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HIGHER INCOME PREDICTS POORER LONG-TERM HEALTH OUTCOMES IN CHINA

Ethan Brodeur, Ben Rosenkranz, and Haoshu Xu

Mentor: Phil Dybvig

Since the implementation of Deng Xiaoping's "reform and opening-up" policy in 1978, "改革开放," internal restructuring and international trade have fueled rapid economic growth and societal change in China. *Throughout history, times of large economic change have been natural times to look for health problems in a population. This study looks at whether past income predicts future health outcomes during the remarkable socioeconomic shifts generated in China since 1978. Are the poorer members of society at greater risk for developing health problems from malnutrition, such as low BMI? Are more affluent members of society at greater risk for developing health problems from stress, overeating, or sedentary lifestyle, such as diabetes, high BMI, or hypertension?*

Data from the China Health and Nutrition Survey, collected from 1989 through 2011, is used to build longitudinal binomial logistic models that test the effect of past income on various lagged health outcomes. Explained variables include current BMI, blood pressure, and diabetes, controlling for age, gender, and corresponding past health measures, with "past" defined as 1989 and "current" defined as 2011, the most recent year of the survey. The main findings indicate that higher past income implies an increased likelihood of becoming overweight, while current income does not have similar predictive power. Additionally, past income significantly *predicts diabetes* diagnoses, but not hypertension or malnutrition (proxied by low BMI). The results remain mostly robust when tested with data from different years, though potential biases from changes to the cross-sectional sample over time are investigated. Overall, past income's relationship with current health in this dataset seems to better illustrate the negative impact of Western lifestyles on wealthy Chinese than the negative impact of malnutrition on poorer Chinese.