, placing a monetary value on an in-kind benefit for the purpose of comparison is often technically difficult; for it to be done accurately, the quality of the benefit would have to be considered and somehow valued. For instance, how does one measure the insurance value of Medicaid coverage or compare the value of health services in the U.K., where waiting lists are common, with Medicare in the U.S. where waiting is less common? Even if one were to receive the same dollar contribution for insurance coverage, would it be comparable if one had to wait nine months for a doctor's appointment in the U.K. but not in the U.S.?

Thus, setting aside the complexities of measuring cash income properly between countries, the difficulty of assigning a monetary value to in-kind benefits that vary so much in quality and efficiency adds to the problem of comparing economic mobility between countries, especially for countries in which in-kind benefits constitute a high proportion of income.

Most cross-national comparisons of mobility avoid the challenges associated with including

the value of transfer and in-kind income by relying instead on more traditional earnings data. That certainly is simpler. As noted in one presentation at a recent OECD meeting on income distribution data, while including in-kind social transfers makes sense, they are typically excluded for practical measurement reasons.⁴⁰

The difficulty of assigning a monetary value to in-kind benefits that vary so much in quality and efficiency adds to the problem of comparing economic mobility between countries, especially for countries in which in-kind benefits constitute a high proportion of income.

But just because it is simpler and traditional earnings data are more easily available and comparable does not mean that excluding in-kind transfers produces a sufficiently meaningful picture, especially if one is trying to draw important conclusions about the nature of different societies or develop policies to widen opportunity and reduce presumed inequalities. To be sure, if transfers and benefits were similar in different countries, then more traditional earning comparisons could be adequate as the basis for comparisons, but the differences between countries are sufficient to cause analysts and journalists at least to draw attention to the issue and for future studies to attempt to incorporate these forms of income.

The Accuracy of Economic Mobility May Be Affected by Demography and Country Size

In addition to all of the traditional variables that one would associate with economic mobility, demography can play a significant role in driving broad changes in the income distribution and household

^{38.} News release, "Paul Ryan: Poverty Programs Should Be Measured By Outcomes," May 7, 2012, http://paulryan.house.gov/news/documentsingle.aspx?DocumentID=294383#.UYFAF64hrTd.

^{39.} Katherine Baicker, Ph.D., Sarah L. Taubman, Sc.D., Heidi L. Allen, Ph.D., Mira Bernstein, Ph.D., Jonathan H. Gruber, Ph.D., Joseph P. Newhouse, Ph.D., Eric C. Schneider, M.D., Bill J. Wright, Ph.D., Alan M. Zaslavsky, Ph.D., and Amy N. Finkelstein, Ph.D., "The Oregon Experiment—Effects of Medicaid on Clinical Outcomes," New England Journal of Medicine, Vol. 368, No. 18 (May 2, 2013), pp. 1713–1722, http://www.nejm.org/doi/pdf/10.1056/NEJMsa1212321.

^{40.} Michael Förster, "Broadening the Income Concept: Social Transfers in Kind," Meeting of Providers of OECD Income Distribution Data, February 21–22, 2013, http://www.oecd.org/els/soc/5.1c%20STIKMF.pdf.

living conditions, which raises obstacles for comparisons of countries. For instance, Förster and d'Ercole note that the average household size declined in all OECD countries on average from about 2.8 persons to about 2.6 persons over a span of 20 years. The effect of the broad shift was disproportionately large in such countries as the U.K., Italy, and Japan. If left unaccounted for, the statistics would imply that "economies of scale in consumption were lost and that a higher money income is needed to assure the same level of household well-being."

The authors observe that changes in demography can also affect income inequality over time. For example:

Comparing the actual change in income distribution to what would have occurred had the population structure (by both age of individuals and household type) remained "frozen" at the level prevailing some ten years ago suggests that these structural factors have increased income inequality in a majority of [OECD] countries.... More important than population aging *per se* have been changes in living arrangements, which have implied that more people are living alone and in lone-parent households.⁴²

These changes, in addition to "assortative mating" tendencies, explain the authors, had "a sizeable influence on increasing household income inequality in some countries," notably the United States. Failure to consider these long-term trends, especially the varying degrees with which they affect certain countries and not others, should make us wonder how much impact such trends have on comparisons of long-term economic mobility.

Another and perhaps surprising factor involved in international comparisons of economic mobility data appears to be country size and the degree of demographic heterogeneity. It turns out that the size and composition of the countries involved in the samples collected, as well as ranges of economic and institutional complexity by country size, appear to influence cross-country comparisons.

In this regard, comparisons between very small and homogeneous countries, such as Denmark (population 5.6 million, or about the size of the Washington, D.C., metropolitan area) and the United States (with a heterogeneous population of 311 million), may generate results that are not as useful in drawing conclusions about the mobility conditions in each country. Speculatively, comparing Western Europe (population ~397.5 million) with the United States might be more valid than comparing the U.S. with Denmark-or, for that matter, comparing Denmark with the European Union. For instance, economist James K. Galbraith asserts that Europe, when viewed as an integrated marketplace, in fact has higher wage inequality than the U.S.44

The size and composition of the countries involved in the samples collected, as well as ranges of economic and institutional complexity by country size, appear to influence cross-country comparisons.

The country size and demographic heterogeneity issue is likely a relevant factor in attempts to draw conclusions from what has been dubbed the "Great Gatsby Curve" by outgoing Council of Economic Advisers Chairman Alan Krueger, depicted graphically in Chart 5.⁴⁵ The curve attempts to indicate a positive relationship between intergenerational earnings elasticity (between fathers and sons) and a measure of income inequality by using the 1985 Gini

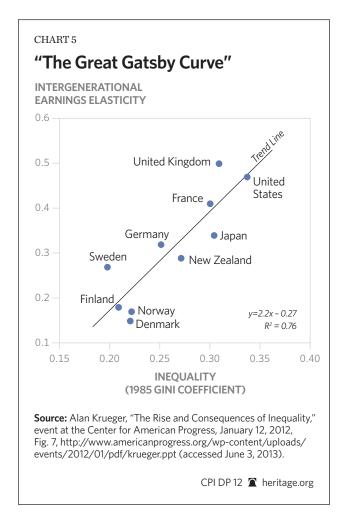
^{41.} Förster and d'Ercole, "The OECD Approach to Measuring Income Distribution and Poverty: Strengths, Limits and Statistical Issues," p. 16.

^{42.} Ibid., p. 17.

^{43.} Ibid.

^{44.} James K. Galbraith, "Jamie Galbraith on Inequality and Instability," Real News Network, April 21, 2012, http://www.nakedcapitalism.com/2012/04/jamie-galbraith-on-inequality-and-instability.html.

^{45.} Alan B. Krueger, "The Rise and Consequences of Inequality in the United States," Remarks as Prepared for Delivery, January 12, 2012, http://www.whitehouse.gov/sites/default/files/krueger_cap_speech_final_remarks.pdf.



coefficient.⁴⁶ As explained by James Manzi of the Manhattan Institute:

The X dimension on [Krueger's] chart is the "Gini Coefficient" in 1985. The Gini Coefficient is a measurement of the degree to which the income distribution for a given group of people deviates from perfect equality. The higher the number, the more unequal the society (as defined by this specific metric). The Y dimension on this chart is the "Intergenerational Earnings Elasticity" (IGE) today. IGE is a measurement of the degree

to which person X will tend to have a very similar position in the relative income distribution of a given population group as his or her parents had in the prior generation of the same population group. The higher the number, the less mobility there is in the society (as defined by this specific metric).⁴⁷

When econometricians examine a correlation like this, one of the first things they look for is the presence of omitted variable bias: In layman's terms, are there any other factors related to the IGE that are not being considered which could cause the relation between the Gini coefficient and the IGE to be overstated? The answer is yes. Manzi points out that:

[T]he most obvious example is just the size of the countries. It's at least plausible that much bigger countries contain more variety... In fact, if you do something as simple as recreate the Great Gatsby Curve, but use the population of each country as the X-axis, you get a very strong statistical relationship (log-linear R² = .64). Big countries have higher IGE. Call it the Moby Dick Curve. 48

What does Manzi mean by this? The Great Gatsby Curve has an R² of .76, which in layman's terms means that 76 percent of the deviation of all dots (countries) from the line of best fit can be explained by the model. On the face of it, that seems to be a convincing demonstration of differences in mobility. However, Manzi's Moby Dick Curve was able to replicate 64 percent of the same total deviation simply by substituting population size for the Gini coefficient (the measure of inequality). In other words, a simple correlation would suggest, albeit incorrectly, that a country's population size affects economic mobility. That seems highly unlikely, and yet it would be a good substitute variable to recreate the Great Gatsby Curve.

As noted previously, one must be very careful not to mistake correlation for causation. There might

^{46. &}quot;The coefficient varies between 0, which reflects complete equality and 1, which indicates complete inequality (one person has all the income or consumption, all others have none)." For a graphical representation and further explanation, see World Bank, "Measuring Inequality," Poverty Reduction & Equity Website, http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTPA/0,,contentMDK:20238 991-menuPK:492138-pagePK:148956-piPK:216618-theSitePK:430367,00.html.

^{47.} Jim Manzi, "The Great Gatsby, Moby Dick, and Omitted Variable Bias," National Review Online, February 7, 2012, http://www.nationalreview.com/content/great-gatsby-moby-dick-and-omitted-variable-bias.

^{48.} Ibid.

be no causation—just a coincidence. Or there might conceivably be some factors such as migration or demographic homogeneity that have a disproportionate influence on the data from certain smaller countries. But if the size of a country seems to explain differences in inequality, one must be cautious about the nature of the data one is using and what those data are really telling us about economic and social patterns.

The debate concerning the merits of the Great Gatsby Curve has evolved over time, and now mobility scholar Miles Corak is especially careful to note that:

[T]he demographic diversity between the high-income countries, and their underlying values, imply that it may well be impossible, and indeed not even desirable, to change the degree of mobility in countries like the United Kingdom or the United States into the rates observed in Denmark. Rather, the cross-country comparison of intergenerational mobility of the sort offered by the Great Gatsby Curve invites us to reflect on what makes one country different than another so we may clarify the underlying drivers and determine whether these are forces that can change and whether we want them to change.⁴⁹

In this regard, it is important to understand not only the macro-mechanisms that affect income and mobility, but also how cross-country variations in intergenerational earnings ability are shaped by cultural differences.

Qualities of Mobility in One Country May Not Be Deemed So in Another

Broadly speaking, societies can be defined by the way they permit economic mobility. For instance, there are meritocracies, "fortune cookie" societies, and class-stratified societies. Meritocracies reward skill and individual effort. Career advancement in fortune cookie societies depends more on

luck and less on, say, positive or negative traits and skills passed on from parents to their children. Class-stratified societies reward individuals based on their bloodline or adherence to cultural norms and places a ceiling on the advancement of some groups.

These societal constructs can manifest themselves in tangible ways, such as labor institutions, or in intangible ways such as class, race-based, and cultural norms in hiring practices. Additionally, these effects can be both calculable (union wage distortions) or incalculable (those who did not get promoted or hired based on race or because of a "glass ceiling").

Society and Opportunity. Although economic mobility is typically related to levels of social, human, and financial capital, there are often unexplained residuals that vary dramatically across countries. The presumption with cross-country comparisons is typically that a society with higher measured mobility is somehow more open to enterprising, determined people, but that is not necessarily the case. It could be that other factors altogether favor or disfavor upward mobility. Historian Victor Davis Hanson illustrates this phenomenon:

If history is a guide, the most savvy Chinese citizen of Japanese descent would not make it as a high official in Beijing's Communist Party—no more so than a brilliant Japanese citizen of Chinese descent would run Toyota or Honda. A white Croatian of enormous talent could not end up as president of Sudan... It would be virtually impossible for the most talented Christian or Jew to be allowed to head contemporary Egypt, or for a brilliant four-star Buddhist general to run the Iranian military. For the immediate future, don't expect a female business-school valedictorian to manage Saudi Arabia's national oil company.

Note that in all these cases, such exclusions derive from criteria other than innate talent, character,

^{49.} Miles Corak, "Income Inequality, Equality of Opportunity, and Intergenerational Mobility," forthcoming, *Journal of Economic Perspectives*, Summer 2013, p. 22, http://milescorak.files.wordpress.com/2013/07/income-inequality-equality-of-opportunity-and-intergenerational-mobility.pdf.

^{50.} Julia B. Isaacs, Isabel V. Sawhill, and Ron Haskins, *Getting Ahead or Losing Ground: Economic Mobility in America*, Pew Charitable Trusts, Economic Mobility Project, 2008, p. 2, http://www.brookings.edu/~/media/research/files/reports/2008/2/economic%20mobility%20 sawhill/02_economic_mobility_sawhill.pdf.

JULY 29, 2013

and industriousness, and can result in the lesser qualified being considered the only qualified.⁵¹

While these may be extreme juxtapositions, they scratch the surface of what mobility can look like in an international context. For example, an entrepreneurial individual with a certain set of social, human, and financial capital may experience great upward mobility in a meritocracy, slightly less in other countries, or total stagnation in another due to differences in the traits that each society values. Likewise, if one is born into the cultural elite of a class-stratified society, there is not much incentive to pack up and leave in search of better opportunities.

In the context of differential societies, renowned economist Gary Becker effectively explains the complexity of attributing intergenerational mobility to the proper causal factors. For instance, due to inherited abilities:

a "meritocracy" would have a strong correlation between the earnings of parents and children. In other words, intergenerational mobility would be relatively low in such a merit-based economy. To be sure, intergeneration mobility would also be low if family position were automatically passed on from parents to children, independently of the abilities of children (or parents).... By contrast, if earnings were basically randomly determined in each generation without regard to merit or any other considerations, there would be complete intergeneration mobility even though merit had no role in determining earnings.⁵²

In short, it is important not to accept intergenerational mobility estimates at face value without first considering how that society rewards the various forms of social, human, and financial capital.

Conclusion

International comparisons can be very helpful both in understanding patterns in one's own country and in assessing social conditions and policy impacts, but it is also easy to draw erroneous or at least questionable conclusions from cross-country comparisons. This can be the case when looking at economic mobility and opportunity. Differences in data collection methods, the inclusion or exclusion of certain forms of income and benefits, and cultural differences are just a few of the reasons to be cautious.

-Donald Schneider is a Research Assistant in the Center for Policy Innovation at The Heritage Foundation. The author is especially grateful to Stuart Butler, PhD, Scott Winship, PhD, and Salim Furth, PhD, for their valuable edits, comments, and suggestions.

^{51.} Victor Davis Hanson, "America's Big Fat Advantage," National Review Online, March 21, 2013, http://www.nationalreview.com/articles/343499/america-s-big-fat-advantage-victor-davis-hanson.

^{52.} Gary Becker, "Meritocracies and Intergeneration Mobility," The Becker-Posner Blog, January 1, 2013, http://www.becker-posner-blog.com/2013/01/meritocracies-and-intergeneration-mobility-becker.html.