

Courts, Firms and Informality

Peter Neis - CERDI, Université Clermont Auvergne, CNRS, IRD

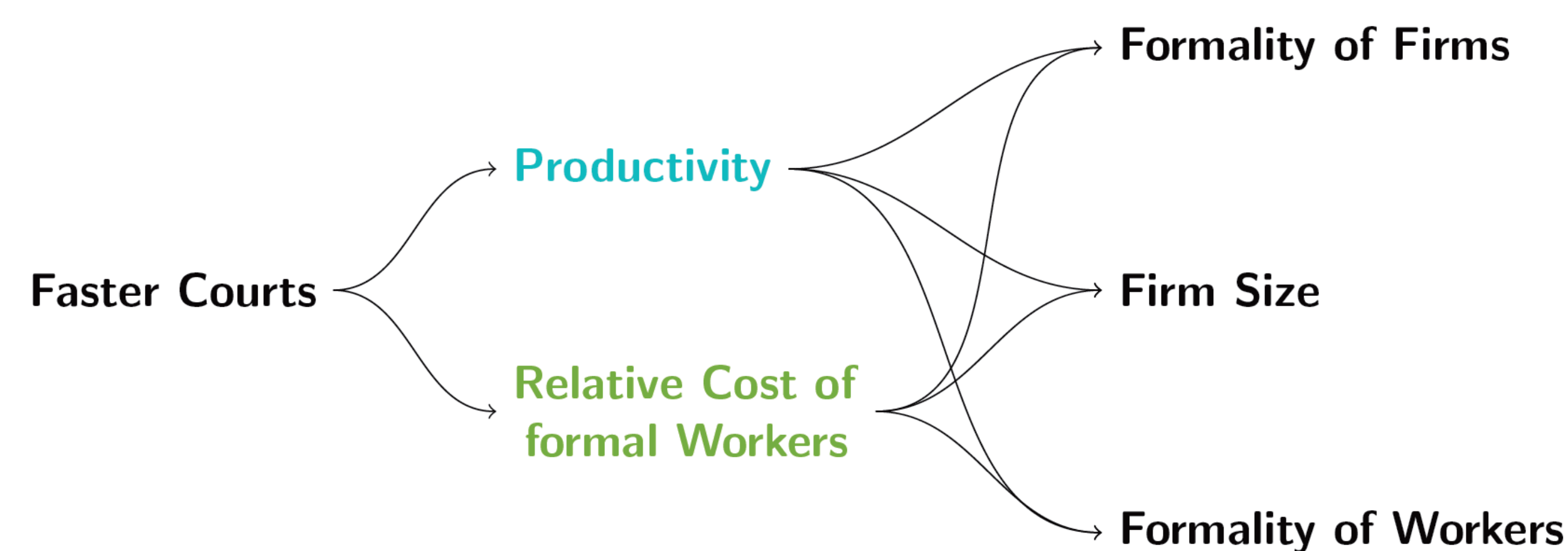


1) Research Question

How does court efficiency affect firm and labor informality?

2) Motivation

- Informality is pervasive in developing economies
=> around 80% of workforce in India is informal
- Courts slow and highly backlogged



3) Add court efficiency to Ulyssea (2018)'s model

- Firms decide to be formal or informal
- Heterogeneous firms produce one homogeneous good
- Endogenous entry of firms
- Exogenous exit

Formal incumbents

- Hire formal (l_f) and / or informal (l_i) workers
- Tax on revenue τ_y and payroll τ_w for formal workers
- Informal labor \nearrow risk of being caught: $\tau_f(l_i)$
- Productivity depends on court-speed: $\eta(b)$ with $\eta > 0$
- Formal labor cost depends on court-speed: $\lambda(b)$

$$\Pi_f(\theta, w, b) = \max_l \{ (1 - \tau_y) \eta(b) \theta q(l) - C(l) \}$$

$$C(l) = \begin{cases} -\tau_f(l)w, & l \leq \tilde{l} \\ [\tau_f(\tilde{l}) + (1 + \tau_w)(l - \tilde{l})\lambda(b)]w, & l > \tilde{l} \end{cases}$$

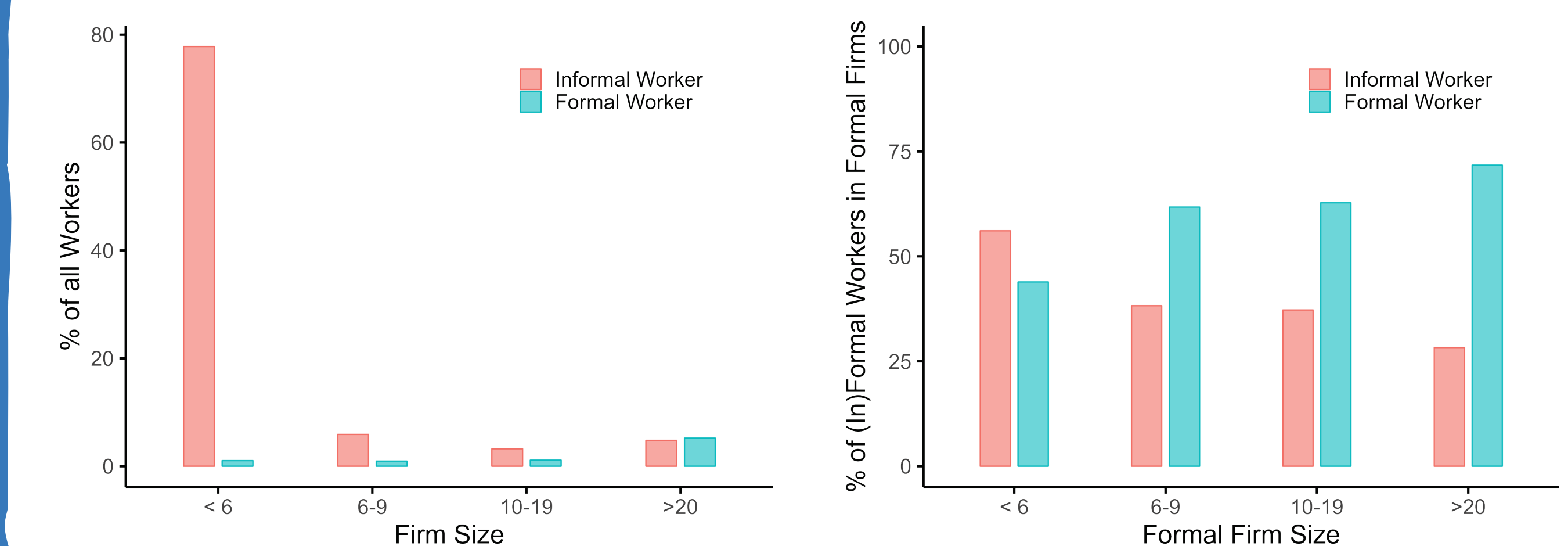
4) Data

Informal workers: Workers with no formal labor contract and no social security benefits

Informal firms: Self-employed + non registered firms which hire casual labor outside own household

Combine several surveys:

- Firms: 327,693 firms (SUNAE, ASI 2009/10)
- Workers: 118,133 individuals (EUS 2009/10)



6) Results

	Formal Firm if Firm of Size				
	(1) All	(2) ≤ 2 Workers	(3) > 2 Workers	(4) ≤ 10 Workers	(5) > 10 Workers
Clearance Rate	0.163** (0.0538)	0.183** (0.0565)	0.133* (0.0643)	0.168** (0.0535)	0.0793 (0.103)
Region FE	✓	✓	✓	✓	✓
Covariates	✓	✓	✓	✓	✓
Mean Dep. Var.	0.32	0.28	0.59	0.32	0.78
First Stage F	37.23	37.23	37.23	37.23	37.23
Observations	142,528	91,590	50,938	122,920	19,608

Court efficiency impacts firms and formality!

- Firm formality \uparrow with court efficiency
- Effect mainly driven by small firms (< 10 workers)
- Zero effect on overall formality of workers
- Small positive effect on formality of workers in formal firms
- Faster courts => smaller firm size distribution

A cost on formal workers can explain all observed effects

$$\eta'(b) = 0 \text{ and } \lambda'(b) > 0$$

- Improved court efficiency lowers relative cost of formality
- Encourages firm registration and formal hiring
- Strongest effects for small firms

5) Empirical Strategy

Estimate effect of court efficiency in district d on firm f :

$$y_{fdr} = \alpha_r + \theta b_d + \gamma X_d + \epsilon_{fdr}$$

where:

- y_d : outcome of interest in district d in years 2009/10.
- b_d : court efficiency in district d in 2008
- X_d : district level controls
- α_r : region fixed effects

2SLS regressions at district level

IV: Mean share of occupied court rooms in district 2004-2008

- 20% of judge positions vacant
- Judges have to rotate regularly
- Rotation subject to rules

Exogeneity violated if and only if

- Judges always get preferred position and
- Preferences of judges for district d are correlated with y_d

Regressions clustered at State x NIC4 level.

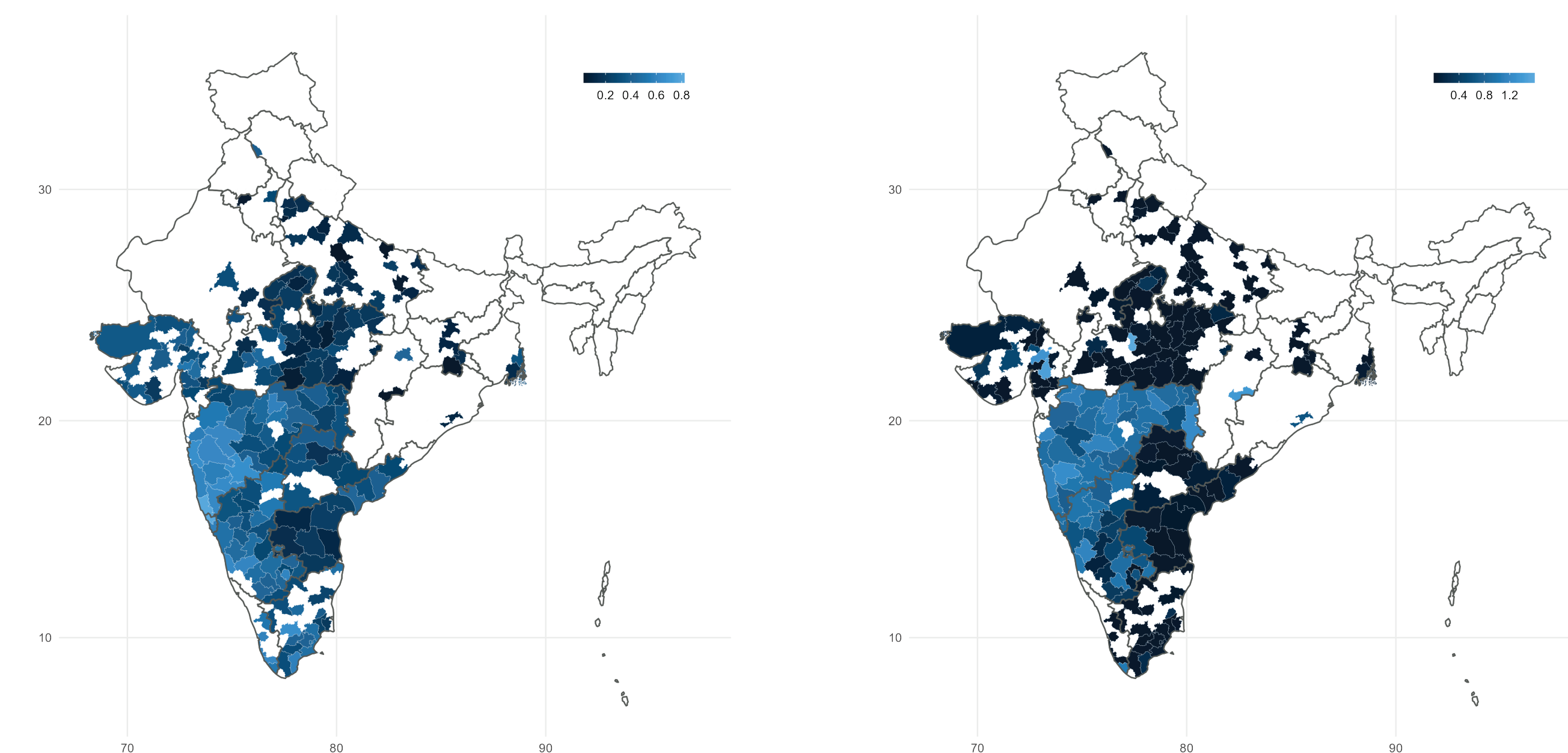
District and Session Courts: First instance for relevant cases

=> Judges in these courts handle civil and criminal cases

Measures of court efficiency:

- Backlog: Number of cases pending for over a year
- Age of cases: Average of pending cases
- Disposition time: pending cases / resolved cases
- Clearance rate: resolved cases / incoming cases

Aggregate all moments at district level



a) Clearance Rate

b) Share of Formal Firms