The business cycle and earnings and income inequality

Economists and other analysts generally agree that inequality in both earnings and income increased over the last 40 years. Moreover, such inequality tended to accelerate in periods of economic downturn during that span. Together, these facts have led to renewed interest in the extent to which earnings and income inequality are affected by the business cycle, especially recessions. In a recent study, "Earnings Inequality and the Business Cycle," NBER Working Paper 10469, economists Gadi Barlevy (Federal Reserve Bank of Chicago) and Daniel Tsiddon (Tel Aviv University) examine this issue.

The authors develop a model in which long-term trends in earnings and income inequality are amplified during recessions, regardless of whether inequality is generally increasing or decreasing. In other words, the model predicts that during periods when inequality is growing, recessions will tend to exacerbate that trend and inequality will *increase* more rapidly. However, during periods when in-equality is decreasing, recessions will tend to accelerate that trend as well, and inequality will *decrease* more rapidly. To test their model empirically, the authors examine data from the entire 20th century. They find that, indeed, "downturns are associated with more rapid growth in inequality in [long-term] periods of rising inequality but with more rapid reductions in inequality in periods of falling inequality."

Barlevy and Tsiddon provide some explanations for their findings. They argue, for example, that the U.S. economy periodically experiences "waves of drastic technological innovation," such as the introduction of electricity and increased mechani-zation of production that occurred in the early 20th century, and the widespread computerization that occurred later in the century. Individuals differ in their ability to incorporate the new technology. As a result, they differ in their ability to take advantage of it—some are able to benefit from the new technology relatively quickly, while others are slower to absorb it and thus lose ground, economically, relative to their peers. Eventually, however, these "laggards" begin to catch up as they embrace the new technology. Thus, technological innovations first tend to increase earnings inequality, but in the longer term they tend to decrease it—at least until the next innovation comes along.

In their empirical analysis, the authors "begin with the one episode of declining earnings inequality during the past century," the period from the late 1920s to the early 1950s. They then examine two periods of increasing earnings inequality—the early 1900s to the late 1920s and the late 1960s to "at least the end of the century." The empirical findings support the predictions of their model, which attributes growth in earnings inequality to "technological upheavals." In-equality increased in the early 20th century due to the introduction of electricity and mechanized production. It decreased during the middle period, as the benefits of the new technology spread throughout the economy. Then, in the latter portion of the century, earnings inequality increased again with the widespread computerization of U.S. industry.

Siblings and earnings inequality

In the December 2004 Chicago Fed Letter, economist Bhashkar Mazumder presents new research on siblings and earnings inequality. His essay, "What similarities between siblings tell us about inequality in the U.S.," considers the question, "How important is family background in determining economic success in the United States?"

To address this question, Mazumder analyzes data from the National Longitudinal Survey of Youth (NLSY). The dataset consists of a sample of more than 12,000 men and women who were between ages 14 and 22 in 1979. (This longitudinal survey is ongoing; see **http://www.bls.gov/nls/nlsy79.htm** for more information). The sample includes more than 4,000 pairs of siblings.

For men, Mazumder estimates that the correlation among siblings in annual earnings is 0.49 and the correlation for hourly wages is 0.54. For women, he notes that the results tend to be lower, which he explains is "not surprising given the more varied labor force participation patterns for younger women."

Mazumder concludes that about half of earnings inequality in the United States is accounted for by family background. He writes that his finding about the correlation among siblings in economic outcomes "suggests that inequalities between families persist strongly from generation to generation and that the U.S. is a less mobile society than is commonly believed."

We are interested in your feedback on this column. Please let us know what you have found most interesting and what essential readings we may have missed. Write to: Executive Editor, *Monthly Labor Review*, Bureau of Labor Statistics, Washington, DC 20212; fax: (202) 691-5899, or e-mail: mlr@bls.gov