Long-term Effect of In Utero Exposure to Land Reform on Academic Performance in China

Douglas Almond, Columbia University & NBER
Hongbin Li, Tsinghua University
Binzhen Wu, Tsinghua University
Shuang Zhang, Cornell University

November 20, 2012

Abstract

While a growing body of literature exploits extreme shocks in utero to test the fetal origins hypothesis, empirical evidence on the later-life impacts of income shock is relatively thin. This paper examines the effect of prenatal exposure to the 1978-84 land reform in China on academic performance, as captured by college entrance exam scores. By replacing collectivized farming with more autonomous household farming, the economic liberalization is widely documented to have increased rural household income and reduced poverty. Using each test-taker’s year of birth and county in infancy matched to the year land reform started in his/her county in infancy for 1068 counties, we find that high school students born just after the first post-reform harvest perform better on college entrance exams, math especially, and are more likely to be admitted by first-tier and top-ranked colleges. These effects are substantially stronger for boys. Our findings suggest that income might be beneficially targeted to the prenatal period and that “pro-growth” policies can lay the foundation for human capital accumulation.