Access to Banks and Household Resilience

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Introduction

This paper studies how **access to banking** affects **household resilience** to shocks. Shocks include for instance bad harvests or health emergencies.

- A large literature shows that households are **not sufficiently insured** in developing countries (Gertler & Gruber, 2002)
- In absence of insurance, households have to **apply costly strategies**, e.g. taking children out of school or reducing food consumption

Against this background, this paper asks the question whether access to banking can increase household resilience to shocks. In order to answer this question, I combine

1. Policy of the Reserve Bank of India (RBI)
   - Nationwide natural experiment (RDD)
2. Indian Human Development Survey (IHDS)
   - Nationally representative household-level survey

Policy

- Introduced in 2005 by RBI, intact until today
- Objective: Incentivize banks to open branches in underserved locations
- Policy: Banks increase their **chance to obtain license** for favored location by **strengthening presence** in underbanked districts

Underbanked Districts

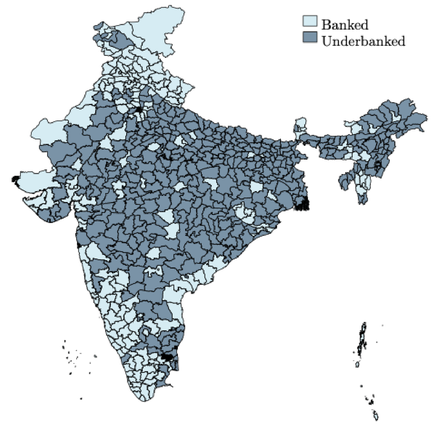
$$\underbrace{\frac{\text{Population}_{District}}{\#\text{ Bank Branches}_{District}}}_{\text{Underbanked/Treated}} > \frac{\text{Population}_{National}}{\#\text{ Bank Branches}_{National}}$$

- List of underbanked districts published 2006
- Only names, I reconstruct ratio

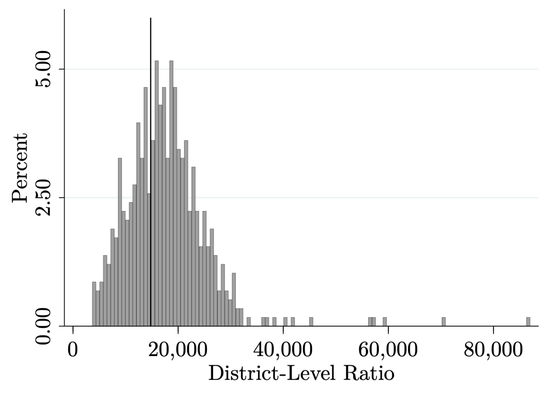
Regression Discontinuity Design

- **Forcing variable:** District-level ratio
- **Cutoff:** National-level ratio
- **Fuzzy**

375 Underbanked Districts

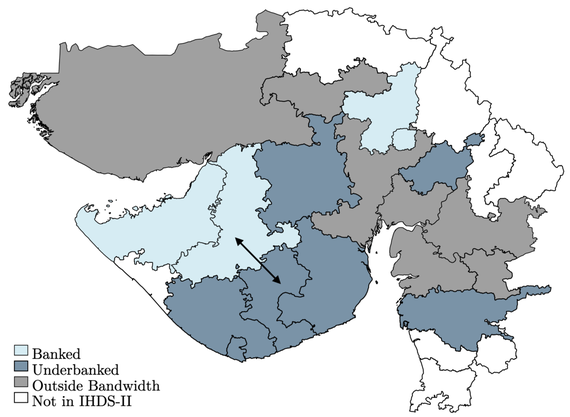


No Manipulation of Ratio



Regression Specification

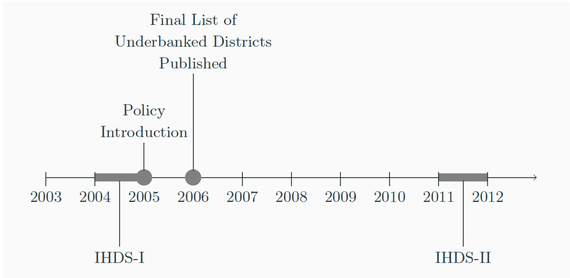
$$y_{hds,12} = \beta_0 + \beta_1 1[\text{Ratio}_{ds,06} - \text{Nat.Avg.}_{\cdot 06} \geq 0] + f(\text{Ratio}_{ds,06}) + \delta_1 X_{hds,05} + \delta_2 \Pi_{ds,pre} + \text{FE}_s + \epsilon_{hds}$$



Household-Level Data: Indian Human Development Survey (IHDS)

- Nationally representative
- Pre-Policy round: 2004/2005 IHDS-I
- Post-Policy round: 2011/2012 IHDS-II

Timeline

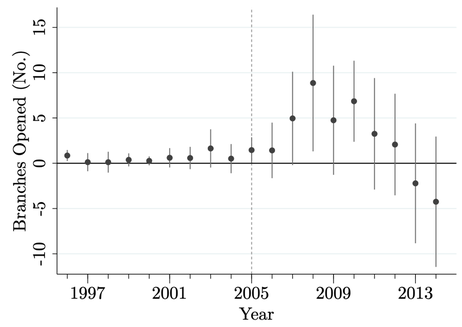


Main Results

1. Banks **open branches** due to the policy
2. Households take up **banking services in response to shocks**
3. Households that experience **droughts** show signs of **increased resilience**

Results

1. Banks open branches



2. Households Use Banking Services

	Any Bank Savings (All) (1)	Any Bank Loan (All) (2)	Any Bank Loan (Predicted) (3)	Largest Loan Credit Card (All) (4)
Treated	0.19*	0.04	0.12**	0.03*
	(0.10)	(0.05)	(0.05)	(0.01)
Mean	0.52	0.23	0.29	0.14
Mean Change (%)	35.89	19.66	42.88	189.57
First Stage	0.69	0.66	0.71	0.71
Bandwidth	3,023	2,370	3,273	4,031
Eff. Obs.	16,674	12,856	9,050	20,143
Obs.	36,786	36,785	18,324	37,053

(SE), $^*p < 0.1, ^{**}p < 0.05, ^{***}p < 0.01$. Predicted: Sample of households whose predicted propensity to borrow from a bank is in the 60th-100th percentile. Prediction based on pre-policy covariates such as consumption, assets, urban, etc.

3. Evidence of Increased Resilience

Drought shocks:

- Households take up banking services
- This translates into improved welfare
- Mechanism: temporary work migration
- Increase in informal, decrease in semi-formal loans
- No over-indebtedness

Next step: Idiosyncratic shocks