

Labour Market Regulation and Employment in India's Registered Manufacturing Sector

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Introduction

- Labour laws mediate the relationship between employees, employers, and the government.
- The theoretical debate on the effect of labour regulation on employment has two distinct strands
 - Distortionist** Government intervention gives suboptimal outcomes
 - Institutionalist** Protects vulnerable, better bargaining power

Literature Review

Distortionist

[Besley and Burgess, 2004]

[Botero et al., 2004]

[Sofi and Sharma, 2015]

[Almeida and Carneiro, 2012]

Institutionalist

[Jha and Golder, 2008]

[Deakin and Sarkar, 2011]

[Bhandari and Sudarsan, 2016]

[Nataraj et al., 2013]

India and Labour Laws

- The registered manufacturing sector is regulated by the Industrial Disputes Act, 1947
- Industrial Disputes Act
 - Federal Law
 - Can be amended at provincial level as well
 - Regulated conditions for retrenchment

Research Question

What is the effect of pro-worker amendments to the number of total, permanent, and temporary workers in India's registered manufacturing sector?

Data and Methodology

- World Bank Enterprise Survey 2014
 - Fiscal Year 2012-13
 - 9281 firms (total number of firms)
- Dataset
 - 2257 registered manufacturing firms
- Besley-Burgess Index
 - Pro-workers (+1)
 - Pro-Employers (-1)
 - Neutral (0)

Basic Regression Equations

$$(totalworkers)_i = \alpha_0 + \alpha_1(law)_i + \alpha_2(sales)_i + \alpha_3(wage)_i + u_i \quad (1)$$

$$(permanent)_i = \beta_0 + \beta_1(law)_i + \beta_2(sales)_i + \beta_3(wage)_i + \nu_i \quad (2)$$

$$(temporary)_i = \gamma_0 + \gamma_1(law)_i + \gamma_2(sales)_i + \gamma_3(wage)_i + \mu_i \quad (3)$$

We employ OLS, OLS with robust standard errors, and FGLS to compute the above equations

Expected Signs

VARIABLES	(1) TOTAL	(2) PERMANENT	(3) TEMPORARY
law	negative	negative	positive
sales		positive	
wage		negative	

Results

	(1)	(2)	(3)
VARIABLES	TOTAL	PERMANENT	TEMPORARY
law	-16.28*** (3.697)	-16.80*** (3.689)	0.261 (0.903)
sales in million	0.147*** (0.0115)	0.145*** (0.0115)	0.00663*** (0.00154)
wages in thousands	-0.264*** (0.073)	-0.261*** (0.0732)	-0.0417** (0.0179)
constant	97.49*** (9.015)	91.97*** (9.058)	11.21*** (2.147)
Robust Std Errors	YES	YES	YES
Number of Observations	2175	2190	2193
R-square	0.351	0.349	0.032

Robustness Checks

OLS with robust standard errors

VARIABLES	(1) TOTAL	(2) PERMANENT	(3) TEMPORARY
law	-8.580** (3.685)	-8.440** (3.685)	0.116 (0.907)
sales	0.130*** (0.0115)	0.128*** (0.0115)	0.0057*** (0.00161)
wage	-0.262*** (0.0716)	-0.256*** (0.0717)	-0.0455** (0.0187)
tabove	48.66* (27.49)	64.13** (27.65)	-2.061 (4.961)
gov	4.775** (1.935)	4.719** (1.941)	-0.109 (0.159)
expdum	54.36*** (7.397)	53.18*** (7.421)	1.664 (1.421)
ezone	58.10** (25.93)	51.61** (24.65)	3.249 (4.030)
newcap	15.75*** (5.546)	13.55** (5.539)	4.264*** (1.109)
constant	59.62*** (12.92)	49.32*** (13.13)	10.62*** (2.943)
Robust Std Errors	YES	YES	YES
Number of Observations	2175	2190	2193
R-square value	0.398	0.394	0.042

Robustness Checks

Feasible Generalized Least Squares Estimation

VARIABLES	(1) TOTAL	(2) PERMANENT	(3) TEMPORARY
law	-8.580** (4.144)	-8.440** (4.136)	0.116 (0.849)
sales	0.130*** (0.0044)	0.128*** (0.0043)	0.0057*** (0.00084)
wage	-0.262*** (0.0734)	-0.256*** (0.0733)	-0.0455*** (0.015)
tabove	48.66* (27.45)	64.13** (27.41)	-2.061 (5.626)
gov	4.775*** (0.842)	4.719*** (0.844)	-0.109 (0.173)
expdum	54.36*** (6.076)	53.18*** (6.052)	1.664 (1.245)
ezone	58.10*** (13.64)	51.61*** (13.57)	3.249 (2.786)
newcap	15.75*** (5.281)	13.55** (5.273)	4.264*** (1.081)
constant	59.62*** (13.65)	49.32*** (13.61)	10.62*** (2.791)
Number of Observations	2175	2190	2193



Conclusion

- We show that pro-worker regulation reduces the number of workers permanently employed by manufacturing units
- This leads to the peculiar situation in which pro-worker regulations push workers off the very same protections that the law intended to provide




Limitations

- Cross-sectional data
- Only for a single year
- Self-reported variables subject to error

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