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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 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

JOB MARKET PAPER

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); AEFPP (2021); NEUDC (2020); IESR peer effects workshop (2020, by coauthor); CES North American (2020); Beijing Normal University (2019)

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*.

WORKING PAPERS

Religious Practice and Worker Performance: Evidence from Ramadan in Indonesia (with Zhiwen Wang)

Abstract: More than six billion people practice certain religions. How religious practices affect worker performance is theoretically ambiguous. On one hand, religious practices require time that are then unavailable for production. Moreover, certain practices, such as fasting, may also directly impact worker productivity. On the other hand, religion may foster better work ethic and workers may find ways to attenuate the potential economic costs. Our paper examines the effects of religious practices on labor supply and productivity and how workers respond to a change of external constraints in the context of observing Ramadan fasting. We obtain high-frequency administrative data from a large retail chain in Indonesia and utilize an event-study approach to compare the performance of Muslim salespersons and their non-Muslim colleagues during Ramadan. We find that Muslim salespersons leave work 22 minutes earlier, and their productivity (after controlling for demand side changes) decreases by 21% around sunset, compared to their non-Muslim counterparts. Meanwhile, they exert more effort earlier in the day to compensate for decreased productivity later in the day or shorter working hours. Due to their reallocation of efforts, there is no significant change in the aggregate daily sales of Muslim salespersons during Ramadan. Lastly, we find that such effort reallocation is more salient among workers with more Ramadan experience in the workplace, suggesting this optimization is learned over time.

Previously circulated as: **Nutrition, Labor Supply, and Productivity: Evidence from Ramadan in Indonesia** (with Zhiwen Wang)

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)

Abstract: We investigate how land property rights protections substantially change the effects of an agricultural machinery subsidy policy in rural China. We find that in the absence of land property rights protection, the machinery subsidy policy benefits only households in the top quartile of land possession in terms of increased machine use, farm size, income, and household expenditure. The beneficial effects are especially salient for households whose members are government officials, since they have the power to reassign land. In contrast, households in the bottom quartile of land possession have worse outcomes. After a land property rights protection reform was passed that restricts officials' power to reassign the land and allow farmers to lease out their land, poor households are no longer hurt by the subsidy policy, and the differences between official and non-official households disappear.

Such results are consistent with a model of expropriation behavior. Without land property rights protections, the machinery subsidy policy incentivizes the rich, especially politically connected households, to expropriate land from poor households. Only with appropriate land property rights protection does the machinery subsidy policy leads to agricultural modernization instead of expropriation against poor households. Most of the previous research about land security focuses on its own effects. Our paper highlights that land security is also crucial to the success of other agricultural policies. Moreover, our paper is also relevant to the discussion about the scale-up of interventions since our results suggest that it is crucial to pay attention to whether an appropriate institutional infrastructure is established to achieve the desired policy outcomes in scaled interventions.

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

We examine how city mayors' promotion incentives to pursue high GDP growth leads to increased workplace accidents. Economic growth is a major factor in promotion among Chinese city mayors. In contrast, workplace accidents have much lower impacts on promotion unless there are major accidents with more than 10 deaths. Moreover, prefectural city mayors after the age 57 are not eligible for promotion to the vice-provincial level. Therefore, mayors have no promotion incentives after 57. Consistent with the change in promotion incentives, preliminary analysis shows a significant drop in workplace accidents right after mayors reaching the age 58. Our results suggest that the promotion incentive of local officials to increase economic output accounts for 19

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

We examine the underlying reasons for learning-by-doing, the increasing of overall productivity over time, in a multi-tasks context. Specifically, we consider two potential reasons: 1) practice-makes-perfect: the repetitive working experience increases the task-specific productivities; 2) learning-and-specialization: workers gradually realize their comparative advantage over time and can allocate their time more efficiently across tasks. Learning-and-specialization can increase aggregate productivity even if the task-specific productivities do not increase. It is important to distinguish the two potential reasons since the company may want new workers to focus on certain tasks if practice-makes-perfect dominates and want new workers to rotate across different tasks if learning-and-specialization dominates. Preliminary results show a clear specialization of salespersons as they become more experienced. Moreover, salespersons who specialize over time are those who have the highest aggregate productivity growth.

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

TEACHING EXPERIENCES

2022.1-2022.5, Intermediate Microeconomics, TA for Brandon Trip

2016.6-2016.8, Statistics, Part-time Tutor for MBA

2013.2-2014.1, Econometrics, TA for Qingjie Xia

2012.9-2013.1, Topics on Development Economics, TA for Pengfei Zhang

REFERENCES

Ravi Kanbur (Committee Chair)

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