THE LIFETIME IMPACT OF RECESSIONS AND THE MITIGATING ROLE OF THE GOVERNMENT

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Abstract

Despite increasing evidence that adverse economic conditions in young adulthood, such as recessions, have persistent effects on workers earnings, employment and health, little is known on how early economic conditions influence well-being, including labor market outcomes and health, over the entire lifetime, and how government policies can mitigate such potentially long-lasting losses. In this paper, we first investigate the effects of economic conditions around the time of graduation on lifetime mortality, employment and earnings. In a second step, we estimate whether and how government policies can mitigate the lifetime effects of recessions using both a cohort-level analysis and an individual-level analysis. To do so, we have assembled a we assembled a broad range of data sets on local economic conditions, local government policies, and individual earnings and health outcomes covering more than a century of the U.S. labor market. Using these data sets, we proceed in three steps. We first estimate the effect of local economic conditions at high-school graduation on a range of lifetime career outcomes. Second, we estimate the effect of these conditions on lifetime health outcomes. Third, we assess how these effects vary with government interventions in an instrumental variable framework, exploiting the impact of variation in political affiliation at the regional level on disbursement of government aid during the Great Recession.

Extended Abstract

Despite increasing evidence that adverse economic conditions in young adulthood, such as recessions, have persistent effects on workers earnings, employment and health [Oreopoulos, von Wachter and Heisz 2012; Genda, Kondo and Ohta 2010; Kahn 2009; Schwandt 2013], little is known on how early economic conditions influence well-being, including labor market outcomes and health, over the entire lifetime, and how government policies can mitigate such potentially long-lasting losses.

In this paper, we first investigate the effects of economic conditions around the time of graduation on lifetime mortality, employment and earnings. Using census data matched to a unique dataset of economic indicators from 1915 onwards, we can isolate workers subject to recessions early in their working lives and track the consequences of this shock on lifetime outcomes. In a second step, we estimate whether and how government policies can mitigate the lifetime effects of recessions using both a cohort-level analysis and an individual-level analysis.

To study the lifetime effects of early labor market conditions and government interventions, we assembled a broad range of data sets on local economic conditions, local government policies, and individual earnings and health outcomes covering more than a century of the U.S. labor market. Using these data sets, we proceed in three steps. We first estimate the effect of local economic conditions at high-school graduation on a range of lifetime career outcomes. Second, we estimate the effect of these conditions on lifetime health outcomes. Third, we assess how these effects vary with government interventions in an instrumental variable framework.

In our main empirical analysis, we focus on the cohorts born between 1900 and 1925, entering the labor market between 1915 and 1940. These cohorts are of interest for several reasons. First, most individuals have died, allowing us to evaluate the effects of recessions over lifetime outcomes including longevity and retirement. Second, there is a great deal of variation in the economic conditions faced by these cohorts—most importantly some of these cohorts experienced the Great Depression (GD) in their youth, the only recession that is comparable in magnitude and duration to the current GR. Third, we can investigate how government relief programs moderated the impact of recessions. There were no large-scale relief programs prior to 1933, thus we can compare the effect of recessions in the absence of interventions, to the effects of recessions after 1933 with the added government responses (detailed county-level data on relief programs during the 1930s, available from Fishback et al 2006).

The first step of the analysis is to estimate the long-term effect of entering the labor market in a recession on a range of career outcomes. We concentrate on the experience of individuals graduating between 1920 and 1940, and those graduating between 1950 and 1970. Thus we study the effects of the Great Depression and compare those to the effects of smaller recessions during the post war period. By following cohorts based on their birth year and state of birth in successive decennial censuses from 1920 until 2010 we trace the evolution of employment and earnings. We match these cohorts to economic conditions at graduation and investigate the lifetime effects of five different measures of economic conditions at the state level: unemployment rates, GDP, manufacturing employment and earnings and banking deposits. Overall we find that the short term impact of recessions is of similar magnitude to previous contemporary estimates. Long term effects include important employment effects. Overall we compute that graduating in a recession substantially lowers the PDV of lifetime earnings.

We also estimate the effects of poor labor market conditions at entry on long-term mortality. We compute 10-year mortality rates from 1940 to 2000 using census counts by state-of-birth and years of birth that are available from samples of population. The mortality of cohorts graduating in recessions is positive and substantial, in contrast to the beneficial short term effect of recessions on mortality which is negative. Overall life expectancy falls for those graduating in bad times.

We confirm these results using 4-year mortality rates by state-of-birth and year-of-birth in 1960, 1980, 1990 and 2000. These mortality rates are substantially more precise than those based on census samples because deaths by state-of-birth are counted from individual death certificates containing state-of-birth information. We also estimate our mortality models using a sample of poor individuals matched to county-level economic conditions when their mother applied for means-tested cash transfers. Because we observe them in childhood we have a better proxy of the location where individuals first enter the labor market and whether county measures yield similar estimates as state-level among the poor. Overall the results suggest that recessions have larger impacts on long term health among the poor.

Finally we replicate our results for all outcomes using a restricted access version of the National Longitudinal Mortality Study (NLMS). We look at the sample of individuals born between 1905 and 1960 and match them to economic conditions at age 14 in their state of birth. The NLMS data contain about 1.7M individuals surveyed between 1973 and 2002 in either the census or the Current Population Survey, and matched to individual mortality records up to December 31, 2011. These data have more accurate mortality measures as well as additional outcomes of interest such as cause of death, family income, insurance status, etc. But only individuals that survived to 1973 are observed.

In the final part of the paper we investigate the extent to which government relief programs mediated these negative effects on mortality, employment and earnings. We make use of data on state- and county-level expenditures over time to estimate whether and to what extent these expenditures mitigated the impact of recessions. Because government expenditures increase in areas with deteriorating economic conditions, ,tone should instrument for the level of government expenditures. We use measures of political competition to instrument for the level of local transfers from the federal government. We find that government expenditures in bad times lower the negative impact of recessions on outcomes, though never entirely. We use our results to estimate the value of eliminating GDP fluctuations for risk-averse individuals and the extent to which government transfers provide insurance.