VAISHNAVI SURENDRA

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Current Employment

Postdoctoral Researcher, Precision Development (PxD)

2021 -

At PxD, I lead innovative research projects on digital information services to enhance farmers' climate resilience and gender inclusivity in India, utilizing my skills in research design, quantitative and qualitative data analysis, stakeholder engagement, and fundraising to drive impactful solutions.

Education

Ph.D., Agricultural and Resource Economics, <i>University of California, Berkeley</i>	2020
M.Sc., Economics, London School of Economics	2012
M.A. (5 year integrated undergraduate) Economics, Indian Institute of Technology Madras	2011

Fields

PRIMARY: Development Economics, Agriculture and Natural Resource Economics

SECONDARY: Environmental Economics

Publications

"Relief from Usury: Impact of a Self-Help Group Intervention in Rural India,"

with Vivian Hoffmann, Vijayendra Rao, Upamanyu Datta.

Journal of Development Economics, 2021, Vol 148. [Paper Available Here]

Abstract. Provision of low-cost credit to the poor through self-help groups (SHGs) has been embraced as a key poverty-reduction strategy in developing countries, but evidence on the impact of this approach is thin. Using a randomized program rollout over 180 panchayats, we evaluate the impact of a government-led SHG initiative in the Indian state of Bihar. Two years after the start of the program, we find a dramatic increase in SHG membership, borrowing from SHGs, and a corresponding decline in the use of informal credit. Fewer informal lenders are operating in treatment villages, and those who do charge lower interest rates. While these credit market impacts could lead to substantial improvements in economic well-being over time, the short-run impact of the program on such outcomes is modest.

Working Papers

"Weather Forecasts and Farmers' Beliefs after False Alarms,"

with Shawn Cole, Tomoko Harigaya. [Paper Available Here]

Abstract. Weather-induced risk reduces farmers' incomes, and climate change is increasing such risk. One promising intervention to mitigate risk is high-quality, probabilistic, short-to-medium-range weather forecasts, which predict weather between zero and fifteen days ahead. For forecasts to be effective, however, farmers have to understand and act on them. This paper evaluates how farmers use probabilistic forecasts and form beliefs about their accuracy in a lab-in-the-field experiment. In scenarios that mimic real-world decision making, we find that farmers update their beliefs about the (in)accuracy of forecasts following false alarms, where forecasts erroneously predict events. Farmers who experience false alarms perform worse in subsequent rounds of incentivized experimental games, and report a lower willingness-to-pay for a real-world weather forecast service in an incentive-compatible Becker-DeGroot-Marschak elicitation. Light-touch interventions to improve probability comprehension and make climate change salient have limited impact on farmer decision-making, with positive effects that are mitigated by the incidence of false alarms.

"Risk Sharing, Commitment Constraints, and Self-Help Groups,"

with Orazio Attanasio, Anjini Kochar, Aprajit Mahajan. *NBER Working Paper No. 31245.* [Paper Available Here]

Abstract. Evaluations of group savings and lending programs have largely focused on average impacts, rather than distributional impacts — finding modest effects on long-term economic well-being. In this paper, we exploit the randomized roll-out of a self-help group lending program in rural Bihar, India (Hoffmann et al., 2021) to demonstrate that well-functioning groups facilitate risk-sharing within rural communities. We find no impact of the program on risk-sharing, measured as a reduction in the variance of consumption growth, in the aggregate. However, the program significantly improves risk-sharing in regions where it had greater institutional capacity and was better implemented. Building on our theoretical framework, we provide evidence of a specific channel of impact: program quality and pre-existing scale improve the quality and functioning of groups, which in turn increase the insurance value of the program to communities.

Working Papers

"The Moneylender as Middleman: Formal Credit Supply and Informal Loans in Rural India"

[Paper Available Here]

Abstract. A majority of household borrowing in developing countries is from informal lenders. In this paper, I exploit exogenous weather-induced shocks to household credit demand and variation in bank credit supply to demonstrate that informal moneylenders rely on bank credit to ease lending capital constraints in rural India. I document that informal moneylenders use loans from banks as lending capital, and they increase borrowing from banks following weather-induced increases in household credit demand. Moreover, following an equivalent demand shock, districts with higher predicted bank credit supply see larger increases in household borrowing from moneylenders than those with lower predicted bank credit supply â driven by changes in moneylender supply rather than in household demand for credit overall. These results help explain the persistence of informal credit since they indicate that, rather than competing with informal moneylenders, banks effectively collaborate with them.

"Self-Help Groups and Women's Employment in Rural India" [Paper Available Here]

Abstract. National and state governments in India have relied on womenâs Self-Help Groups (SHGs) to provide access to low-cost credit and savings with the dual intent of financial inclusion and women's empowerment. I focus on one such SHG initiative in the state of Bihar, Jeevika, and exploit the randomized roll-out of the program to evaluate its impact on womenâs labor supply. I find that the program had mixed effects across caste categories. Women from more privileged households increased their labor supply, while both women and men from disadvantaged households decreased their labor supply. The decline in labor supply among disadvantaged households is driven by reduced participation in agricultural wage labor, and is associated with an increase in agricultural labor wage rates. These results suggest that better access to finance reduces the need to sell labor as a coping mechanism for women from more vulnerable households; while allowing women from privileged households to increase their labor force participation in more 'suitable' occupations.

Research in Progress

"Information Aggregation and Dissemination among Community Mobilizers: women and Digital Tools in Gujarat, India" (with Surili Sheth)

"Women's Time Use and Intra-Household Dynamics in Rural India" (with Surili Sheth)

"Citizen Science and Weather Information"

Media and Public Outreach

Blog: "Customized Weather Forecasts for Improved Farmer Decision Making"

Blog: "Brewing better weather services for Indian coffee farmers"

Blog: "Leveraging Women's Groups to Bridge Gender-Specific Information Gaps in India"

Blog: "Facilitating risk-sharing through self-help groups in Bihar"

Blog: "Are moneylenders financial intermediaries?" Podcast: "Moneylenders and Formal Banking"

Talks	2024	AERE Summer Conference, Advances with Field Experiments* (London School of Eco-
(including		nomics), SEA Annual Meeting*
scheduled*)	2023	NBER-ISB Conference on Economic Policy and the Indian Economy, 18th Annual Conference
		on Economic Growth and Development (ISI-Delhi), SEA Annual Meeting, IFPRI (FNP Brown
		Bag Seminar), Workshop on Risk and Vulnerability (IIT Bombay)
	2022	ASSA Annual Meeting, PacDev (UC San Francisco), CSAE Conference (Oxford University),
	2022	NEUDC (Yale University), SEA Annual Meeting
	2021	PacDev (UC San Diego), NEUDC (Boston University), Webinar series in Finance and Devel-
	2021	opment (WEFIDEV), SEA Annual Meeting
	2020	Webinar series in Finance and Development (WEFIDEV), NEUDC (Dartmouth University),
	2020	Center on Food Security and the Environment, Stanford University
	2010	·
	2019	Summer School in Development Economics, Prato, Italy
	2017	NEUDC (Fletcher School at Tufts University) PacDev (UC Riverside)
Grants,	2022	J-PAL King Climate Action Initiative Pilot Grant (with Shawn Cole, Tomoko Harigaya)
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Fellowships,	2019	The Jean O. Lanjouw Memorial Endowment Grant, UC Berkeley Conference Travel Grant
and Awards	2018	ARE Travel Grant, IRLE Graduate Student Research Grant (with Manaswini Rao)
	2017	The Dennis J. Aigner Endowed Graduate Support Fund, Maharaj Kaul Memorial Research
		Travel Grant
	< 2016	UC Berkeley Graduate Division Summer Grant, Marjorie Deane Financial Journalism Founda-

tion Studentship (LSE), MITACS Globalink Scholarship (University of British Columbia)

Refereeing American Economic Journal: Economic Policy, Economic Development and Cultural Change, Empirical Economics, Journal of Development Economics, Journal of Human Resources, Journal of Public Economics, World Development, World Bank Economic Review Service and Organizing Committee, Graduate Student Summit for Diversity in Economics; Leadership Board, Women in Activities Economics at Berkeley; Intern Reporter, The Economic Times **Teaching** University of California, Berkeley (Graduate Student Instructor) Introduction to Economics 2015, 2017, 2018, 2019 Microeconomic Theory with Application to Natural Resources 2016, 2017 **Environmental Economics** 2016 University of California, Berkeley, Postdoctoral Scholar **Prior** 2020 - 2021 **Employment** The World Bank, Development Research Group, Consultant 2015 - 2019 Centre de Science Humaines, Research Assistant 2012 - 2014 English (fluent), Hindi (fluent), Tamil (native), Telugu (basic), R (proficient), Stata (proficient), Python (inter-Languages mediate), Dedoose (proficient) and **Software** Prof. Ethan Ligon Prof. Aprajit Mahajan References

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Agricultural & Resource Economics Agricultural & Resource Economics

UC Berkeley UC Berkeley

Prof. Shawn ColeDr. Vivian Hoffmannscole@hbs.eduV.Hoffmann@cgiar.orgHarvard Business SchoolIFPRI &

Harvard University Carleton University