

The Shocking Truth About Inequality

By Matthew C. Klein - Mar 28, 2013

Economists have identified two basic reasons why income inequality has increased so much since the early 1970s. On the one hand, [globalization and technological progress](#) have made certain skills much more valuable and others much less valuable. This has increased the spread between the incomes of high-earners, who are usually better-educated, and the rest.

At the same time, employers have been passing more risk on to workers. Except in the public sector, the promise of lifetime employment is dead. Defined-benefit pension plans have been mostly replaced by defined-contribution plans. Bonuses, stock options and other forms of profit-sharing have become increasingly important forms of compensation compared to traditional fixed salaries, especially for those at the top.

Pushing more risk onto workers has resulted in greater variability in individual incomes, which in turn tends to increase inequality. Imagine an economy with two workers, both making \$100 a year, and another with two workers, both making \$100 on average, with variations above and below that year by year. The second economy will have greater measured inequality, even though both workers make the same over multiple years. Greater variability has another implication: Inequality looks worse when incomes are measured over a single year than over longer periods of time.

Up to now, the evidence has suggested that each of these forces -- the balance of supply and demand in the market for skills, and the greater variability of short-term earnings -- was equally responsible for the increase in inequality. Last week, however, the Brookings Institution published a [paper](#) by Jason DeBacker and others that argues that all of the increase in inequality since 1987 has been caused by the first factor. Moreover, they conclude that the inequality is permanent rather than transitory.

The Brookings paper has been [enthusiastically](#) received [elsewhere](#). When the study was presented at the [Brookings Panel on Economic Activity](#), however, the validity of the paper's findings was questioned.

The issues seem abstruse, yet this academic disagreement has real policy implications. The sort of inequality that comes from workers bearing more risk can be offset with social insurance, including short-term unemployment benefits and subsidies for catastrophic health insurance. But if inequality is rising because of changes in the demand for skills, it would be better to focus on [education](#).

Disentangling the two forces isn't straightforward. If they had their way, economists would study the life histories of a large sample of workers in different age cohorts and then identify exactly why the income distribution changed. No such comprehensive dataset exists, however, so economists have to make inferences by testing what they do have against models.

Theoretically, globalization and technological progress have made the distribution of the permanent component of income more unequal, while the extra risks borne by workers have increased the impact of transitory changes to earnings. In practice, it's likely these forces are mutually reinforcing. For example, flexible pay that transfers risk to workers appeals to firms facing increased competition from abroad.

Modeling all of this is hard. One problem is aging. Income inequality among young people in entry-level jobs is much lower than among middle-aged people who have had years to rise to the top -- or sink to the bottom -- of their professions. One chart in the Brookings paper (on page 53 of the PDF) illustrates the point well: If the workforce gets older, inequality will appear to have increased even in the absence of structural changes in the economy.

Another problem is that the impact of a structural change that occurred in the past can be spread over many years. The reason is that workers closer to retirement won't be as affected as much as those entering the job market. The full effect may not show up for decades. It's possible that much of the observed increase in inequality was caused by structural changes in the 1980s. If so, inequality may soon stop getting worse -- all on its own.

Peter Gottschalk and Robert Moffitt came up with some clever tricks to overcome these challenges in a [paper](#) they presented at Brookings in 1994, drawing on [earlier work from the 1970s](#).

The idea is that each person's income grows and shrinks over time because of "shocks." Someone might get a job at a hedge fund straight out of college only to end up working in journalism. That would permanently lower his lifetime earnings path by a large amount. Every subsequent promotion, however, would permanently increase his lifetime income from that lower level.

Someone else might have to take a few months of unpaid leave because they got hit by a car. That shouldn't affect lifetime earnings much, if at all. He could even end up ahead if he sues and wins damages. Those would show up as transitory shocks that didn't affect lifetime earnings.

Their conclusion was that both the permanent and the transitory shocks had gotten bigger. They found that about half of the increase in income inequality could be attributed to each factor. Gottschalk and Moffitt have since updated their older paper with [newer data](#). Their basic finding hasn't changed.

Similarly, Jonathan Heathcote, Fabrizio Perri and Giovanni Violante [found](#), in a separate study, that "around half of the rise of residual wage inequality between 1967 and 2000 was transitory in nature."

By contrast, the authors of [the recent Brookings paper by DeBacker](#) found that all of the increase in income inequality could be attributed to larger permanent shocks. Their results could be right. After all, the authors had access to Internal Revenue Service data, which are better than the survey data on which earlier studies depended.

However, [Greg Kaplan](#), a Princeton economist who was asked to critique the paper for the Brookings panel, raised another possibility. The models work best when the sum of the transitory shocks is as close to zero as possible -- in other words, when they are genuinely transitory. If not, you could end up calling something "transitory" that is partially, or entirely, permanent.

This can be checked by looking at the statistical properties of the model. In the Brookings paper, you can find the relevant numbers in Table III of the appendix. The parameter rho would be close to zero if the shocks were perfectly transitory. (The scale ranges from -1 to 1.) For male earnings, it's estimated to be 0.94 (column 1a).

Bottom line: The model was specified in such a way that each "transitory" shock leaves a mark that lasts for decades -- longer than for the so-called "permanent" shocks. This calls the headline finding -- that the increase in inequality since 1987 was caused exclusively by larger permanent shocks -- into question.

That would be good. If the DeBacker paper's finding is correct, inequality is going to keep getting worse for a long time. We won't know for sure, though, until the doubts have been resolved.

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