Parth Chawla

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RESEARCH AREAS

Development Economics, Firm Productivity, Trade, Migration

ACADEMIC EXPERIENCE

2021 – 2026 Ph.D. in Agricultural and Resource Economics, University of California, Davis

2018 – 2019 M.Sc. in Economics, Trinity College Dublin

2014 – 2017 B.Sc. in Physics, Royal Holloway, University of London

DISSERTATION COMMITTEE

Prof. Travis Lybbert (Chair)
Department of Agricultural and Resource Economics
University of California, Davis
tlybbert@ucdavis.edu

Prof. J. Edward Taylor
Department of Agricultural and Resource Economics
University of California, Davis
jetaylor@ucdavis.edu

Prof. Arman Rezaee
Department of Economics
University of California, Davis
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WORKING PAPERS

Chawla, P. 2025. "Can Human Capital Improve Firm Resilience in Financial Crises? Evidence from the 1997 Indonesian Crisis." Working paper. Available at SSRN. (Job Market Paper)

Summary: Do returns to human capital rise during crises? This paper examines whether Indonesia's INPRES school construction program in the 1970s improved firm resilience during the 1997 Asian Financial Crisis. I combine a difference-in-differences strategy with a shift-share instrument, exploiting variation in district INPRES intensity and the national share of treated working-age cohorts. I find that each additional school per 1,000 children raised post-crisis real labor productivity and output by 2.8 and 3.5 percent, respectively. These effects are not explained by pre-crisis differences in basic educational attainment. Instead, INPRES contributed to a pre-crisis shift of workers toward skill-intensive production work. Using reduced-form evidence and a simple model, I show that the resulting local abundance of skilled production workers helped keep their wages lower in high-INPRES districts, enabling plants to retain more skilled workers during the crisis.

Barriga-Cabanillas, O., **Chawla, P.**, Redaelli, S. and Yoshida, N. 2023. "Updating Poverty in Afghanistan Using the SWIFT-Plus Methodology." Policy Research Working Papers, 10616. World Bank, Washington, D.C. (Submitted)

Summary: This paper uses a machine learning-based survey-to-survey imputation method (SWIFT-plus) to estimate poverty in Afghanistan following the Taliban's return to power in August 2021. A model trained on the 2019/20 Expenditure and Labor Force Survey is used to predict household consumption in the 2023 Afghanistan Welfare Monitoring Survey, a phone survey drawn from the same sampling frame. The results show that 48.3 percent of the population was poor as of April-June 2023, a 4 percentage point decline since the same months in 2020. This decline was driven by falling rural poverty, while urban poverty remained unchanged.

RESEARCH IN PROGRESS

"Predicting Mexico-to-US Migration with Machine Learning for Counterfactual Analysis," with J. Edward Taylor

Summary: Reliable tools to predict migration are increasingly important amid rising climate and economic risks, and demographic shifts. Tree-based machine learning models can uncover complex, nonlinear relationships that conventional models often miss and can be used to simulate responses to shocks. Migration data are costly to collect, so models must perform well with readily available data. We first train a LightGBM model on an ideal dataset, a panel tracking the employment locations of 10,739 individuals from 1980 to 2007, and achieve high predictive accuracy. Using this as a benchmark, we then train a model on just four years of data without migration histories. By adding public weather data, this restricted model approaches benchmark performance (within 0.1 F1 score). Counterfactual shocks show that a 10% rise in temperature reduces migration by 13% the following year, a 10% increase in age lowers it by 17%, and a 10% drop in income by 18%.

"Is Technology Inappropriate for Developing East Asia?," with Francesca de Nicola, Aaditya Mattoo and Jonathan Timmis (World Bank East Asia Pacific)

"Firm Networks and Resilience to Shocks in Rural Markets," with Daniel Putnam and Jess Rudder

"Financial Literacy and Small Firm Performance in Uganda," with Ester Agasha, Andrew Hobbs, Travis Lybbert, Nathalie Nyanga, and Bruce Wydick

"Local Economic Impacts of Cash Transfers to Refugees and Asylum Seekers in Mexico, Mauritania, and Moldova," with Justin Kagin and J. Edward Taylor

GRANTS, FELLOWSHIPS AND AWARDS

2025	UC Davis ARE Grad Travel Award
2024	Giannini Dissertation Fellowship ($21,500 stipend)
2024	Giannini Foundation Mini-Grant, $20,000 (with J. Edward Taylor)
2024	Henry A. Jastro Graduate Research Award, $3,000
2024	UC Davis ARE Summer Research Fellowship
2021 – 2024	UC Davis Nonresident Supplemental Tuition Fellowship
2021 – 2022	UC Davis Provost's Fellowship ($25,000 stipend)
2017	Royal Holloway Passport Award
2014	Royal Holloway International Excellence Scholarship (tuition waiver)

PROFESSIONAL EXPERIENCE

2023 – Present	Consultant, The World Bank, Washington, D.C.
2023 – 2024	Graduate Student Researcher for Prof. J. Edward Taylor, UC Davis
2022	Research Intern, United Nations Development Programme, New York, NY
2022	RA to Prof. Yusuf Neggers, Ford School of Public Policy, Univ. of Michigan
2019 – 2021	Research Associate, Evidence for Policy Design, Harvard Kennedy School (based in Delhi, India)

TEACHING EXPERIENCE

Main Instructor: Economic Development (UC Davis, 2024)

Teaching Assistant: Operations Research & Management Science, Economic Development, Econometric Methods, Agricultural Labor, Intermediate Microeconomics, Math & Statistics for Economics (Average evaluation score of 4/5 from 119 responses)

Teaching Fellow: Math Foundations Course (Ashoka University, 2018)

BLOG ARTICLES

"Government Intervention in India and Taiwan Affects Global Rice Markets" (with Tzu-Hui Chen), Ag Data News (2022)

PRESENTATIONS

AAEA & WAEA Joint Annual Meeting 2025 (Best Poster Award Recipient), Japan Economic Policy Association 2025, UC Davis Development Workshop, Giannini Student Research Conference

SERVICE

Referee: Journal of Agriculture and Food Research

Other: Grad School Application Mentor

SKILLS AND METHODS

Programming: Python (pandas, scikit-learn), R, Stata, SQL/MySQL

Tools and Platforms: Git, Unix, Markdown, R Shiny, AWS (EC2, RDS), SurveyCTO

Statistical Methods: Machine Learning (Linear/Logistic Regression, Random Forests, Gradient Boosting, LightGBM), Causal Inference (DiD, RDD, IV, PSM, SC), Panel Data Econometrics

LANGUAGES

English (Native/Bilingual), Hindi (Native/Bilingual), Korean (Beginner)