Monthly Labor Review
June 2018

Can a housing wealth shock stifle the creative output of workers?

Yavor Ivanchev

Exactly a decade ago, during the financial crisis of 2008, many U.S. households saw the value of their homes plummet. This wealth shock, along with the deep recession that followed it, has triggered a wave of research examining the ramifications of economic insecurity on consumer spending and various labor market decisions made by individuals and firms. What has remained understudied, however, is whether and how such insecurity could influence worker productivity. In "Does economic insecurity affect employee innovation?" (National Bureau of Economic Research, Working Paper 24011, November 2017), economists Shai Bernstein, Timothy McQuade, and Richard Townsend offer a rare glimpse into the possible answers to this question.

As the title of their article suggests, the authors focus on one particular kind of productivity—worker innovation—and examine its response to the financial distress caused by the housing bust of 2008. In theory, a wealth shock caused by a sharp drop in one's home value could have ambiguous effects on that individual's creative output. It could be that employees would exhibit little change in innovative performance if their work-related projects are routinized or tightly controlled by management or, alternatively, a boost in such performance if they fear that tough economic times could threaten their job security. It could also be, however, that the stress and cognitive impairment likely to arise under economic duress would drive down productivity.

Given these diverging possibilities, the authors seek answers through empirical assessment. To measure worker innovation, they use data on patents from the U.S. Patent and Trademark Office, focusing on the 5-year period following the financial crisis. These data are supplemented with information on worker demographic and job characteristics from LinkedIn and housing information (home size, location, etc.) from CoreLogic. To control for selection effects, the authors compare outcomes for individuals employed at the same company, in the same metropolitan area. Variations in housing-price shocks are observed at the ZIP Code level.

The authors' regression results indicate that declines in housing wealth due to the financial crisis had a significant negative effect on worker innovative output. This effect, which was stronger for housing shocks of greater magnitude, transpired both in the number of patents produced by affected employees and in the quality of those patents (measured with the number of patent citations). The authors also find that (1) workers who had less equity in their homes at the start of the financial crisis experienced greater decline in creative output and (2) the housing boom that preceded the crisis did not lead to any increase in such output. They interpret these findings as evidence that financial distress was a potent force working against employee innovation.