

# Financial Infrastructure and Micro-enterprise Performance: Evidence from India

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## Introduction

- Micro-enterprises hindered by credit constraints
- Micro-enterprises have high returns to capital
- Does financial infrastructure affect micro-enterprise performance?

## Primary Research Questions

- Do bank branch expansions affect micro-enterprise performance?
- Mechanisms through which banks affects micro-enterprises

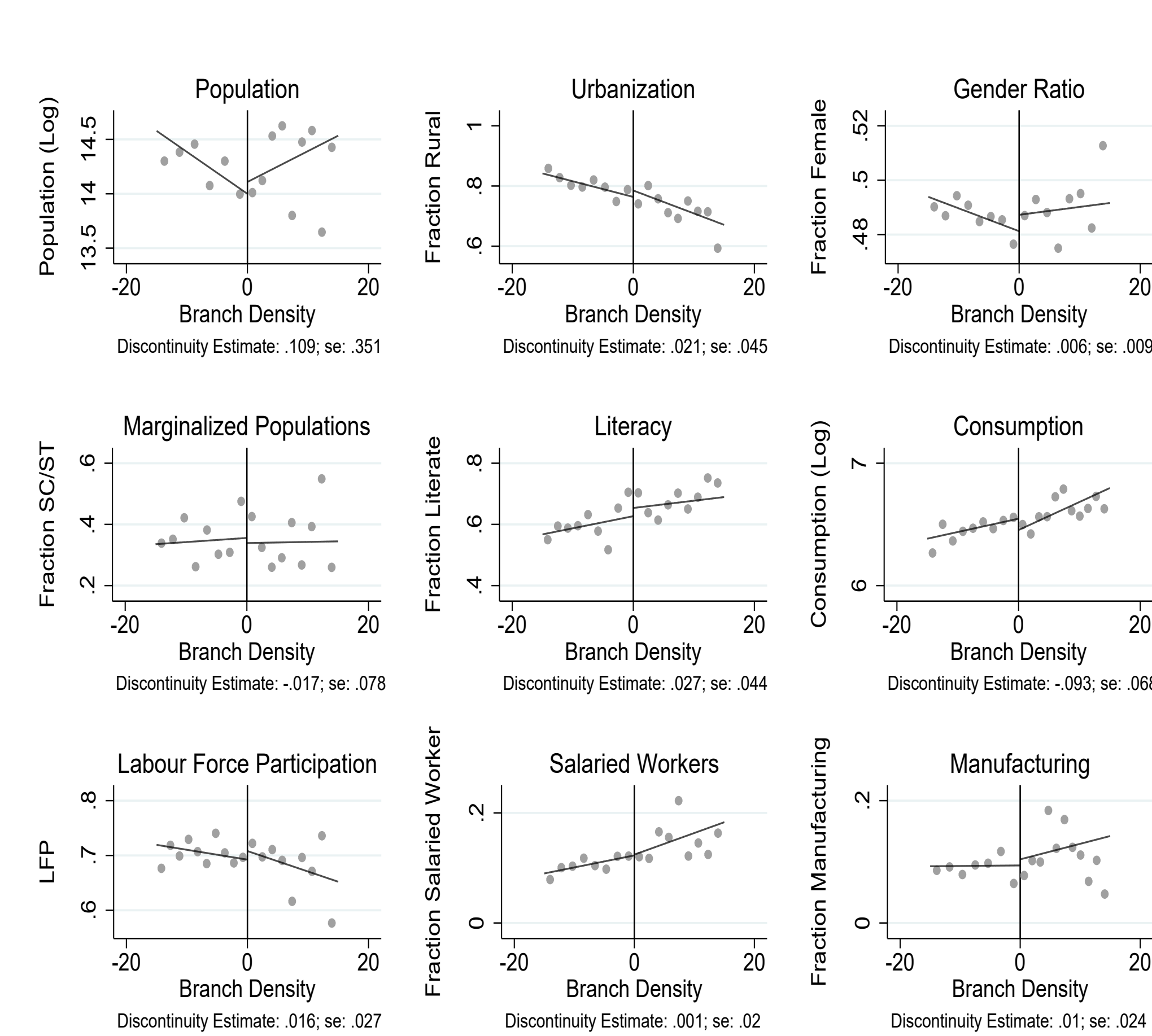
## Branch Expansion Policy in India

- Flexible branch expansion policy in 2006, incentivizing private banks to open branches in “underbanked” districts
- District is “underbanked” if district bank branch density *less* than national average
- 364 out of 559 districts “underbanked” in 2006
- National average serves as an arbitrary threshold
- Compare micro-enterprise outcomes in observationally equivalent districts, on either side of threshold

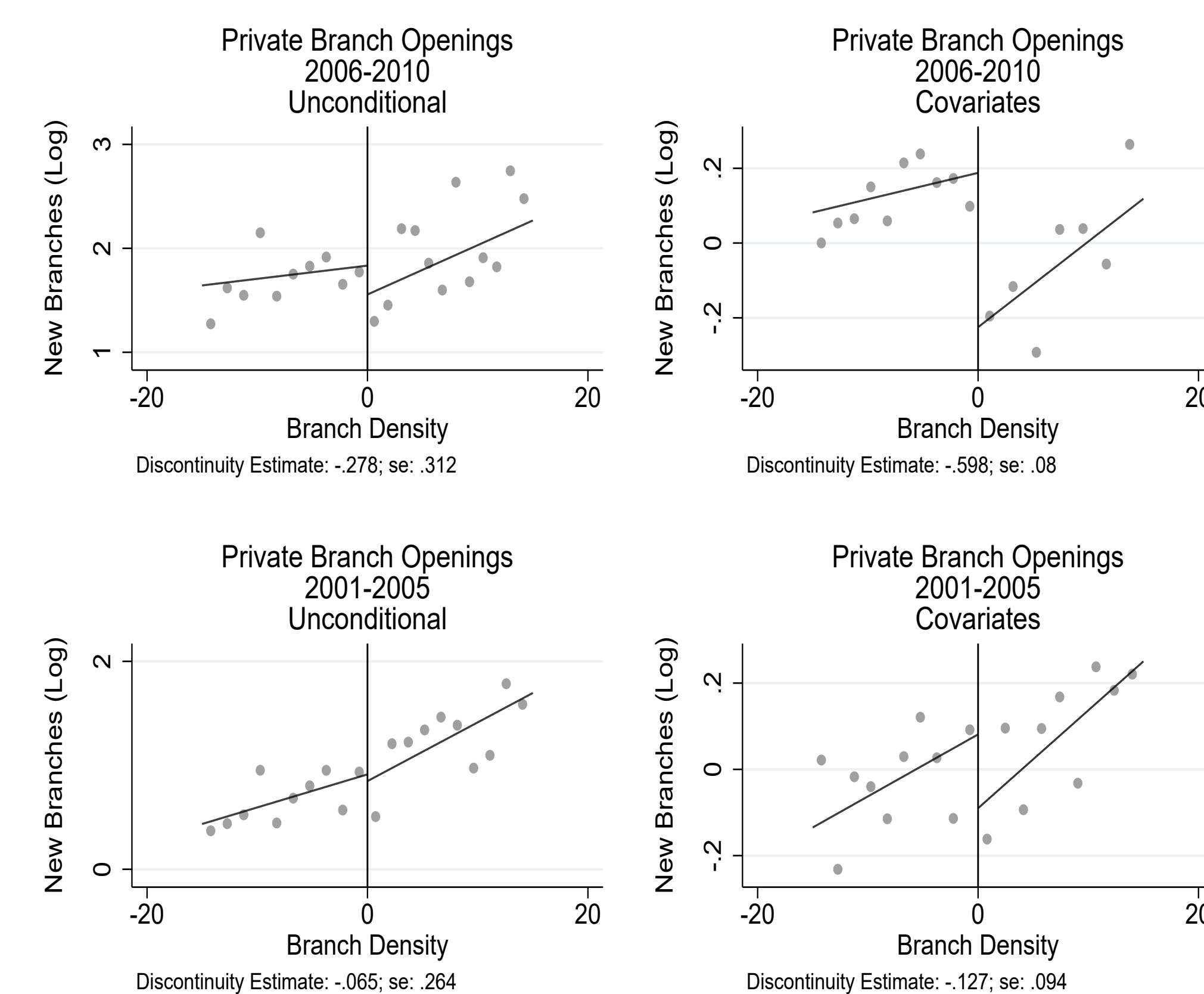
## Data

- Nationally representative survey in 2010 covering 300,000 informal micro-enterprises
- Data on enterprise expenses, revenues, capital, credit and workers
- 86% micro-enterprises are own-account enterprises
- 91% micro-enterprises have no outstanding credit

## Pre-Treatment Covariate Balance

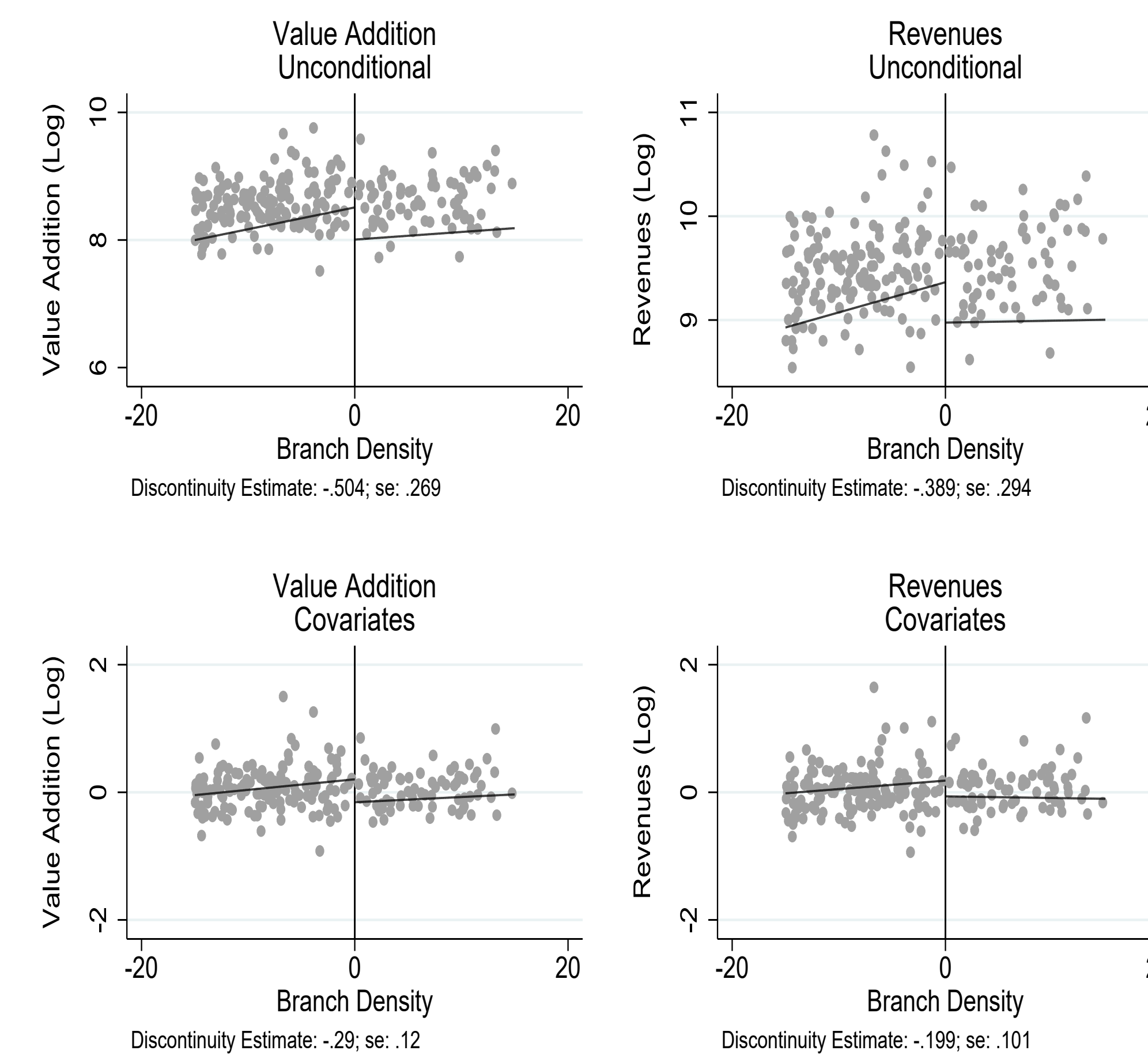


## Private Bank Branch Openings



- Underbanked regions see 5 additional private bank branches between 2006 and 2010
- No increase in private (government) bank branches between 2001-05 (2006-10)

## Micro-enterprise Performance



### Empirical specification:

$$Y_{ijds} = \alpha_s + \delta_j + \tau \text{Underbanked}_{ds} + f(\text{Runvar}_{ds}) + \psi f(\text{Runvar}_{ds}) \times \text{Underbanked}_{ds} + \lambda X_{ijds} + \epsilon_{ds}$$

- Bandwidth of 15 (231 districts)

Table 1: Branch Expansion and Micro-Enterprise Outcomes

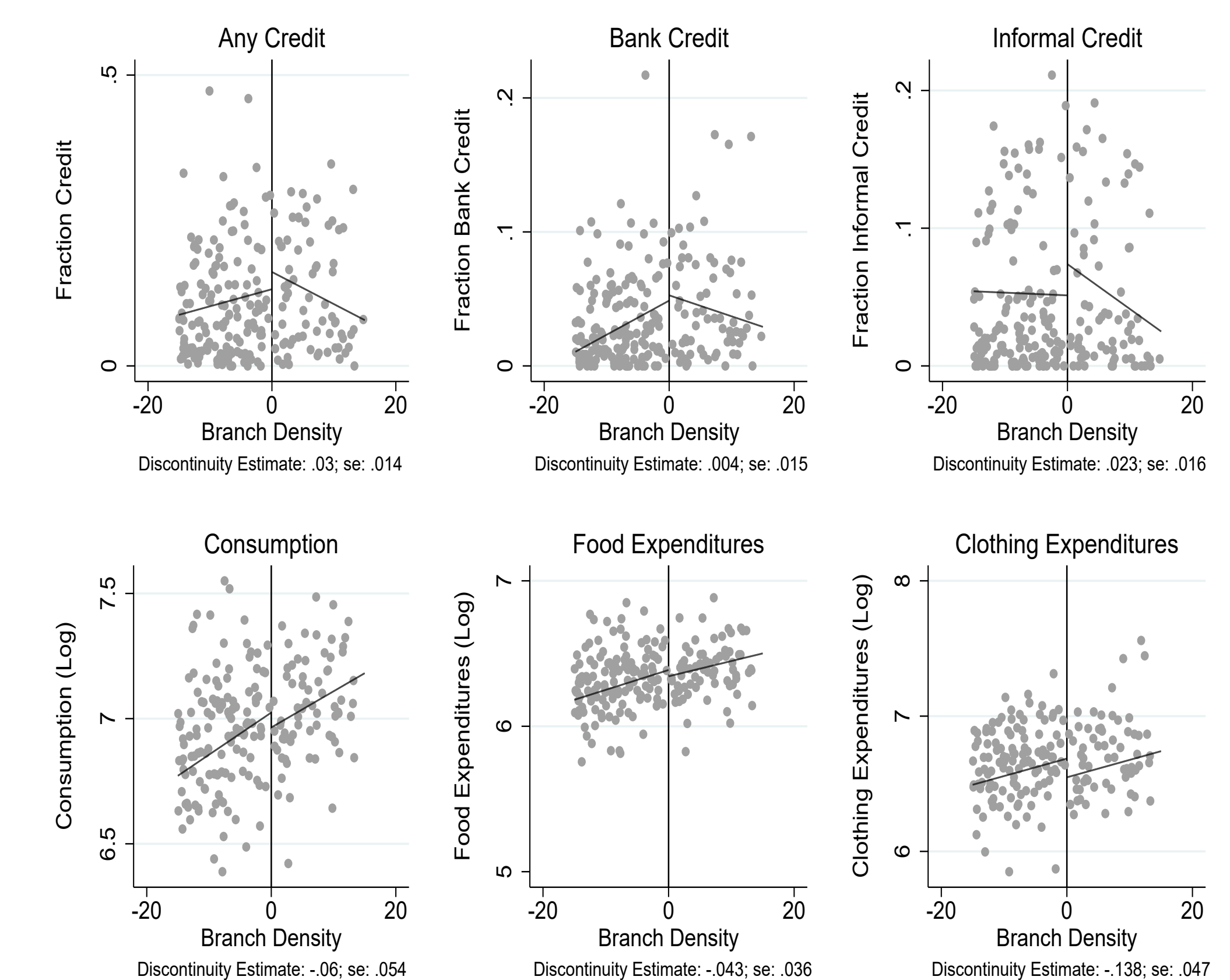
	(1)	(2)	(3)	(4)
	Value Addition (Log)		Revenues (Log)	
Underbanked	.328**	.227***	.257**	.183***
	(.138)	(.072)	(.115)	(.062)
Observations	133454	133439	133454	133439
R <sup>2</sup>	.35	.51	.48	.62
Control Mean	7505	7505	29192	29192
Covariates	N	Y	N	Y

Notes: \*10%, \*\*5%, and \*\*\*1%

- Value-addition (revenues) increase by 22% (18%) in underbanked regions
- Results robust to alternate bandwidths
- Treatment effect concentrated amongst manufacturing enterprises
- Limited impact on capital, employment and formalization

## Mechanisms

- Potential channels: access to credit, access to savings, aggregate demand and industry linkages
- No evidence of direct credit channel: branch expansion does not affect micro-enterprise credit
- Savings channel: increase in private bank deposits in underbanked regions
- Aggregate demand channel: household per capita expenditures increase in underbanked regions
- Consumption increase driven by higher clothing and food expenditures



## Conclusions

- Financial infrastructure has a large positive impact on micro-enterprise performance
- Positive impact driven by aggregate demand channel
- Results point to the pro-poor role played by banks