

Bass Connections Indian Health Information Networks



BASS
CONNECTIONS

Information, Society & Culture

James Moody: Professor of Sociology, Director, DNAC
Monoj Mohanan: Associate Professor of Public Policy
Kendal Swanson: Masters Economics, Project Manager,
Mudit Kumar Singh: Fulbright Visiting Scholar, DNAC '2018
Joseph Quinn: Graduate Student, Sociology
Lavanya Singh: Masters of Public Policy
Felicia Chen: Computer Science & Economics '20
Pranav Ganapathy: Economics & Public Health



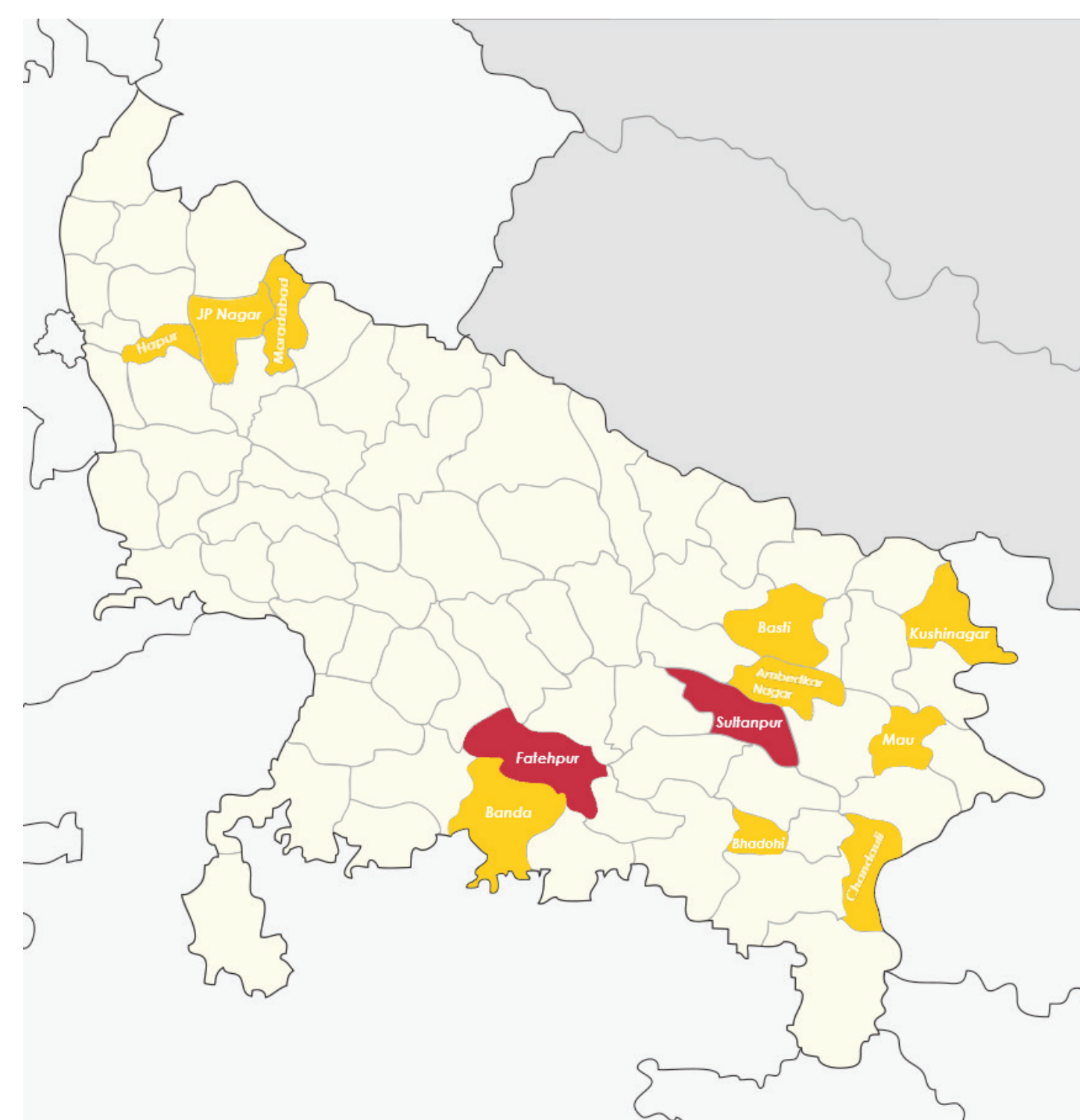
Introduction

In Uttar Pradesh, a state of over 200 million people in northern India, negative childhood health indicators have remained among the highest in the world despite multiple initiatives to improve them. Social accountability (SA) interventions, which seek to empower community members and facilitate monitoring of public healthcare providers and local officials, seem promising based on small-scale efficacy studies. Increased accountability should lead to improved provider performance and service delivery. How to best deliver SA interventions is an open question, and likely depends on the structure of social networks within villages. *Our goal is to evaluate the general effectiveness of a widespread SA intervention, peer effects on social accountability outcomes, and how any such effects are moderated by village network structure.*

Data & Design

The *Uttar Pradesh Health Systems Strengthening Project*, supported by the World Bank, implemented the largest social accountability intervention to date in 12 districts in May and June 2016 and selected two of the districts for robust impact evaluation.

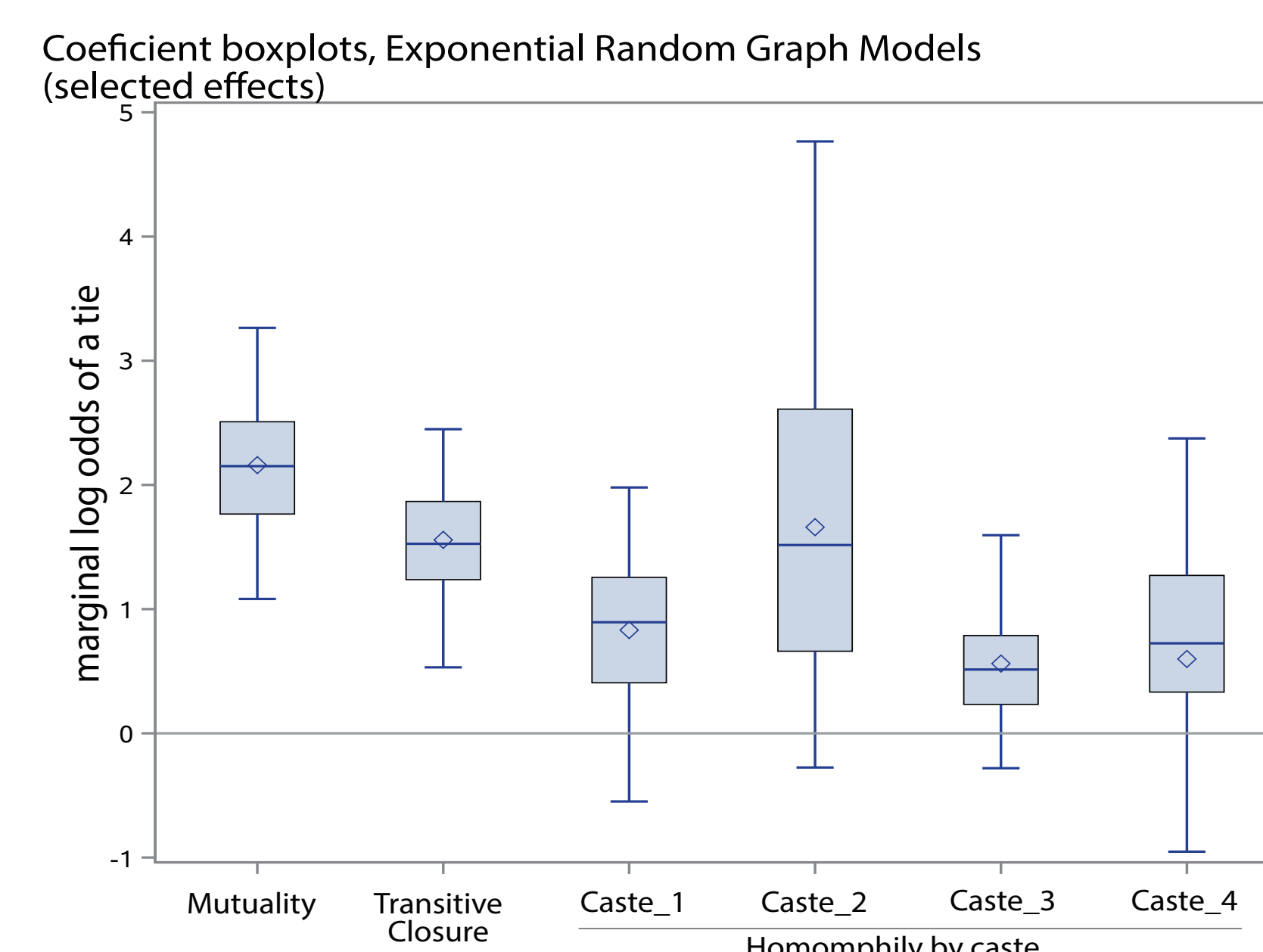
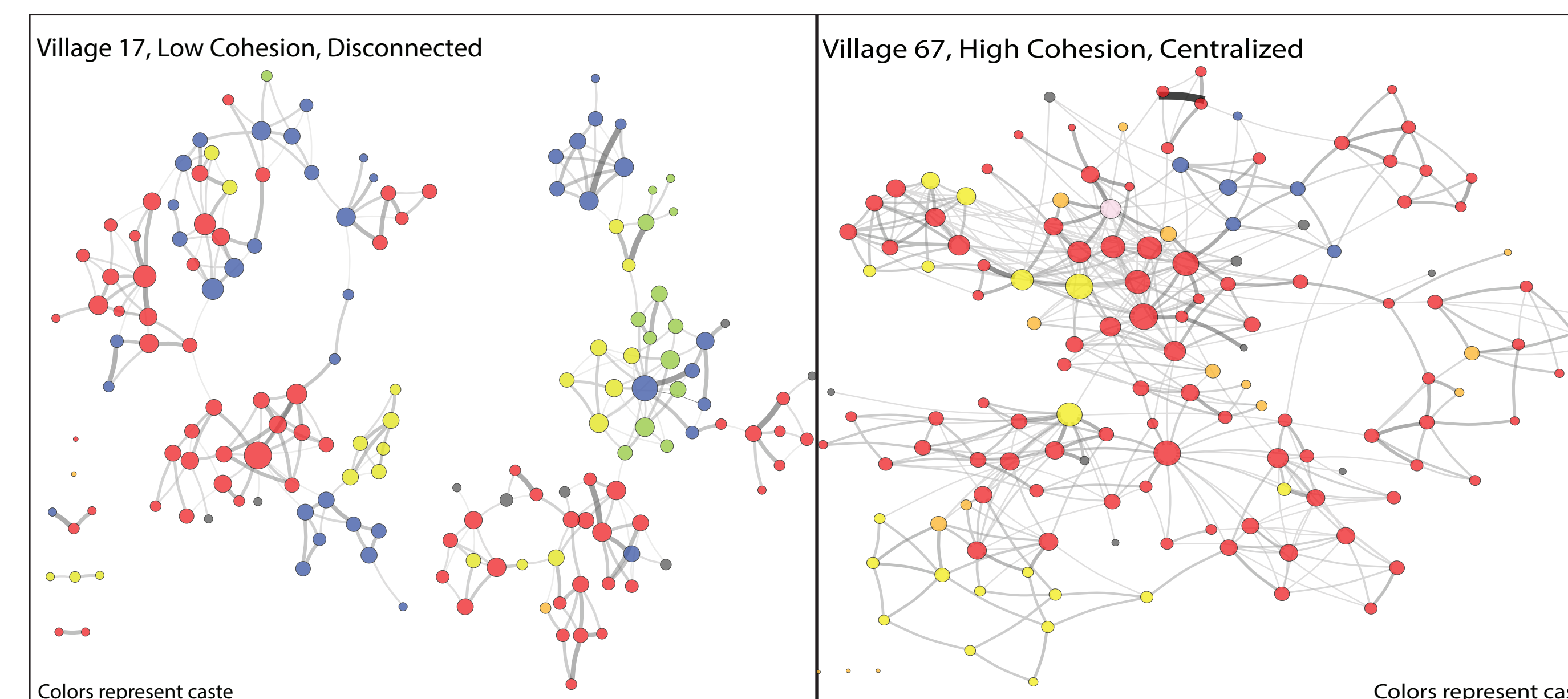
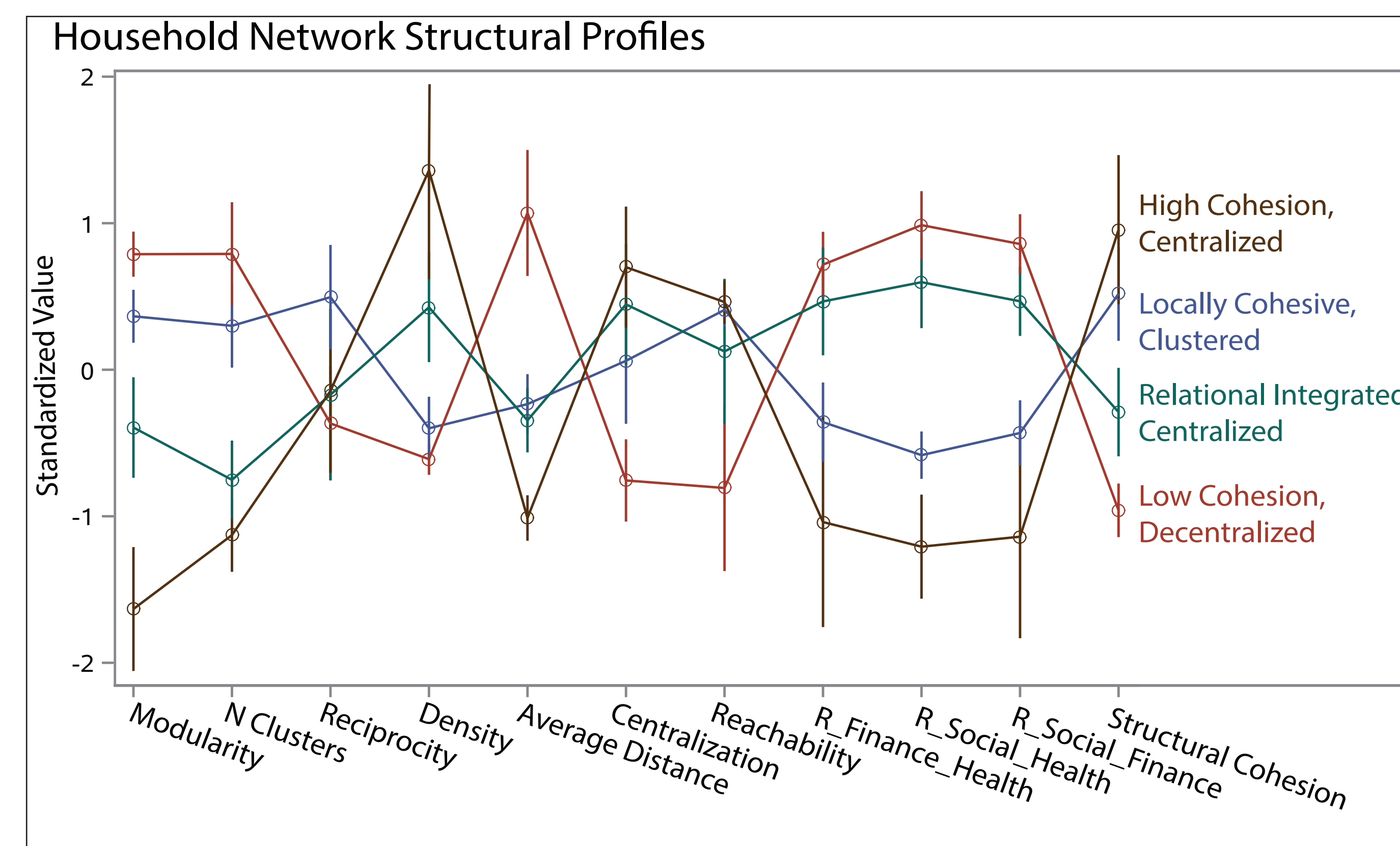
Our intervention includes (a) providing information to households about entitled benefits and about relative performance of health indicators in their village, and (b) facilitating meetings between community members and public service providers enabling households to redress grievances. We introduced network interventions testing the effectiveness of different information sources and peer effects within individuals' networks on participation behavior. This results in full community level network data on three types of relations (financial ties, health discussion ties, and friend/social ties) for 25607 households & 79249 people.



Village Social Organization

Household Network Structure

Villages differ significantly in how social relations are structured. As a first step in exploring the diversity of network structures, we clustered villages across a set of common cohesion, centralization and relational embeddedness, then used exponential random graph models to summarize generative features in each network.



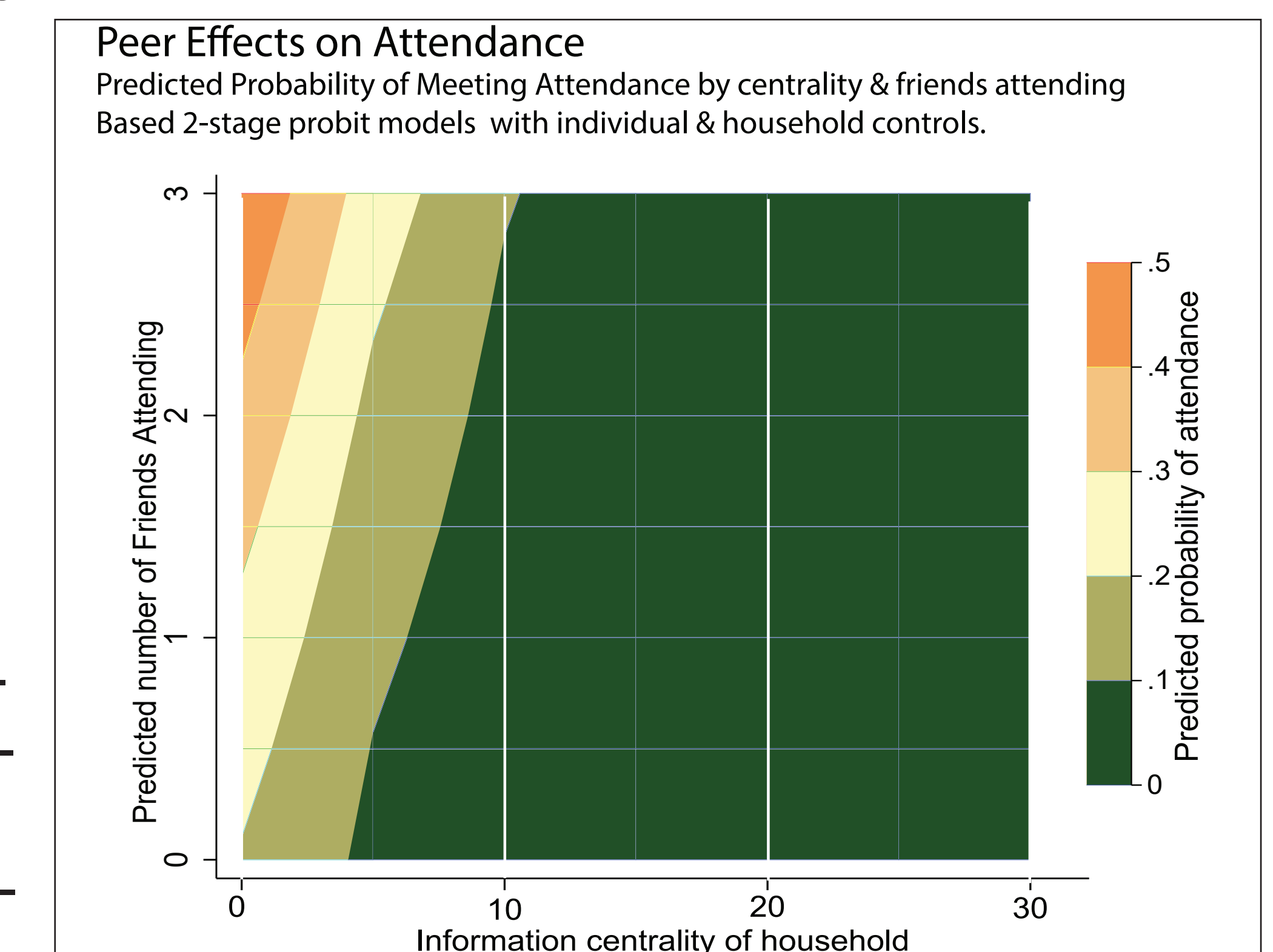
Village networks differ significantly in how relationally cohesive and centralized they are. Our networks tend to be highly clustered locally (high transitivity and reciprocity) and segregated by caste (positive coefficients).

Intervention Effectiveness

Participation Models

The social accountability frame argues that by helping citizens recognize what they are owed by their governments, they can be mobilized to act for positive change. Our intervention focused on providing people information about community health services and varying the sorts of incentives and knowledge about neighbor participation that each villager received.

To estimate network intervention effects we build a statistical model for attendance at health-related community meetings as a function of the number of peers who attend and position in the network varying how much knowledge each person has of their peers participation. Information centrality captures the speed and resilience with which hypothetical information put into the network by each person could spread to the rest of the network.



Preliminary results suggest a strong positive effect of the SA intervention, as well as positive interaction between the number of friends engaged and one's centrality, suggesting a strong peer effect (net of numerous controls).

Next Steps

We are in the field now collecting the second wave of participation and network data. These new data will allow us to model change in network structure as a function of the intervention. We will also use information from these networks to model potential information, disease and social support flows through the network.

Acknowledgments We would like to thank Bass Connections; The Duke Population Research Initiative (DuPRI); COHESIVE-India; The World Bank Strategic Impact Evaluation Fund (SIEF), which is funding the main SA evaluation; the Uttar Pradesh Health Systems Strengthening Project (UP-HSSP) and the Uttar Pradesh State Institute for Rural Development (SIRD) for implementing the SA interventions.

