Orville Dustin Mondal

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Education

The Pennsylvania State University
PhD in Economics — *August 2017 - June 2023 (Expected)*

Delhi School of Economics, University of Delhi
M.A. in Economics — *May 2015*

University of Delhi
B.A. in Economics — *May 2013*

Experience

Graduate Teaching Assistant, The Pennsylvania State University — Aug 2017 - May 2022

- Teaching assistant for undergraduate courses in microeconomics (Fall 2017-Fall 2018).
- Teaching assistant for econometrics: PhD (Spring 2019), Masters (Fall 2019- Fall 2020, Fall 2021, Spring 2022)

Research Assistant, The Pennsylvania State University — Jan - May 2021

- Created code base to analyze impact of an experimental intervention on uptake of mobile money usage among migrant workers in Bangladesh using Julia.
- Prototyped a Bayesian method to determine potential future sites on which to conduct an experiment to test the impact of improved access to mobile money among migrant workers on remittances sent to a home household.

Risk Analyst, Credit Risk Oversight, American Express India Pvt. Ltd — June 2015- May 2016

- Conducted simulations of the effect of varying portfolio health on expected long term credit performance.
- Derived long term capital requirements for successful business operations.
- Involved in data analysis aimed at adjudging credit card portfolio risk for US and International Markets.

Projects

Bounding Treatment Effects in Experiments with Non-Compliance: The Role of Follow up Surveys | *Julia, Stata*

- Proposed new methods to estimate the impact of an experimental treatment using data from randomized trials.
- Proposed a model to explain why trial participants choose to accept or reject an offer of treatment.
- Designed estimators which uniquely exploit data from follow up surveys for non-complying participants.
- Applied proposed methods on data from the Job Training Partnership Act study in Julia.

Semiparametric Identification of Binary Choice Models with Misreported Outcomes (with Rui Wang) | *Julia*

- Proposes new methods to identify parameters of a binary choice model when outcome data is potentially misreported.
- Analyzed theoretical properties of the proposed identified sets of parameters.
- Described practical estimation routines to tractably implement proposed methods.
- Designed and implemented simulation study to empirically validate estimation strategy.

Surrogate Welfare Maximization and Treatment Assignment Rules | *Julia, R*

- Proposed a class of treatment assignment rules which assign applicants to one of several treatments.
- Focused on individualized assignment rules which depend on applicant specific characteristics.
- Analyzed theoretical and empirical properties of proposed methods.
- Estimated assignment rules as solutions to constrained optimization problems in Julia using data from a randomized trial.

In Progress

Optimizing Experimental Site Selection for External Validity: Theory and an Application to Mobile Money in South Asia (with Michael Gechter, Keisuke Hirano, Jean Lee, Mahreen Mahmud, Jonathan Morduch, Saravana Ravindran, Abu Shonchoy) | *Julia, R, Stata*

- Proposes a model to rationalize migrant workers' decision to remit money to their family at home using either traditional means or a newer digital transfer option.
- Estimated parameters of the model on data from a field experiment in Bangladesh using classical minimum distance.
- Designed site selection procedure to choose sites for future field study in Bangladesh, India and Pakistan.

Awards

• Pennsylvania State University Graduate Research assistantship award Fall 2017-Spring 2023 • Dr Balvir and Ranjana Singh Memorial Scholarship (2015) • Krishna Raj Summer Fellowship (2014) • Dr. Manmohan Singh Fellowship (2013)

Technical Skills

- **Languages:** Julia, Matlab, Stata, R
- **Tools:** Econometrics (discrete choice models, parametric/non-parametric regression), Causal Inference (instrumental variable methods, partial identification methods, difference in differences, regression discontinuity design), Numerical Optimization Methods (linear/non-linear programming), structural modeling