# Zihan Hu

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## **EDUCATION**

Ph.D., Economics (funded by Brooks School of Public Policy), Cornell University, 2017-present

Master (by Research), Economics, National University of Singapore, 2014-2017.

A.B., Economics, Peking University, 2009-2014.

#### RESEARCH FIELDS

Labor Economics, Development Economics

#### Awards and Grants

Ernest Liu '64, Ta-Chung and Ya-Chao Liu Memorial Fellowship, Department of Economics, Cornell University, 2022-2023

Humane Studies Fellowship, Insititute for Humane Studies, George Mason University, 2022

Hsien Wu and Daisy Yen Wu Scholarship, Graduate School, Cornell University, 2022

Sadov Graduate Student Fellowship, College of Arts and Sciences, Cornell University, 2021

Excellence in Research Fellowship, Department of Economics, Cornell University, 2021

Tapan Mitra Economics Prize for 3rd-year paper, Department of Economics, Cornell University, 2020

Red Wilson Excellence in Economics Medal, Department of Economics, Cornell University, 2019

Small Grants in Labor Economics, Department of Economics, Cornell University, 2019

Gregory Chow Best Paper Award, Chinese Economists Society, 2018

#### **Publication**

Hu, Z., & Li, T. (2019). Too Hot to Handle: the Effects of High Temperatures during Pregnancy on Adult Welfare Outcomes. *Journal of Environmental Economics and Management*, 94, 236-253.

**Abstract:** This paper studies the long-term effects of high temperatures during pregnancy on later-life outcomes for Chinese adults. Adults experienced one additional high-temperature day during *in utero* period, on average, attain 0.02 fewer years of schooling, increase the risk of illiteracy by 0.18%, achieve lower standardized word-test score by 0.48%, and are shorter by 0.02 cm. The impacts are greater in the first and second trimesters. Additionally, we find that income effects represent one important channel to explain the adverse effects of hot weather. Back-of-the-envelope predictions suggest that by the end of the 21st century, a 0.14-0.54 reduction in years of education and a 0.21-0.84 cm reduction in height is likely to result from climate change, ceteris paribus.

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## WORKING PAPERS

#### How Competition Shapes Peer Effects: Evidence from a University in China (with Siyu Chen)

Abstract: Competition is widely used to motivate effort and increase performance. However, in many domains, performance is aided by cooperation between agents in addition to their own efforts. In this case, competition may impose costs on helping each other since the chance of winning is decreasing in the success of peers. Education is a natural setting where peer interactions and help from others enhance individual performance. This paper examines how competition changes peer effects and peer interactions using administrative data from a university in China. Exploiting randomly assigned roommates, we find that high ability students have detrimental effects on the performance of their high ability roommates. More importantly, this negative peer effect increases significantly along various dimensions of competition intensity within a dorm room. The follow-up survey we conduct reveals that this is likely driven by competition discouraging help and interactions among roommates.

**Presentation:** CU/SU education conference (2022); SOLE (2021); AEFP (2021); NEUDC (2020); IESR peer effects workshop (2020, by coauthor); CES North American (2020); Beijing Normal University (2019)

**Nutrition, Labor Supply, and Productivity: Evidence from Ramadan in Indonesia** (with Zhiwen Wang) **Abstract:** This paper studies the short-term effects of nutrition deficiency on labor supply and productivity. Using high-frequency administrative data from a retail chain in Indonesia, we exploit the nutrition shock induced by Ramadan fasting among Muslim salespersons, a non-physically demanding occupation. Based on an event study approach and comparing Muslim and non-Muslim salespersons, we show immediate, adverse effects of nutrition deficiency on labor supply and productivity. Specifically, we find a 30% decrease in productivity for Muslim salespersons during the two hours before sunset, when they experience the most energy deficiency. Their productivity recovers immediately after sunset, when they can break their fast. They leave work 32 minutes earlier during the hours of greatest energy deficiency. These effects are in line with the nutrition mechanism and are not likely driven by major competing explanations such as demand shocks, fast-breaking events, dehydration, and sleep deprivation.

**Presentation:** IRES Religion Graduate Student Workshop (2022, by coauthor); PacDev(2022, by coauthor); AEA (2021); AASLE (2019); NEUDC (2019); WEA (2019); ASHEcon (2019); WEA International(2019); Cornell Health Economics Seminar (2019); Peking University (2019); Beijing Normal University (2018)

The Minimal Impacts of the One-Child Policy on Aggregate Fertility Decline in China (with Gordon Liu and Samantha Vortherms)

**Abstract:** What impact did China's One-Child Policy (OCP) have on aggregate fertility? We compare fertility in two provinces with the OCP, Guangdong and Fujian, with demographically similar bordering regions without the OCP, Hong Kong and Taiwan. Using micro-census data, these paired case comparisons show that the OCP did not decrease aggregate fertility, measured as birth likelihood and average number of siblings. Using data from cities in two other provinces, we also show the OCP was likely not binding on fertility levels because relaxing the OCP did not increase fertility rates in pilot cities compared to neighboring cities that did not relax the policy. Our findings emphasize the need to understand the limits of policy to affect national-level fertility rates.

### Works in Progress

How Land Security Reform Changes the Impact of Agricultural Machinery Subsidy Policy: Evidence from China (with Elaine Liu and Peng Wang)

Optimal Tournament Frequency to Incentivize Efforts with Heterogeneous Workers (with Michelle Belot)

GDP or Life? Promotion Incentives of City Mayors and Workplace Accidents (with Hao Yang)

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Learning-by-Doing or Learning-and-Specialization? (with Zhiwen Wang and Qi Wu)

## TEACHING EXPERIENCES

2022.1-2022.5, Intermediate Microeconomics, TA for Brandon Trip 2013.2-2014.1, Econometrics, TA for Qingjie Xia 2012.9-2013.1, Topics on Development Economics, TA for Pengfei Zhang

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