Parth Chawla

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SPECIALIZATION

Economic Development, Firms, Human Capital, Trade, Migration, Machine Learning.

ACADEMIC EXPERIENCE

2021 – Present   Ph.D. in Applied 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

WORKING PAPERS

Chawla, P. 2025. "Can Human Capital Improve Firm Resilience in Financial Crises? Evidence from the 1997 Indonesian Crisis". Working paper.

Summary: Do returns to human capital rise during crises? This paper examines whether human capital accumulation from Indonesia's INPRES school construction program improved firm resilience during the 1997 Asian Financial Crisis. The crisis struck about a decade after the first generation exposed to INPRES, who gained higher educational attainment due to the program, entered the workforce. I find that INPRES significantly improved post-crisis plant performance. Each additional INPRES school per 1,000 children in a plant's district led to a 2 percent increase in real output per worker, on average, after 1997, compared to what would have been expected otherwise. I also find that plants benefiting from INPRES-produced human capital engaged in greater skilled labor hoarding, likely due to the higher costs of replacing educated workers after 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.

Summary: This paper applies a machine learning-based survey-to-survey imputation method (SWIFT-plus) to estimate poverty in Afghanistan after 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. Results show that 48.3 percent of the population was poor as of April to June 2023, a 4 percentage point decline since 2020, driven by falling rural poverty while urban poverty remained stagnant.

PROFESSIONAL EXPERIENCE

2023 – Present   Consultant, The World Bank, Washington, D.C.

   - Consultant in the East Asia and Pacific Chief Economist's Office and previously with the Poverty and Equity Global Practice.
   - Latest project: Report on firm productivity in the EAP region, analyzing the impact of skills, tradability, non-tariff measures (NTMs), digital intensity, and pandemic resilience on total factor productivity (TFP) and other firm outcomes. This analysis uses firm financial statement data, labor force surveys, input-output tables, trade data, and firm-level production function estimation (Ackerberg, Caves, and Frazer, 2015; Wooldridge, 2009).

	- Past projects: Poverty projections in Afghanistan using machine learning models (paper below); Economic activity analysis in Afghanistan using nightlights data.
2023 – 2024	Graduate Student Researcher for Prof. J. Edward Taylor, UC Davis
	- Projects: Local economy-wide impacts of protected areas in Africa (World Bank project); Local economy-wide impacts of cash transfers to refugees (UNHCR project)
2022	Research Intern, United Nations Development Programme, New York, NY
	- Contributed to the 2021/22 UNDP Human Development Report by conducting data analysis and creating data visualizations to effectively communicate key findings.
2022	RA to Prof. Yusuf Neggers, Ford School of Public Policy, Univ. of Michigan
	- Scraped millions of rows of publicly available administrative data using Python, utilizing AWS for automation and a MySQL database for storage.
2019 – 2021	Research Associate, Evidence for Policy Design, Harvard Kennedy School
	- Executed two large-scale randomized control trials (RCTs) across three Indian states in collaboration with US-based economists, managing a field team of 15 members.
	- Collaborated with government officials to align project objectives and designed survey questionnaires for over 1,000 officials.
	- Built Python data pipelines to scrape and process over 50 million rows of public data from government websites and APIs.
	- Conducted econometric analyses, produced data visualizations, and prepared reports.
2018	Economics Intern, Koan Advisory, Delhi, India
2018	Teaching Fellow, Ashoka University, Sonipat, India

SELECTED RESEARCH IN PROGRESS

"Predicting Mexico-to-US Migration with Machine Learning for Counterfactual Analysis and Hypothesis Generation", with J. Edward Taylor and Siyao Wang

"Supply Chain Networks, Risk Sharing, and Resilience to Shocks Among Small Firms in Tanzania", with Jess Rudder and Daniel Putnam

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, Synthetic Control), Panel Data Econometrics

RESEARCH 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)

TEACHING EXPERIENCE

Main Instructor: Economic Development (UC Davis, 2024)

TA: Operations Research & Management Science, Economic Development, Econometric Methods, Agricultural Labor, Intermediate Microeconomics, Math & Statistics for Economics

BLOG ARTICLES

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

SERVICE

Referee: Journal of Agriculture and Food Research

Other: Grad School Application Mentor

LANGUAGES

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