XIAOMAN LUO

Contact Information
Address: Department of Agricultural and Resource Economics
University of California, Davis
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Education
University of California, Davis, Davis, CA
Ph.D. Candidate in Agricultural and Resources Economics, 2015 to present
Expected Completion Date: June 2021
Thesis advisors: Ashish Shenoy, J. Edward Taylor, Stephen R. Boucher

University of California, Los Angeles, Los Angeles, CA
Master of Public Policy, 2015

Nanjing University, Nanjing, China
B.A. in Finance, 2013

Research Fields
Development Economics, Labor Economics, Education, Applied Econometrics

Teaching Experience
Teaching Assistant
University of California, Davis
ARE 100A Intermediate Microeconomics, Winter & Fall 2020 (No evaluation due to COVID)
ARE 106 Econometrics, Spring 2017 & Fall 2019 & Spring 2020, Evaluation: 4.7/5
ARE 107 Econometrics for Business Decisions, Winter 2017, Evaluation: 4.7/5

University of California, Los Angeles
PP 208 Statistical Methods for Policy Analysis, Winter 2015 (No evaluation)

Research Experience
Graduate Student Researcher
2019 University of California, Davis, Advisor: J. Edward Taylor
2017-2019 University of California, Davis, Advisor: Ashish Shenoy

Research Assistant
2013-2015 University of California, Los Angeles, Advisor: Manisha Shah

Professional Activities
Talks
2021 AEA Virtual Annual Meeting (Poster Session)
2020 Agricultural & Applied Economics Association Virtual Meeting
    Pacific Conference for Development Economics (PacDev) at UC Berkeley
    Graduate Students in Economics of Education Zoom (GEEZ) Seminar Series
    IESR at Jinan University
2019 All-CA Labor Conference (Poster Session) at UC Santa Cruz
    Agricultural & Applied Economics Association Annual Conference
    Chinese Economists Society Annual Conference
    Migration Research Cluster at UC Davis
2018 Giannini ARE Student Conference at UC Berkeley

Reviewing
Pacific Conference for Development Economics (PacDev) at UC Davis

Honors, Scholarships, and Fellowships
2019 - 2021	Henry A. Jastro Graduate Research Award (UC Davis)
2019	AAEA Travel Grant by the Gifford Center for Population Studies (UC Davis)
2019	Speaker Award by the Gifford Center for Population Studies and Migration Research Cluster (UC Davis)
2015	Best Teaching Assistant of Luskin School of Public Affairs (UCLA)
2014	Hal E. Martin Scholarship & Bette and Hans Lorenz Endowment (UCLA)

Research Papers:

"How Does Parental Out-migration Affect Left-behind Children's Schooling Outcomes?"
(*Job Market Paper*)
In this paper, I investigate how parental out-migration affects the schooling outcomes of left-behind children in rural China. Unlike previous works which almost exclusively focus on the net effect of migration, I analyze three important causal mechanisms -- parental absence, child's study time, and investment in the child -- simultaneously via a mediation analysis, disentangling the total effect of migration into mechanism-specific effects which are informative for policy makers. The analysis can be justified by the equilibrium solution of a theoretical two-agent model. The identification strategy is based on the rank condition for structural equation models to handle the endogeneity and Heckman selection model to correct for sample selection. Using survey data on rural households from nine provinces, I find that the effects through parental absence and investment are both significantly negative with large sizes, while the effect through child's study time is insignificant with a negligible size. The surprising negative effect through investment is mainly driven by reduced nutrition investment by de facto custodians, who may not have compatible incentives to allocate the remittances on the child. Through a refined subgroup analysis, I find that girls are suffering ten times more from the underinvestment than boys, revealing a shocking gender inequality in rural China. The findings suggest that policies which compensate for underinvestment, especially for girls, tend to be more effective in mitigating the negative effect of migration than other types of policies.

Research Papers in Progress

"Double Robust Two-way Fixed Effect Regression for Panel Data."
(*With Dmitry Arkhangelsky, Guido W. Imbens, and Lihua Lei*)
We propose a new method for estimating the average causal effects of a binary treatment with panel data. Our estimator augments the standard two-way OLS regression with the unit-specific weights that arise from the assignment model. For the empirically relevant case where units opt into the treatment sequentially (staggered adoption), we show how to construct these weights using conventional duration models. We prove that in a realistic setting where both the two-way regression and the assignment model are somewhat misspecified, our estimator performs better than the conventional two-way estimator. This strong double robustness property quantifies the benefits of taking into account the information about the assignment process. We argue that this information is often available (due to experimental or quasi-experimental shocks) and encourage applied researchers to use it. As a byproduct, we characterize the class of experimental designs under which the traditional methods are guaranteed to produce consistent estimates of the causal effects. The method from our paper can be widely applied to empirical analysis such as program evaluation.

"What Do We See in the Lights? Lights at Night and Measures of National Growth."
(*With Ashish Shenoy*)
Many studies have attempted to find alternative measures for the gross domestic product, and one motivation for these studies is that these measures are correlated with the development and wellbeing of people. Common methods for constructing alternative measures are based on the national accounts, survey data, or expenditure-based measures. A popular alternative approach is to use the light intensity at night. In this paper, we find that the correlation between growth in night light intensity and growth in gross domestic product is only high for some countries, using machine learning methods. To increase the efficiency and enable valid inference, we propose an weighted least squares estimator to estimate the

average effect for different groups of countries. We then use the correlation between night light intensity and expenditure-based measures to construct an alternative measure for national growth.

"Local-economy Impacts of Cash Crop Promotion."
(*With J. Edward Taylor, Edward Whitney, and Heng Zhu*)
A number of studies have examined the direct impacts of cash crop production on producer households. This is the first to quantify the general equilibrium impacts of introducing a new cash crop into a poor isolated economy, including impacts on environmentally sensitive fishing activities. We find that the introduction of oil palm production explains the striking growth in income in Uganda's Ssese Islands, including large-scale production spillovers to non-palm sectors, as well as a significant reduction in pressure on the Lake Victoria fishery. Results from innovative measures such as night light intensity also confirm the change. It appears that oil palm development, via a project that connected a commercial aggregator with small-scale farmers, enabled an economy at a low-level equilibrium to transition to a higher equilibrium state, with positive spillovers across households as well as across production sectors. Econometric evidence confirms results from simulations using an island-wide general equilibrium model parameterized from new micro survey data.