

Parth Chawla

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SPECIALIZATION

Macro-Development, Firm Productivity, 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

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.
- Current 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 (Akerberg, 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 – Present 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

WORKING PAPERS

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 uses survey-to-survey imputation and a SWIFT-plus methodology to estimate poverty in Afghanistan following the Taliban’s return to power in August 2021. A machine learning model is trained on the 2019/20 Expenditure and Labor Force Survey and applied to the latest Afghanistan Welfare Monitoring Survey. Results show that 48.3 percent of the population was poor as of April–June 2023, a relative decline of 4 percentage points compared to the same period in 2020, with rural poverty declining while urban poverty remained stagnant.

SELECTED RESEARCH IN PROGRESS

“Predicting Mexico-to-US Migration with Machine Learning: Counterfactual Simulations of Economic and Policy Shocks with Hypothesis Generation”, with J. Edward Taylor

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

RESEARCH GRANTS

2024 Giannini Foundation Mini-Grant, \$20,000 (with J. Edward Taylor)

2024 Henry A. Jastro Graduate Research Award, \$3,000

FELLOWSHIPS AND AWARDS

2024 Giannini Dissertation Fellowship (\$21,500)

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

2024 Main Instructor, Economic Development, UC Davis

2023 TA, Econometric Methods, UC Davis

2023 TA, Agricultural Labor, UC Davis

2022, 2024 TA, Intermediate Microeconomics, UC Davis

2018, 2019 TA, Math & Statistics for Economics, Trinity College Dublin

SERVICE

Referee: Journal of Agriculture and Food Research

Other: UC Davis ARE DEI Committee, Grad School Application Mentor

BLOG ARTICLES

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

SKILLS AND LANGUAGES

Programming: Python, R, Stata, SQL/MySQL

Tools: AWS EC2/RDS, Git, Unix, Markdown, Shiny, SurveyCTO

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

Statistical Methods: Machine Learning, Econometrics, Regression Analysis, Causal Inference