

DEEPSHIKHA BATHEJA

POSTDOCTORAL FELLOW
ONE HEALTH TRUST (FORMERLY CDDEP)

CONTACT INFORMATION

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CDDEP ADDRESS

Obeya Pulse, First Floor, 7/1, Halasur Road
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EDUCATION

University of California, Riverside: PhD in Economics (2014 to 2020)

Thesis advisors: Anil Deolalikar, Sarojini Hirshleifer

TERI University: M.Sc. Economics, specialization in Environmental & Resource Economics (2010-2012)

Thesis advisors: Badal Mukhopadhyay, Soumendu Sarkar

University of Delhi: B.A. (Hons.) Economics (2006 to 2009)

FIELDS

Fields: Development and Labor Economics; Field Experiments

Research Interests: economics of gender, health, firm and employee productivity, human capital accumulation, environment, economics of organization

GRANTS, HONORS AND FELLOWSHIPS

2022: British Academy Global Convening Award (*1.8 million USD*) (Co-Investigator with Sonia Lewycka, Phaik Yeong Cheah and others)

MSD Fellowship for Global Health (*35,000 USD*) (with Giridara Gopal & Ramanan Laxminarayan)

2021: MSD Fellowship for Global Health (*29,831 USD*) (with Jyoti Joshi & Ramanan Laxminarayan)

China-India Visiting Scholars (CIVS) Fellowship- Ashoka University (*4,752 USD*)

2020: JPAL's PPE Initiative Fund (*45,500 USD*) (with Sarojini Hirshleifer and Opinder Kaur)

2019: Dissertation Year Program Fellowship (*15,400 USD*)

2018: Small Projects Grant, International Growth Center (IGC) (*25,000 GBP*)

BLUM Initiative Grant, UC Riverside (*4,000 USD*)

2014: Dean's Distinguished Fellowship Award, UC Riverside (until 2019)

ACADEMIC PAPERS: ECONOMICS

Working Papers

"Gender Peer Effects in the Workplace: A Field Experiment in Indian Call Centers"

Featured in [World Bank Development Impact Blog](#), [Ideas for India](#), [IGC Blogpost](#) and [Hindustan Times](#)

Several theories suggest that gender integration in the workplace may have negative effects in gender-segregated societies. This paper presents the results of a randomized controlled trial on the effect of gender integration on work productivity. The study was implemented in call centers located in five Indian cities. A total of 765 employees were randomized to either mixed gender teams (30-50% female peers) or control groups of same gender teams. I find precisely estimated zero effects on both productivity (intensive margin) and share of days worked during the study period (extensive margin) of being assigned to a mixed gender team. However, there is an overall increase in the secondary outcome of peer monitoring and team support for women assigned to mixed gender teams relative to the control team. For male employees, I find that conditional on being assigned to mixed gender teams, men with progressive gender attitudes have higher productivity than men with regressive gender attitude. There is an overall increase in the secondary outcomes of knowledge sharing, dating and comfort with the opposite gender for male employees in mixed gender teams, relative to all male teams.

Best Paper Award, Women in the Economy Workshop: 3rd Annual Workshop, Indian Statistical Institute

“Effect of Co-residence with Parents-in-law on Female Labor Force Participation” (with Abhik Banerji and Anil Deolalikar)

We study the impact of co-residence with mother-in-law and father-in-law on woman’s labor force participation in India. We use two rounds of IHDS panel data for the analysis taking death of healthy parent-in-law as the exogenous source of variation. Our results show that co-residence with father-in-law has a significantly negative effect on women’s labor supply. Depending on the specification, losing one’s father-in-law increases the labor force participation of women by approximately 9 to 12 percentage points, compared to a similar household where the father-in-law still co-resides in the second round. This effect is driven by increased autonomy for women, by 3 to 3.3 percentage points, after the death of father-in-law.

“COVID-19 and Women’s Age at Marriage: New Evidence from India” (with Abhik Banerjee, Ramanan Laxminarayan and Arindam Nandi)

The COVID-19 pandemic has been hypothesized to have influenced household decision making on the age of marriage. Using data from the National Family Health Survey of 2019-2021 of India (NFHS-5), we explore how COVID-19 impacted age at marriage for women using household and district fixed effects models and matching methods. Contingent on the model and specification, we find a significant increase in age at marriage for women who got married after the onset of the pandemic compared to those married before the pandemic, by 0.76 to 3.67 years, approximately a 3.6% to 19.5% increase from pre-COVID-19 levels.

“More than particulate matter matters: Pollution and productivity in Indian call centers” (with Sarojini Hirshleifer and Jamie T. Mullins)

We measure the impact of three components of air pollution on both the extensive and intensive margins of labor productivity using individual-level daily data from call centers in five Indian cities. A one standard deviation increase in PM_{2.5}, a pollutant that has been widely studied in the literature, decreases intensive margin productivity by 0.14σ . The equivalent impacts for carbon monoxide and ozone, however, are 0.15σ and $.09\sigma$, respectively. Thus, PM_{2.5} only captures a proportion of the damages attributable to these three pollutants.

“Does Signalling College Quality Matter? An Experimental Study in India” (with Sarojini Hirshleifer and Opinder Kaur)

We measure the impact of two main signals of tertiary-level human capital accumulation, college quality and certification, on the first stage of the hiring process in India. We send 18,000 resumes to 1500 job postings for recent engineering graduates across eight major cities. We find no impact on call-backs of having graduated from a mid-tier college ranked in the top 300 relative to one outside of the top 1000. There is also no impact of scoring in the highest as opposed to the lowest quartile of a widely-used certification test. We do not find evidence of gender discrimination or heterogeneity by company characteristics.

“COVID-19 and Mental Health: Experimental Evidence from India” (with Jere Behrman, Ramanan Laxminarayan, Subha Mani, and Arindam Nandi)

The COVID-19 pandemic has increased mental health concerns around the world. While there are several papers linking COVID-19 to mental health, causal evidence on the topic remains limited. In this paper, we study the impacts of COVID-19 on mental health using priming techniques. We exogenously vary the salience of COVID-19 crisis among rural households in India to examine the effect of the pandemic on mental health. We find that COVID-19 has increased anxiety and depression scores by 0.087 and 0.13

standard deviations, respectively. These findings call for greater investments in large-scale accessible mental health interventions in rural India.

“Birth Order, Gender and Learning Outcomes in India” (with Jere Behrman, Ramanan Laxminarayan, Subha Mani, and Arindam Nandi)

Family size and birth order are crucial inputs in determining child quality, including learning and other educational outcomes. Apart from birth order, gender is salient in India and other traditional countries. We study the impact of birth order and gender composition of siblings on learning outcomes using a unique cross-sectional data-set of 20,000 children located in two large states of India. Depending on model and specification, we find that learning losses increase sharply at higher birth orders for all our outcomes of reading in native language, English language, Mathematics, relative grade attainment and non-cognitive outcomes of self-esteem and self-efficacy.

ACADEMIC PAPERS: HEALTH POLICY

Peer Reviewed Published Research

“Values and preferences of the general population in Indonesia in relation to rapid COVID-19 antigen self-tests: A cross-sectional survey” published in *Tropical Medicine & International Health*. 2022 (with Thomas, Caroline, Sonjelle Shilton, Catherine Thomas, Srishti Goel, Claudius Mone Iye, Elena Ivanova Reipold, and Guillermo Z. Martínez-Pérez)

“Self-Testing for COVID-19 in São Paulo, Brazil: Results of a Population-Based Values and Attitudes Survey” published in *BMC Infectious Diseases* 2022 (with Guillermo Z. Martínez-Pérez, Sonjelle Shilton, Maíra Saruê, Hilton Cesario, Abhik Banerji, João Paulo Cunha et al.)

“Are Kenyans Likely to Use COVID-19 Self-Testing Kits? Results From a Cross-Sectional Survey” published in *International Journal of Public Health*. 2022 (with Manguro, G., Shilton, S., Omenda, S., Owira, P., Banerji, A., Chabeda, S.V., Temmerman, M., Jako, W., Ndungu, J. and Luchters, S)

Working Papers

“Role of Oxygen Concentrators in Alleviating the Oxygen Crisis in India” (with Ajay Nair, Sharon Buteau, Neetha Joy and Vinith Kurian) [medRxiv](#)

“A Qualitative Study on Non-prescription Sale of Antibiotics in Pharmacies of New Delhi: Perspectives from Pharmacists, Dispensers and Consumers” (with Jyoti Joshi, Anjana Sankhil Lamkang and Ramanan Laxminarayan) *Submitted*

“People's Willingness to Use COVID-19 Self-Testing in Nigeria: A Cross-Sectional Survey” (with Morenike Oluwatoyin Folayan, Sonjelle Shilton, Veronica Undelikwo, Oluwatoyin Alaba, Ranmilowo Amusan, Mustapha Ibrahim, Pamela Ogbozor et al.) [SSRN](#) *Submitted*

“SARS-CoV-2 Self-Testing in Peru: A Survey of Values and Acceptability of the General Population” (with Cesar Carcamo, Sonjelle Shilton, Patricia Silvia Mallma Salazar, Paola Pflucker Oses, Paola Alejandra Torres Slimming, Abhik Banerji, Elena Ivanova Reipold and Guillermo Z. Martínez-Pérez) *Submitted*

“Values Relating to COVID-19 Self-Testing Among the Urban and Rural South African General Population: A Cross-Sectional Survey” (with Amanda N. Brumwell, Gbotemi B. Babatunde, Michael W. Wilson, Karl le Roux, Monique M. Marks, Jamila K. Adam, Elena Ivanova, Srishti Goel, Sonjelle Shilton and Guillermo Z. Martínez-Pérez) *Submitted*

“General Population’s Values and Attitudes of SARS-Cov-2 Self-Testing: A Cross-Sectional Survey in the Philippines” (with Guillermo Martínez-Pérez, Sonjelle Shilton, Joy Daguiso, Denis Cruz, Srishti Goel, Elena Ivanova Reipold and Danvic Rosadiño) *Submitted*

“Public’s Values and Attitudes towards SARS-CoV-2 Self-Testing as a COVID-19 Case Detection Tool: Findings from a multi-State Survey in India” (with Sonjelle Shilton, Tripti Sharma, Guillermo Z. Martínez-Pérez, Gangotri Dash, Adesh Sah, Rakesh Singh, Srishti Goel, Deepshikha Batheja, Elena Ivanova Reipold) *Submitted*

“The educational and health impact of COVID-19 on children with special needs: A systematic review” (with Srishti Goel, Ramanan Laxminarayan, Jyoti Joshi, Phu Duong, Dominick Panarello and Vaishali Parab)

Works in Progress

“Understanding the Value of Biobanking using Conjoint Analysis” (with Ramanan Laxminarayan, Warren Fransman and Srishti Goel)

“Impact of COVID-19 on Children with Disabilities in India: A Mixed Method Study” (with Jyoti Joshi and Ramanan Laxminarayan)

“Mental Health of Working Women in China and India: A Mixed Method Study” (with Dong Zhou, Srishti Goel and Rishi Bhagawati)

“Drivers of Routine Childhood Immunization in India” (with Abhik Banerji, Giridara Gopal, Susan Manoff and Aditi Sapre)

“Socio-economic Drivers of COVID-19 Vaccine Hesitancy in India: Evidence from a Mixed Method Study” (with Abhik Banerji, Rishi Bhagawati, Giridara Gopal, Susan Manoff and Aditi Sapre)

Cohort Profile: The Chikkaballapur One Health Agenda Cohort (COHAC) Study (with Giridara Gopal and Ramanan Laxminarayan)

OTHER PUBLICATIONS AND POLICY REPORTS

“Demographic Change and Implications for Human Development Outcomes and Strategies in Tamil Nadu.” World Bank Background Paper, 2022

“Rajasthan 2040: Towards Gender Inclusive Growth.” World Bank, Background Paper, 2022

“Efficiency Comparison of Bus Operators in Delhi” published in *Journal of Transport Literature*, Volume 9, Number 1, January 2015.

INVITED PRESENTATIONS AND CONFERENCES

2022: Behavioral Research in Economics Workshop, BREW-ESA, IIM Bangalore, India

Royal Economic Society Annual Conference at Ashoka University, New Delhi, India

2nd Annual IHOPE Conference, L.V. Prasad Eye Institute, Hyderabad, India

The INAMRSS/CeBIL Copenhagen AMR Workshop: Solutions to AMR from the Social Sciences, University of Copenhagen, Denmark

2021: Women in the Economy Workshop at Indian Statistical Institute, Delhi

Women in the Workforce at IGC India webinar

16th Annual Conference on Economic Growth and Development at Indian Statistical Institute, Delhi

2020: Pacific Conference for Development Economics (PacDev), University of California, Berkeley

2019: UC Irvine Applied Brownbag

- 2018: Indian Society of Labor Economics (ISLE) at Indira Gandhi Institute of Development Research
UCR Econometrics Brownbag on power calculations in RCTs
UCR Applied Brownbag on pre-analysis plan of job market RCT paper
- 2017: The Ronald Coase Institute
International Association for Feminist Economics (IAFFE)
Association for Public Policy Analysis and Management (APPAM) Regional Student Conference
- 2014: National Conference for the Indian Association for Women's Studies

NEWSPAPER AND POPULAR PRESS

- "Antimicrobial Resistance and Gender" on CDDEP's Blog, March 08, 2022 (with Srishti Goel)
- "Does the gender of your co-worker matter? Evidence from call centres" in Ideas for India, October 05, 2020
- "The ripple effect of gender inclusivity on India's economy" in the Hindustan Times, August 02, 2021
- "Women must 'lean in' to be taken seriously in the political sphere" in the Hindustan Times, April 30, 2014 (with Devaki Jain)
- "Women's voices in India-China talks" in Gateway House Indian Council on Global Relations, Nov 8, 2013 (with Devaki Jain)
- "Need progressive masculinities to get feminist view" in *The Tribune*, August 23, 2012
- "Strengthening SME sector will open up a new strategy of broad-based, fast growth," *The Economic Times*, Sep 22, 2012 (with Devaki Jain)

OTHER EMPLOYMENT

Teaching Experience at University of California, Riverside (August 2015-March 2020)

- As Instructor:
 - Economic Development: Theory and Policy (Summer 2016)
 - Women's Labor and the Economy (Fall 2017)
- As Teaching Assistant:
 - Introduction to Microeconomics (5 times)
 - Introduction to Macroeconomics (3 times)

Research Assistant to Dr. Joseph Cummins, Assistant Professor at UC Riverside (July 2017 to September 2017)

- Replicated published economics papers which use synthetic control methodology

Research Assistant to Dr. Devaki Jain, Honorary Fellow at Oxford University (January 2012 to June 2014)

- Co-authored several conference papers on the role of women in India, which were presented in National Workshop: Center for Women's Development Studies, Gendering a state plan: Government of Karnataka, Global Bihar Summit: Government of Bihar

PROFESSIONAL SERVICE

Reviewer

- Journal of Labor Research, Journal of Quantitative Economics, Pakistan Journal of Applied Economics, PLOS Global Public Health

Service Responsibility

- Served as interviewer for the M.Sc. Economics program at TERI University, New Delhi (2021)

REFERENCES

Anil Deolalikar Founding Dean, Public Policy UC Riverside anil.deolalikar@ucr.edu	Sarojini Hirshleifer Assistant Professor of Economics UC Riverside sarojini.hirshleifer@ucr.edu	Chirantan Chatterjee Reader (tenured faculty) in Economics University of Sussex Business School C.Chatterjee@sussex.ac.uk
Arindam Nandi Visiting Fellow, OHT Associate II, Population Council anandi@popcouncil.org	Subha Mani Associate Professor of Economics Fordham University smani@fordham.edu	