



OECD Economics Department Working Papers No. 624

Labour Regulation
and Employment Dynamics
at the State Level in India

Sean Dougherty

<https://dx.doi.org/10.1787/241014565862>

Unclassified

ECO/WKP(2008)32

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

04-Aug-2008

English - Or. English

ECONOMICS DEPARTMENT

ECO/WKP(2008)32
Unclassified

**LABOUR REGULATION AND EMPLOYMENT DYNAMICS
AT THE STATE LEVEL IN INDIA**

ECONOMICS DEPARTMENT WORKING PAPERS No. 624

By
Sean M. Dougherty

All Economics Department Working Papers are available through OECD 's Internet Web Site at
www.oecd.org/econ/Working_Papers

JT03249416

Document complet disponible sur OLIS dans son format d'origine
Complete document available on OLIS in its original format

English - Or. English

ABSTRACT/RÉSUMÉ

Labour Regulation and Employment Dynamics at the State Level in India

Over the past decade, labour market outcomes have improved in India, with net employment rising markedly for the economy as a whole. However, these gains have arisen primarily in the unorganized and informal sectors of the economy, where productivity and wages are generally much lower than in the formal organized sector. It is only India's organized sector that is subject to labour market regulation, and here employment has fallen. The role of employment protection legislation in affecting employment outcomes is controversial both in the OECD area and in India. This paper looks at the impact of employment protection legislation and related regulation on the dynamics of employment in the organized sector of the economy, using newly constructed measures of national regulation and state labour reforms. We find that while reforms have taken some of the bite out of core labour laws, more comprehensive reforms are needed to address the distortions that have emerged.

This working paper relates to the *2007 Economic Survey of India* (www.oecd.org/eco/surveys/india).

JEL classification: G38; J21; J63; K20.

Keywords: Labour laws; employment protection indicators; job turnover; labour market distortions.

Réglementation du travail et dynamiques de l'emploi au niveau de l'État en Inde

Au cours de la dernière décennie, les résultats du marché du travail se sont améliorés en Inde, l'emploi net augmentant de façon sensible dans l'ensemble de l'économie. Cependant, ces gains sont intervenus essentiellement dans les secteurs non organisé et informel de l'économie, où la productivité et les salaires sont généralement bien moindres que dans le secteur organisé formel. Seul le secteur organisé est assujéti à la réglementation du marché du travail et, dans ce secteur, l'emploi a diminué. L'incidence de la législation de protection de l'emploi sur la performance du marché du travail est sujette à controverses aussi bien dans la zone de l'OCDE qu'en Inde. Le présent article examine l'impact de cette législation et des réglementations associées sur la dynamique de l'emploi dans le secteur organisé de l'économie, en utilisant de nouvelles mesures de la réglementation nationale et des réformes au niveau des Etats. Il ressort de cette étude que si les réformes ont permis d'assouplir quelque peu la rigidité du droit fondamental du travail, des mesures plus approfondies sont nécessaires pour remédier aux distorsions qui sont apparues.

Ce document de travail se rapporte à l'Étude économique de l'Inde 2007 (www.oecd.org/eco/etudes/inde).

Classifications JEL : G38; J21; J63; K20.

Mots clés : Législation du travail; indicateurs de protection de l'emploi; rotation du travail; distorsion du marché du travail.

Copyright OECD 2008

**Application for permission to reproduce or translate all, or part of, this material should be made to:
Head of Publications Service, OECD, 2 rue André-Pascal, 75775 Paris Cedex 16, France.**

TABLE OF CONTENTS

LABOUR REGULATION AND EMPLOYMENT DYNAMICS AT THE STATE LEVEL IN INDIA	5
Employment has expanded in the economy as a whole, but not in the organized sector	5
The slight contraction of organized sector employment disguises considerable underlying job dynamics	7
The size of job flows is surprising given the strict regulatory stance of India's labour laws	8
Job dynamics under heavy labour regulation are uneven and come at a great cost	10
High labour costs in the formal sector increase capital intensity and the size of the informal sector ...	13
The direct impact of India's labour regulations are subject to considerable debate	14
State-level labour reforms	16
A new OECD index of state-level labour reforms in India may illuminate the way forward	16
State-level labour reforms do seem to explain differences in flexibility	18
What can feasibly be done to improve India's labour markets?.....	21
The priority should be to reduce the cost of formal employment.....	21
... through broad-based labour reforms.....	21
Strategies to make EPL more well-balanced should focus on improving fairness.....	22
Practical strategies are already being pursued and may be expanded, even if they are second-best	23
ANNEX 1. STATE LABOUR REFORM QUESTIONNAIRE SUMMARY RESPONSES	26
BIBLIOGRAPHY.....	28

Tables

1. Gross job flows in the Indian manufacturing sector.....	8
2. Job creation and destruction by size of plant workforce and type of worker ¹	11
3. Capital intensity of plants.....	11
4. Job flow rates for publicly and privately owned plants.....	12

Figures

1. Organized and unorganized sector employment in industry	6
2. International comparison of employment protection legislation in 2006.....	9
3. Plant size distribution in the organized manufacturing sector by size of employment	14
4. Areas of state-level labor law reform	17
5. State labor reforms and gross job flows, 2001-04	19
6. The change in labor turnover and the change in the labor share of value added.....	20

7. Change in job creation rates and the share of unorganized employment, by state 21

Boxes

Box 1. Measuring job flows in India 7
Box 2. Policy recommendations for labour market reform 25

LABOUR REGULATION AND EMPLOYMENT DYNAMICS AT THE STATE LEVEL IN INDIA

By Sean M. Dougherty¹

This paper presents new indicators that first measure the strictness of federal EPL settings in India, and second provide a quantitative indication of the extent to which states have – or have not – made changes in their implementation of labour laws and regulations. Based on these indicators, it would appear that employers have found ways to counter the rigidity of labour legislation through: switching to less protected categories of labour by using short-term contracts; substituting capital for labour to a considerable degree (using more capital intensive means of production); and by keeping plant size below the thresholds at which key laws become applicable, limiting economies of scale. The state-level indicators suggest that some states have also reacted to the perceived cost of federal laws on employment by making procedural and process-related reforms in the application of labour laws. These reforms do appear to have stabilized labour's share of income in reforming states, in contrast to the national picture of a decisively falling labour share. However, while these reforms have taken some of the bite out of core labour laws (and a range of other factors are at work), the paper makes the case for more comprehensive labour reforms that would lower the costs of employment adjustment, better protect workers as a whole, and help address the distortions that have emerged which appear to adversely impact labour market outcomes and economy-wide efficiency.

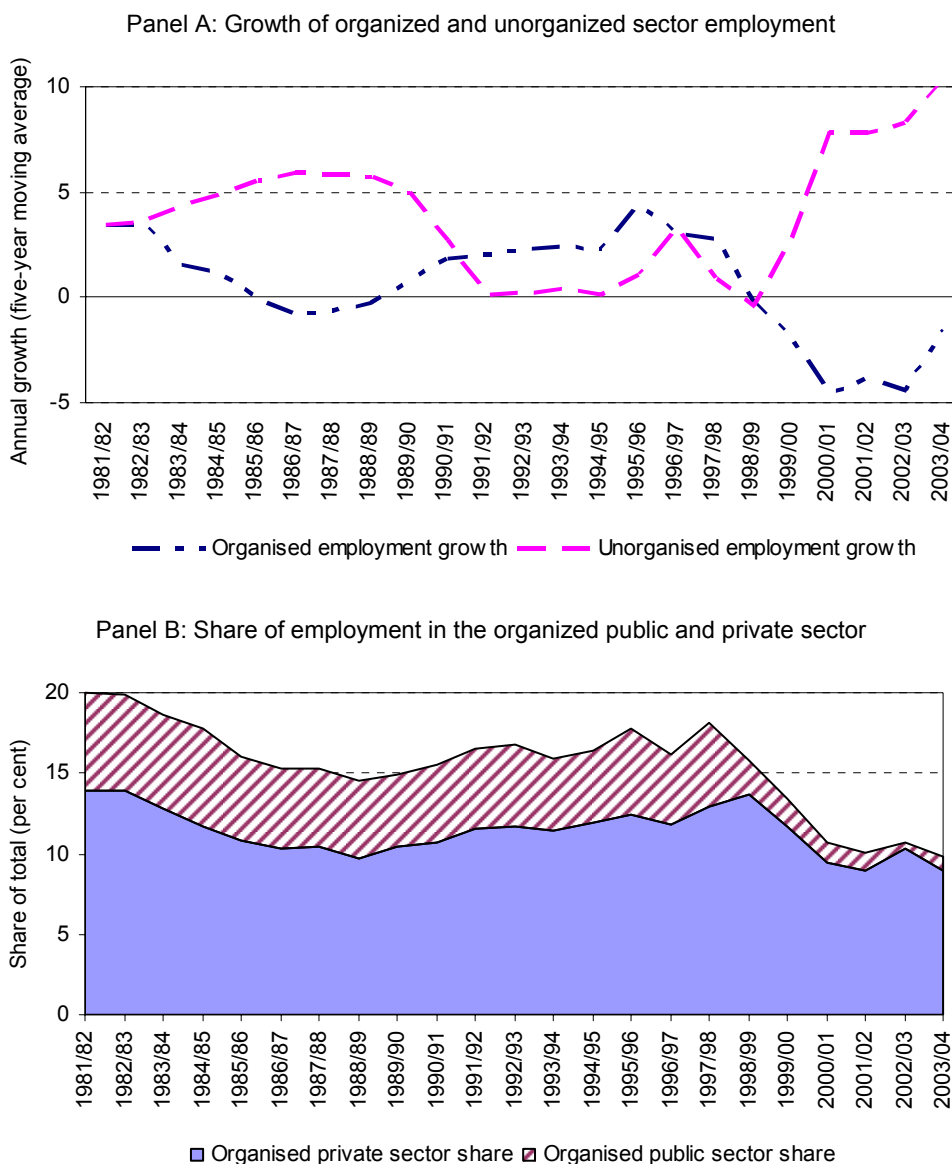
Employment has expanded in the economy as a whole, but not in the organized sector

Contrary to widespread concerns about so-called jobless growth, employment expanded in five out of the last six years for India's economy as a whole, as well as for manufacturing, according to updated estimates based on the most recent (2004/05) round of the Government of India's National Sample Survey (NSS).² Such estimates imply that employment growth has improved considerably, doubling the 1.3% pace of growth during the 1990s over the first five years of the 2000s. The pace of employment growth of over 2½ per cent *per annum* so far in the 2000s also exceeds the 1.9% pace of growth during the 1980s. Such an outturn is well above the previous expectations of many observers and represents a major upward shift in India's labour market performance (see Nagaraj, 2004; Anant *et al.*, 2006; Government of India, 2006).

-
1. Special thanks go to Ashok Lahiri (MF), Amitabh Kumar (CSO), B.P. Pant (FICCI), Ashok Sahu (ML), Sanjukta Ray (Giri), Manisha Singh (IDF) and Simrit Kaur (Delhi) for facilitating this work. Comments by Richard Herd, Anders Reutersward, Stefano Scarpetta, Frédéric Langer and Anne Saint-Martin were most appreciated. Support by Thomas Chalaux for statistical work and Nadine Dufour for technical preparation is gratefully acknowledged. This paper is based largely on material from the OECD Economic Survey of India published in October 2007. The author is Senior Economist in the OECD Economics Department.
 2. OECD estimates use the quinquennial NSS household surveys (including the most recent 61st round for 2004/05) in conjunction with census data and intermediate small scale surveys (CSO, 2006). Labour force participation is (under *usual status*) 42% of the population, having risen by about 3 percentage points in the past five years. The new NSS figures also show that the unemployment rate (in terms of *usual status*) remained almost the same for rural males, and decreased by one percentage point for urban males, but increased by about one percentage point for females in both rural and urban areas.

Gains in employment from 1998 to 2005 came about nearly equally from increases in secondary and tertiary employment (representing 19% and 25% of the labour force, respectively). About 30 million net jobs were added in each of the two sectors, representing an annualized growth rate of about 6.2% for the secondary sector and 4.7% for the tertiary sector. These growth rates represent a turnaround from the anaemic pace of employment growth for much of the 1990s, and even exceed the employment growth rates of the 1980s. Net employment gains in agriculture on the other hand slowed to ½ per cent per year, as more workers moved to off-farm employment. Perhaps what is most surprising – given that industrial production has increased less than total output – is that the pattern of employment in industry (and manufacturing) has followed that of the economy as a whole, with overall net employment growth of 6½ per cent per year over the 1997 to 2004 period.

Figure 1. Organized and unorganized sector employment in industry



Source: OECD analysis of NSS and ASI data.

Despite strong gains in employment across the economy in recent years, a dichotomy has emerged with net increases in employment occurring almost exclusively in the least productive, unorganized, and often informal part of the economy. Meanwhile, the organized sector's employment level has actually been shrinking.³ In industry, from 1997 to 2004, the overall 6½ per cent annual growth of employment disguises an average net *loss* of employment in the organized sector of about 1% per year over the period, while unorganized manufacturing employment grew at a rate of about 8% per year (Figure 1, Panel A). As a result of these developments, the relative share of the organized sector in industrial employment fell from 15–20% in 1981–98 to only 10% in 2004 (Figure 1, Panel B), a decline that was much more rapid than for the economy as a whole.

The slight contraction of organized sector employment disguises considerable underlying job dynamics

In order to better understand what has happened to the fortunes of the organized sector, this paper examines gross flows of jobs in organized manufacturing and the potential influence of labour regulations on these dynamics. Our methodology for measurement of job flows is described in Box 1. The resulting job creation, destruction and turnover figures capture the annual dynamics of employment at the level of detailed industry branches from 1998 to 2004 and represents the first study of India to have compiled gross job flow statistics using unit-level microdata. These figures reveal that the slight contraction of net employment in the organized sector disguises considerable underlying job dynamics, with rates of job destruction often higher than those for creation.

Box 1. Measuring job flows in India

In empirical work carried out for this paper, seven years of Annual Survey of Industries (ASI) microdata covering the entire organized manufacturing sector were analysed to create a longitudinal sample of employment dynamics at the detailed industrial branch level, country-wide and for individual Indian states. This analysis used the basic methodology of OECD (1996) and Davis *et al.* (1998) to compute job creation and destruction statistics, with adjustments for the level of aggregation following the approach of Singh (2006). The resulting figures capture changes in employment levels for detailed manufacturing industry branches between adjacent years from 1998/99 to 2003/04, relying upon plant-level microdata.

The preferred approach for computing such job creation and destruction statistics is to use *longitudinal* microdata, matched over time at the establishment level. This was impossible because the CSO does not disclose plant-level identifiers that can be matched across time. So instead, a pseudo-longitudinal panel was constructed that uses detailed (three and five-digit) industry branch codes based on each plant's industry of operation. Such figures should in principle capture all job reallocation across industries, although they are likely to underestimate the actual turnover of jobs within-industry, as plant-level flows cannot be directly observed. Therefore, they represent a probable lower bound on job creation and destruction rates, although measurement error from non-responding plants could raise measured job flow rates to the extent they are not fully captured in sampling weights (see Ahmad, 2006). Although this means that the resulting figures are not comparable with other countries' job flow statistics, they are internally consistent and thus can be analysed across time and sector.

Our estimates of job flows at the national level finds considerable employment dynamics at the five-digit, and even three-digit, levels of aggregation (Table 1). At close to 4% per year through 2004, the annual rate of job creation has eased slightly since 1985. At the same time, the rate of job destruction has picked up from about 4% per year to 5%, resulting in a deterioration of net employment growth from about +1% per year pre-1998 to -1% per year in the most recent period. This shift in employment outcomes has coincided with a slowing of job turnover and reallocation. Using a more detailed five-digit industry branch level of aggregation, additional job dynamics are picked up in the analysis, implying a 14% rate of job creation and 15% rate of job destruction since 1998. Such rates are as high as plant-level job flows in the US and France, although they are lower than (firm-level) estimates for China, where there has been more job destruction (Deng and McGuckin, 2005).

3. The organized sector in manufacturing is composed of factories (or plants) that have ten workers or more and use power, or 20 workers or more and do not use power. For the remainder of the economy, the organized sector essentially refers to all companies and government administrations. The size of the overall organized sector has fallen, from about 28 to 27 million persons, or from about 7½ to 6½ per cent of total employment, over the period 1995 to 2004, while the number of persons in regular wage employment outside of the organized sector has more than doubled.

Table 1. Gross job flows in the Indian manufacturing sector

Year ¹	Job creation rate	Destruction rate	Net employment rate	Turnover rate
<i>Based on three-digit industries:</i>				
Average 1985-1998	5.3	-4.1	1.2	9.4
Average 1999-2004	3.9	-5.0	-1.1	8.9
<i>Based on five-digit industries</i>				
1999-2000	18.9	-21.2	-2.3	40.1
2000-01	11.4	-13.7	-2.3	25.0
2001-02	8.0	-10.8	-2.8	18.8
2002-03	16.5	-13.1	3.3	29.6
2003-04	15.8	-16.1	-0.3	31.9
Average 1999-2004	14.1	-15.0	-0.9	29.1

1. Year pairs are based on fiscal years from April until March.

Source: OECD analysis of ASI plant level data for period 1997-2004 and EPW data for 1985-97.

The size of job flows is surprising given the strict regulatory stance of India's labour laws

Given this apparently high degree of jobs dynamics in the organized sector, one would expect that the regulatory stance of labour laws would be weak. However, India's labour market regulations for the formal sector are much more stringent than those of most OECD countries and several major developing countries as well. A standardized evaluation of India's employment protection legislation (EPL) using the OECD EPL methodology was carried out using legal information supplied by the Government of India. The OECD methodology, outlined in the 1999 edition of the *OECD Employment Outlook*, evaluates the stringency of a country's labour regulations in three areas: those for regular (indefinite) contracts, for temporary or fixed-term contracts, and for collective dismissal. Following this approach, India's federal labour laws were scored, as they stood in early 2007.

For regular contracts, India's labour laws are stricter than those of all but two OECD countries, Portugal and the Czech Republic (Figure 2, Panel A). This stringency comes in large part from the procedural difficulty of having to obtain prior government permission to lay-off just one worker for plants covered by the Industrial Disputes Act (IDA). Chapter V-B of this Act, which requires such approval for all factories with more than 100 workers, removes much of the distinction between the EPL for regular employment and for collective dismissals. If this provision were not in force, the EPL for regular contracts would fall to the OECD average, which happens to be nearly the same as China's score. This is indeed the situation for most employees in India's tertiary sector, yet the concern remains for the secondary sector. Even then, though, dismissing workers in non-IDA plants on performance grounds is difficult, as standard notification and severance obligations tend to be quite high, and courts often order reinstatement rather than compensation for unfair dismissals.

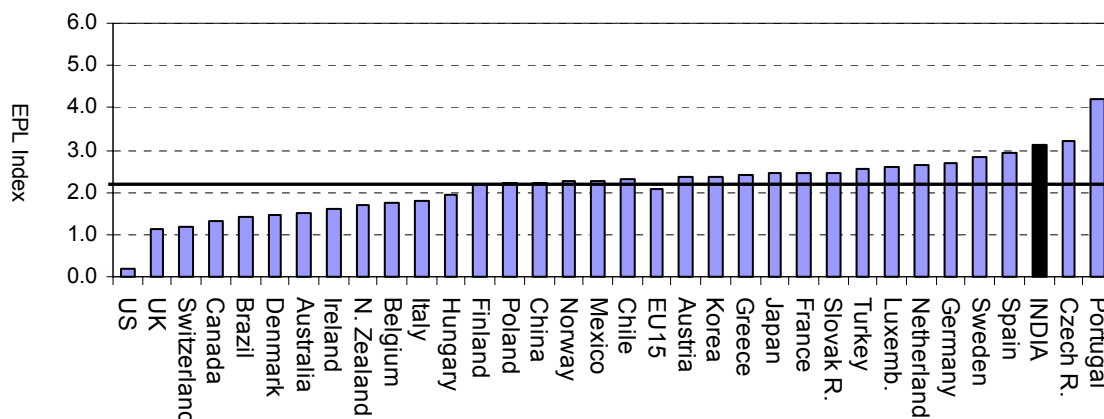
The stance of India's EPL regime is more relaxed only for temporary and fixed-term contracts, placing it just above the mean of OECD countries' score for such contracts (Figure 2, Panel B). The moderate score of India for such contracts reflects the main area of labour reform that has come about in recent years, allowing employees to work on temporary work agency contracts to carry out a range of "non-core" activities, a concept that is defined in various ways across states but is usually restricted to activities that are ancillary to production.⁴ Standard fixed-term contracts are allowed for white-collar workers as well as, in principle, for regular workers, following a federal notification in 2003, and about half the states have implemented analogous provisions, but public awareness of the state-level provisions is low and repeated attempts to reverse the central notification may be deterring its use. The most important

4. There are blanket allowances for contract labour in the BPO/IT sector and for SEZs in some states. See Box 1 and Annex 1.

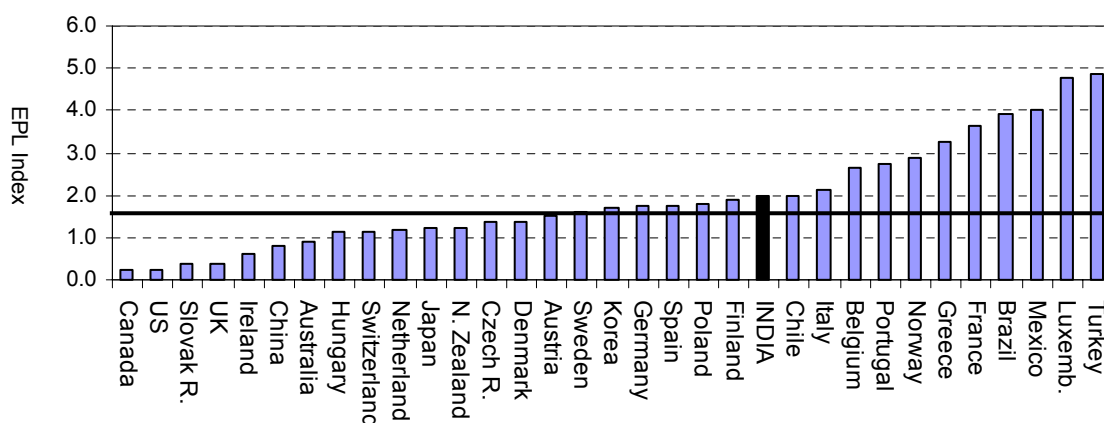
Figure 2. International comparison of employment protection legislation in 2006

The indicator score runs from 0-6, representing the least to most restrictive

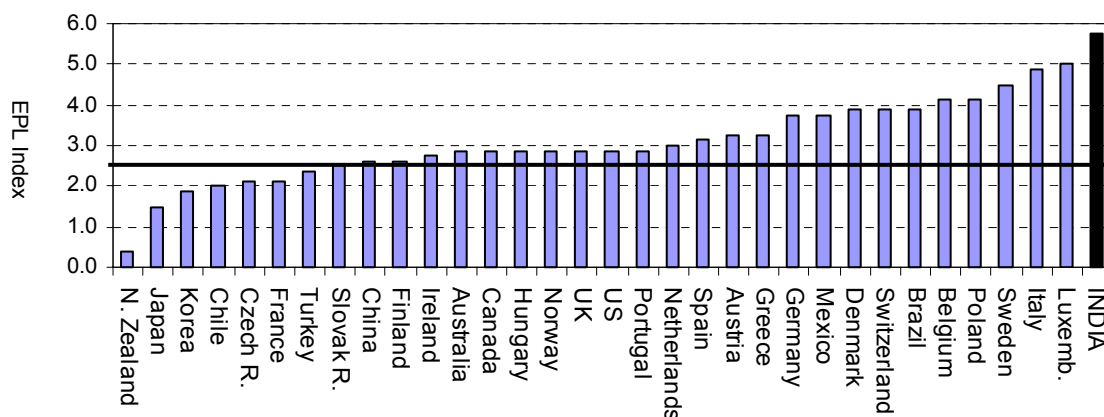
Panel A: Regular employment (restrictions on indefinite contracts)



Panel B: Fixed term and temporary employment



Panel C: Collective dismissals



Source: OECD computation for India, estimate for China; OECD (2005), *Going for Growth*; OECD (2007), *Economic Survey of Brazil*.

recent shift in the temporary EPL stance was a recent Supreme Court decision (2006) that clarified the minimal restrictions on renewal of temporary contracts (although severance payments proportional to job tenure are required). This decision represented an important shift from the prior possibility of contractors being converted to indefinite contracts which could then cause the restrictions on regular contracts and collective dismissals under Chapter V-B of the IDA to come into force.

The third measure of the economy-wide stance of EPL is for collective dismissals (Figure 2, Panel C). Here, India's stance is especially onerous, more-so than any other comparison country. Nearly every aspect of this measure rates at the top end of the scale, from the definition of collective dismissal (one worker), to notification and delays involved, given requirements for obtaining prior government consent. Most of these rules are encompassed in the IDA legislation, and come into force for any plant with more than 100 workers, encouraging many plants to stay small and restrict their scale of operation (see Figure 3 below).

As a whole, India's federal EPL stance is highly restrictive for the organized sector that it covers, given its interference in a number of important respects with firms' hiring and severance decisions. Nevertheless, job flow statistics suggest that considerable dynamics exist despite the regulations. This seeming mystery could be a result of enterprises altering their behaviour to reduce the impact of the rules, or it could be that in practice EPL application or enforcement is less onerous than the regulations suggest – a possibility that is likely to vary considerably across states, given that constitutional responsibility for state labour regulation is shared between the centre and the states. Both of these possibilities are explored.

Job dynamics under heavy labour regulation are uneven and come at a great cost

While the degree of job dynamics appears to be considerable, it varies widely across different segments of the organized labour force. The unbalanced coverage of employment protection legislation (EPL) in India appears to be important in explaining the variation of job flows across segments, suggesting that EPL is distorting the decisions of employers and accentuating labour market duality:

- The EPL index for staff employed with fixed-term or temporary contracts – in India typically supplied by a labour contracting agency – showed a moderate degree of restrictiveness, similar to the average for OECD countries. Correspondingly, over the period 1998 to 2004, job creation amongst contractual staff consistently dominated job destruction, allowing the net employment of contractual staff to rise by 10% annually, while it declined by 2½ per cent a year for regular workers, for whom there was much less job creation (Table 2).
- For small firms employing 100 or fewer workers, the EPL index is also similar to that found in OECD countries and, over the same period, job creation rates were more than double job destruction rates for this group of firms, causing employment in these smaller firms to rise by more than 20% a year. Moreover, despite the absence of restrictive dismissal laws, the job destruction rate in small plants was actually less than that in larger ones.
- In contrast, in large firms with over 100 employees (where the EPL index is high), the job creation rate for (non-supervisory and non-contractual) regular workers was low and well below the job destruction rate, with the result that the net employment of such staff fell by more than 5% per year in the period 1998 to 2004. In contrast, job creation for contract staff in large firms was twice the rate for large firms' regular workers, and despite a higher destruction rate as well, their net employment increased almost 4% per year.⁵

5. Nagaraj (2004) previously found some signs of possible shifting between supervisors and workers during the late 1990s, and there would appear to be a quantitatively similar adjustment in 1999-2000 for supervisors and workers, and between contractors and workers in 2001-00, but little circumstantial evidence in other recent years.

The tendency for large firms to restrain job creation is associated with a marked substitution of capital for labour that is not seen in small firms. Over the 1998 to 2004 period, constant price fixed assets per employee in plants with more than 100 workers rose by 21%, while they fell by 14% in smaller firms, according to tabulations by OECD using the Annual Survey of Industries (Table 3). While the large plants were already 28% more capital intensive, this raised their capital intensity relative to small plants by more than half.

Table 2. Job creation and destruction by size of plant workforce and type of worker¹

	% per year					
	Large ²	Small	Overall ³	Large ²	Small	Overall ³
	Job creation rate			Destruction rate		
All employees	11.5	24.2	14.1	-17.0	-8.4	-15.0
Workers	13.3	26.7	15.4	-18.7	-10.4	-17.5
Contract	26.7	31.0	28.7	-22.9	-13.7	-19.6
Supervisors	16.8	27.8	19.6	-27.4	-14.6	-24.7
Others	15.9	31.5	19.8	-25.2	-13.7	-22.5
	Net employment			Turnover rate		
All employees	-5.5	15.8	-0.9	28.5	32.7	29.1
Workers	-5.5	16.3	-2.1	32.0	37.1	32.9
Contract	3.8	17.2	9.0	49.6	44.7	48.3
Supervisors	-10.5	13.3	-5.1	44.2	42.4	44.2
Others	-9.3	17.8	-2.6	41.1	45.2	42.3

1. Based on five-digit industry data, 1999 to 2004, manufacturing only.
2. Large plant size is more than 100 workers, small have fewer.
3. Rates are not directly comparable with Table 1 due to differences in the levels of aggregation.

Source: OECD analysis of plant level data from ASI.

Table 3. Capital intensity of plants

Year	Fixed assets per employee			Index 1998/99 = 100	
	Constant prices, thousands INR			Large plants	Small plants
	Large plants	Small plants	Relative capital intensity		
1998-99	468 912	366 346	128.0	100.0	100.0
1999-2000	509 428	254 418	200.2	108.3	70.5
2000-01	491 789	332 730	147.8	105.2	89.2
2001-02	531 453	334 791	158.7	112.3	91.3
2002-03	527 071	335 996	156.9	112.5	91.7
2003-04	577 171	310 413	185.9	121.2	86.0

1. Large firms are defined as those with more than 100 workers; small firms fewer.
2. Shown in 1998/99 INR, with net investment deflated using the national accounts deflator for gross fixed capital formation.

Source: OECD tabulation of ASI plant level data.

Table 4. Job flow rates for publicly and privately owned plants¹

Per cent per year

	Public	Private	Overall ²
Job creation rate	20.6	14.3	14.4
Destruction rate	-25.6	-14.4	-15.2
Net employment	-5.0	0.0	-0.9
Turnover rate	46.1	28.7	29.6

1. Based on five-digit industry data, 1999 to 2004, manufacturing only.

2. Overall rates are not directly comparable with those in Table 1 and Table 2 due to differences in the level of aggregation.

Source: OECD tabulation of ASI plant level data.

A separation of job turnover rates between publicly and privately owned plants may illustrate more fully what has been happening in terms of the cost of EPL (Table 4). Publicly-owned plants (that represent slightly less than 20% of output in the ASI data) have almost *twice* the rate of job destruction as privately-owned plants over the 1999 to 2004 period. While public plants also have higher rates of job creation than private plants, public plants' net contribution to employment is highly negative, on the order of a 10% drop in employment each year. This result may appear to be strange given the presumably strict compliance of public firms with the IDA legislation and the usual motive of public firms to preserve employment.

How could turnover in public enterprises be so high? The main explanation for this extensive (public plant) turnover is that voluntary retirement schemes (VRS) have been accepted by workers and unions as a mutually agreeable mechanism for downsizing. VRS schemes became common after the government set up a National Renewal Fund in 1991 as part of the structural reform program, to fund restructuring of public sector enterprises; only later did the private sector begin to make use of VRS (Nagaraj, 2004).

The VRS scheme has made employment adjustment feasible; however, it comes at a great cost. Since it requires that settlements are collectively agreed upon, high levels of compensation are made to groups of workers. Typically, the reservation payoff to the most recalcitrant marginal worker determines the outcome of the negotiations. OECD interviews with employers and local governments suggest that such payoffs can easily reach levels of two to three months of compensation for each year of work.⁶ A financial analysis of public sector redundancy schemes suggests that total average payments to staff that left ranged between almost four to over six years' pay (Morrison, 2006). The redundancy compensation component (as opposed to normal leaving benefits such as accrued leave and provident fund balances) averaged between 10 and 36 months, with central government enterprises tending to pay the most. Such a cost places India among the most expensive in the world in terms of cost of dismissal, and is far above the statutory compensation that was intended by the IDA act (15 days of compensation per year of service). So while employment flexibility is feasible, it comes with an increased cost of severance – and not just to the employer who would normally have to pay for the VRS, but to the worker as well, in part because some businesses avoid payment altogether, but also because the costs create behavioural distortions that have detrimental economic effects.⁷

6. Other reports suggest that compensation levels are frequently on the order of 45 days per year of service (World Bank, 2006).

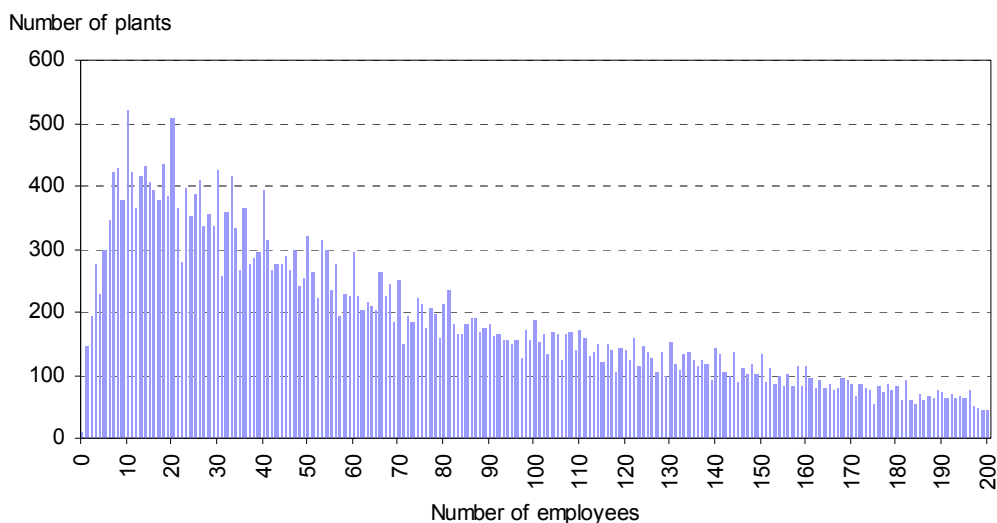
7. Many OECD counties that have only partially reformed their labour markets (such as Spain) have experienced similar rapid increases in segmentation and consequential loss of efficiency (Haltiwanger, Scarpetta and Schweiger, 2006).

High labour costs in the formal sector increase capital intensity and the size of the informal sector

Such high potential compensation for dismissal and the associated *uncertainty* raises the cost of employment, inducing larger employers to substitute more capital for labour than would appear justifiable given the apparently low wages that prevail in India.⁸ This effect can be observed in the low – and falling – labour share in organized industry, which can be observed in all two-digit industries from the 1980s. The share of total labour costs in value added has fallen from 36% in the early 1990s to 31% in 1999/2000 and 29% in 2003/04, with the steepest fall among large enterprises.⁹ The share of wages (including bonus payments) in value added has fallen similarly, from 25.7% in 1998/99 to 23.5% in 2003/04.¹⁰ Average wages have risen at a slower pace than labour productivity, so that labour compensation relative to Germany has been stagnant since the early 1990s. Moreover, wage inequality has grown considerably, with most gains going to the top two deciles, while median wages have remained stagnant (see Narain, 2006).¹¹

In addition to causing business to substitute capital for labour, high implicit costs of employment for large-scale firms have induced many entrepreneurs to start small and stay small. Businesses in the unorganized (and often informal) sector with fewer than 10 or 20 workers (depending on the law) are subject to very few labour regulations and can employ casual or contract labour freely, as can most information technology (IT) and business process outsourcing (BPO) companies. Even businesses in the organized sector with fewer than 50 workers face no legal restraints on collective dismissals, while those having 100 or fewer workers are not subject to the IDA requirement to obtain prior permission before dismissing workers (or shutting down). As a consequence, the size distribution of businesses in India is highly skewed toward small units (see Figure 3), with visible peaks in the distribution of plant sizes at ten and 20 workers. Considerable anecdotal evidence illustrates the extent to which entrepreneurs deliberately disintegrate their business activities into numerous small-scale units (Mukerji, 2006).¹² As discussed in Dougherty *et al.* (2008), such small scale production reduces the efficiency of the economy and limits the productivity and incomes of businesses and workers.

-
8. This effect can also be observed in the relatively capital and skill-intensive development pattern that India has developed, compared with countries at similar stages of development (see Dougherty *et al.*, 2008).
 9. Among plants with 100 or more workers, the labour share in value added fell almost three times more rapidly than among smaller plants, during the period 1998 to 2004.
 10. Official ASI wage data in value added have fallen from about 25% in the 1980s to only 12% in 2003/04, but these include neither bonuses nor the wages of supervisors and “other” (non-worker) employees.
 11. There is some evidence from the newest NSS that real wages for regular salaried workers outside of the organized sector may have even fallen in the most recent five-year period (Unni and Raveendran, 2007).
 12. The small scale is a consequence not only of labour laws, but also of product market regulations – especially administrative burdens – as well as tax avoidance (see OECD, 2007).

Figure 3. Plant size distribution in the organized manufacturing sector by size of employment, 2003

Note: Sizes rounded to the nearest even number.

Source: OECD calculation from ASI plant level data.

The direct impact of India's labour regulations are subject to considerable debate

The suggestion was made earlier in this *Survey* that the local business environment, and stringent labour regulations in particular, may have a deterrent effect on firm entry and investment, and thus could reduce potential output growth and possibly job creation as well. However, the empirical evidence on the role of labour regulations in India has been subject to a vigorous debate.

A series of economy-wide studies have examined the role of two key amendments to the Industrial Disputes Act (IDA) affecting collective dismissals (see Anant *et al.*, 2006; Bhattacharjea, 2006). The 1976 amendment mandated prior government permission for layoffs, and the 1982 amendment lowered the size threshold from establishments with more than 300 workers to those with more than 100. Roy (2002) examined accessions and separations of individuals from firms from the 1960s through 1992, and she found that the two amendments had a strong and adverse effect on labour market flexibility, a result consistent with the cross-country evidence. However, flexibility may have increased for other reasons, given the growing use of contract labour from the early 1980s. The amendments did not appear to have an impact on the slow speed of employment adjustment to shocks in India (5-6 years), a finding that may reflect the broader range of rigidities that exist in India: especially weaknesses in the insolvency framework and urban land laws (Anant and Goswami, 1995; Roy, 2004).

The variation that exists in India's labour laws across its states has offered fertile ground for empirical exploration by labour economists from around the world. Several well-known studies have been carried out, the best-known being the study by Besley and Burgess (BB) (2002, 2004), who compiled an index of state-level amendments to the IDA from 1949 through 1992, and classified them as to whether they were pro-worker or pro-employer. Their analysis of the indicator suggests that pro-worker amendments resulted in lower output, investment, employment and productivity in formal manufacturing although output in the informal sector increased. Their results also suggest that the more restrictive labour amendments had a perverse effect on the poor as they tended to increase urban poverty rates.

The BB index and its interpretation have turned out to be highly controversial and have been utilized as well as critiqued in multiple papers. Studies such as Hasan *et al.* (2003), Topalova (2004), and Sanyal and Menon (2005) use modified versions of the index (through 1992) to classify states as pro-worker or pro-employer, and find several things: states with more pro-worker labour legislation have lower elasticity of demand for labour, higher rates of poverty, and less investment, in part through interactions with trade liberalisation and state-level institutions. Further work by Aghion *et al.* (2005) updated the index (through 1997) and, using the time series of the index, found higher rates of growth following industrial de-licensing in states with more pro-employer labour institutions. Ashan and Pagés (2007) carried out a full re-scoring of the index to measure transaction costs and found at least as detrimental an impact on output and employment as the original BB study. Ashan and Pagés also separated the index into several sub-components and found that regulations that increase the cost of settling disputes appeared to be more costly for employment than the IDA's restrictions on firing and closure. On the other hand, a separate study by Purfield (2006) that further updated the BB index (through 2002) did not find significant detrimental effects of more pro-employer labour institutions on state-level growth.

Despite the robustness of the link between the BB index and poor labour market outcomes across different states in most of these studies, there are reasons to think that the index *could be improved* due to the sparseness of underlying amendments and its focus on just one law. Anant *et al.* (2006) and Bhattacharjea (2006) point out that many of the formal state-level amendments to the IDA used in the index would appear to be of minimal significance since they are infrequent, sometimes pertain to obscure procedural matters, and are likely to be overshadowed by court decisions and informal changes in the application of the laws. An update of the BB index carried out as background to this *Survey* (through 2005), using the most recent edition of the original data source for the index (Malik, 2006), shows that there have been only eight amendments to the IDA in any Indian state since 1990, and they relate to only three states, of which only the 2004 amendments in Gujarat would appear to be of any consequence to labour market outcomes.¹³

Several prominent observers of India's labour markets now argue that regulations other than the IDA are likely to be more important and that the IDA may be something of a distraction in the debate over labour reforms, given the four dozen central laws and hundreds of state laws that govern labour issues (Nagaraj, 2004; Debroy, 2005; TeamLease, 2006). There have been far fewer studies that look more broadly at India's labour laws in systematic empirical analysis, perhaps due to their complexity and overlapping coverage. Moreover, some of the most important changes appear to have occurred in interpretation of the laws by the Supreme Court and through changes in the way the laws are enforced, particularly obvious in the case of the use of contract labour, which has become increasingly widespread in many states (Anant *et al.*, 2006). Such state-level reforms have been the subject of speculation, but there has been little systematic regulatory information collected beyond the IDA amendments in the BB index.¹⁴

13. These post-1992 IDA amendments are comprised of: an additional method for qualifying to serve on a labour court in Tamil Nadu (1998); a reduction in the prerequisites for serving on an Industrial Tribunal in Madhya Pradesh (1999, 2003); removal of state-level provisions inserted in 1982 that pertained to criminal cases in Madhya Pradesh (2003); and the introduction of a range of exemptions from the IDA's Chapter V-B for Special Economic Zones in Gujarat (2004).

14. Some surveys to examine state-level changes in the application of labour laws through notifications and changes in the application of various regulations have been undertaken (CII, 2004a and 2004b). However, these previous efforts did not include all major states and questions were limited to a relatively small set of procedural changes.

State-level labour reforms

A new OECD index of state-level labour reforms in India may illuminate the way forward

In order to better understand how state-level reforms may have affected labour markets, the OECD developed a customized survey instrument to identify the areas in which Indian states have made specific discrete changes to the implementation and administration of labour laws. This state-level survey covered eight major labour legal areas, identifying 50 specific subjects of possible reform, many of which could be implemented by administrative procedure rather than through formal amendments to the laws. Since few of these changes have been systematically documented, the assistance of the All-India Association of Employers (AIOE) was used to survey 21 states, about half of which were visited in person by members of the survey team. Preliminary answers to the questionnaires were drafted in most states by a labour expert designated by the AIOE or the Federation of Indian Chambers of Commerce and Industry (FICCI) affiliate in the state capital. The answers to this draft questionnaire were then corrected through discussions with local union leaders, independent labour experts, employers and state labour commissioners. Finally, the completed questionnaires were submitted to each state's labour secretary for their final review.¹⁵

The verified responses to the survey were compiled by the OECD into an index that reflects the extent to which procedural changes have reduced transaction costs, through limiting the scope of regulations, providing greater clarity in their application, or simplifying compliance procedures. Answers were then scored as "1" if they reduced transaction costs, "0" if they did not, and (for two questions) "2" for a further reduction, with a maximum score of 50. A list of the subjects and summary scores are shown in Annex 1. The reforms covered in the index concern eight specific areas: the Industrial Disputes Act (IDA), Factories Act, State Shops and Commercial Establishments Acts, Contract Labour Act, the role of inspectors, the maintenance of registers, the filing of returns and union representation.

A breakdown of the average index score across all states is shown in Figure 4 (Panel A), which illustrates that the largest number of reforms that were identified concern contract labour, an area where many reforms have been carried out (especially for IT/BPO sectors and for export processing and special economic zones), but also an area for which there were more questions on the survey than for other areas. In order to adjust for the number of questions in each area, the number of cases where reform had occurred was taken as a proportion of the number of possible subjects for reform in a given reform area (Panel B, out of 100). This proportional index shows that, with the exception of reforming the role of inspectors and the rules concerning the role of unions, there was a fairly similar share of the reforms carried out across the different areas surveyed.

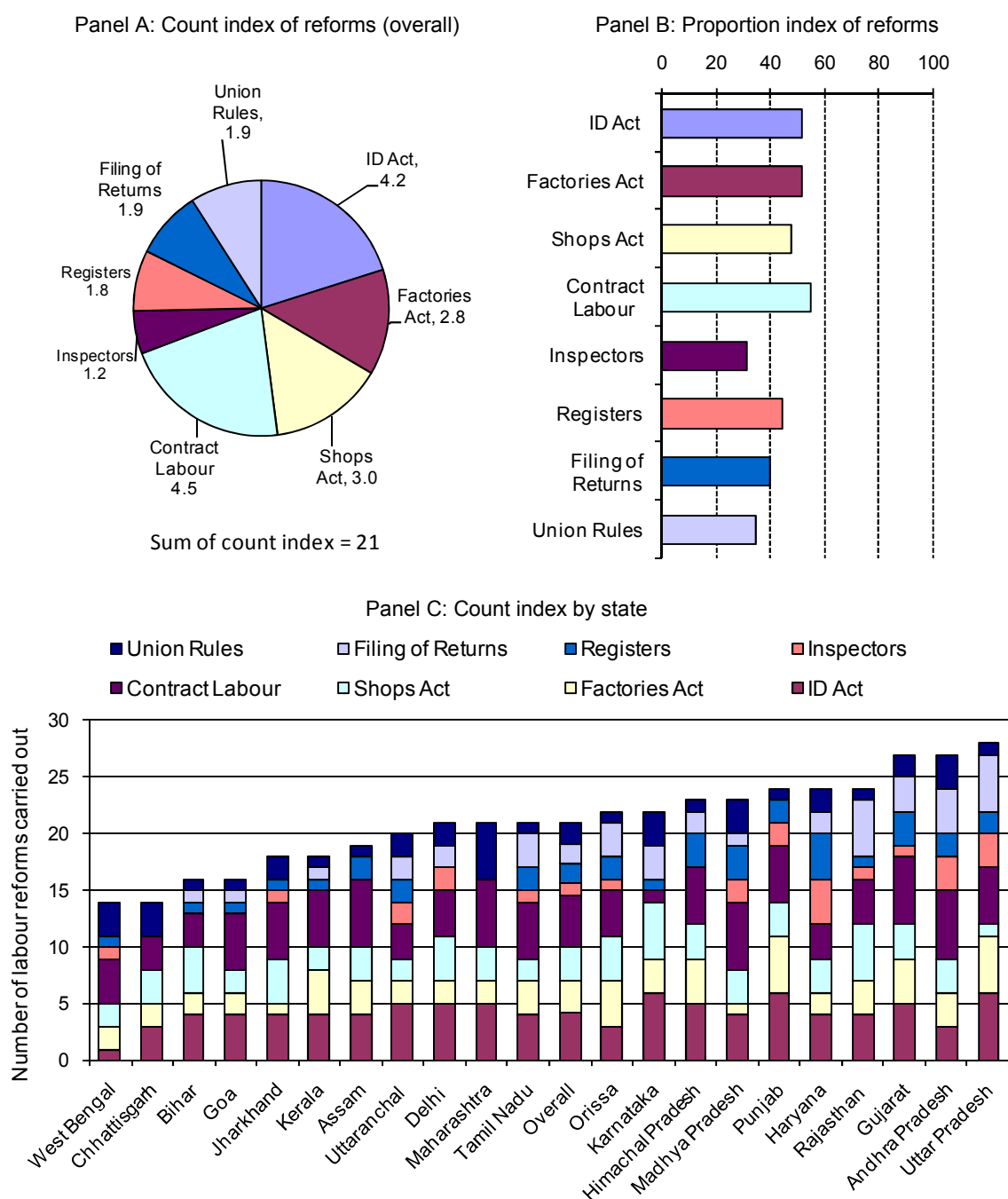
What is perhaps most notable about the indexes, though, is the very modest degree of reform that has actually been carried out since, even in the area of contract labour, there have been reforms in only about half of the subject areas. Moreover, no state has a raw score of more than 28 out of 50 of the possible reform subjects, and for seven of these, no more than two states made any reforms. The principal areas where there was little change were: key sections of the IDA (that concern collective layoffs); rules governing working hours; union recognition and reduction in the number of inspections.¹⁶

Nevertheless, looking across states, enormous variation in the extent of reform appears across all of the regulatory areas (Figure 4, Panel C). Ranked lowest in terms of the number of reforms carried out are

-
15. Detailed answers to the questionnaire, as well as a list of persons consulted, are available upon request from the author. The 21 designated states cover 98% of population and GDP.
 16. A number of states have introduced self-certification schemes that allow for infrequent pre-planned inspections (for instance, Gujarat and Uttar Pradesh), but these plans have so far have attracted minimal interest, apparently because of enhanced civil and even criminal liability under the law for violations.

Chhattisgarh, Goa and Bihar; at the same time, Gujarat, Uttar Pradesh and Andhra Pradesh are ranked highest. There is no dominant pattern in terms of the areas where the highest-ranked states have reformed, as the reforms are quite broad-ranging. However, it is notable that the three lowest-ranked states have made virtually no reforms in the areas of inspections, simplification of registers or the filing of returns. It is also of some significance that all states have made at least some reforms in the areas of the IDA and Contract Labour Act, for which the variation is the lowest among the reform areas.

Figure 4. Areas of state-level labour law reform



Source: OECD-FICCI-AIOE Survey of 21 states.

State-level labour reforms do seem to explain differences in flexibility

The extent of labour reform captured in the above cross-state indices does appear to be linked to the flexibility of the labour market. In order to measure flexibility, gross job flow statistics at the five-digit industry level are computed using the plant-level microdata for formal sector enterprises in each Indian state, separately, over the period 2000 to 2004. The resulting state-level job turnover rates are then compared with the state-level labour reform index to see if there is a relationship. Figure 5 (Panel A) shows this comparison, with the (proportional) labour reform index on the horizontal axis and the job turnover rate on the vertical axis.¹⁷ As the trend-line illustrates, the correlation between the reform index and job turnover rates is very high ($R^2 = 0.37$), suggesting that states that have made more reforms to their labour rules and regulations indeed obtain more flexibility (in terms of job dynamics) in their labour markets and *vice-versa*: fewer reforms significantly limit flexibility.¹⁸ The increased job dynamics come from higher rates of both job creation and destruction, which tend to offset each other almost entirely in terms of net employment (Figure 5, Panel B).

There is broad cross-country evidence to suggest that job security regulations raise the cost of employment and have a detrimental effect on the creative-destruction process that is vital to economic growth and technological progress (OECD, 2004 and 2006). Job security regulations limit job turnover in sectors that for technological or market structure reasons *need* more frequent adjustment of employment to be competitive. In the case of India, the results show that state-level labour reforms appear to increase job turnover (or flexibility), and a lack of such reforms limits turnover. Across Indian states in the 2000 to 2004 period, an increase in turnover rates can be shown to *limit the fall* in the labour share of value added that has been observed nationwide (Figure 6). Yet no state is able to do better than to stabilize their labour share. More broadly, increases in job turnover can help productivity and output growth (in part through better job matching), and therefore increase the pace at which incomes converge to those of more developed countries (see Caballero *et al.*, 2004; Micco and Pagés, 2004; Haltiwanger *et al.*, 2006).¹⁹

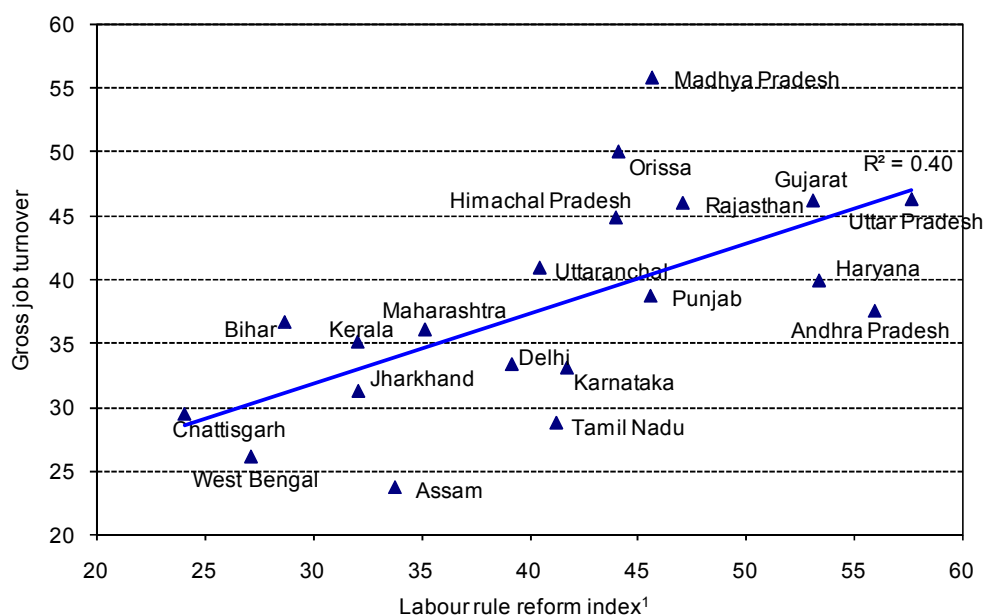
17. Note that the state of Goa is not included in this comparison as a result of its extreme outlier position, a position that likely results from its unique history with little industry, but perhaps most importantly from its position as the least restrictive state in India in terms of product market regulation (see Conway and Herd, 2008). If Goa is included, the correlations shown are still significant with the same signs, but the R^2 statistics are halved.

18. What is also striking (although not shown here), is that there is no clear relationship between the main subcomponents of the labour reform index (*i.e.* IDA and contract labour) and job turnover. It appears that what is important for flexibility is the overall labour regulatory stance, rather than rules in specific areas.

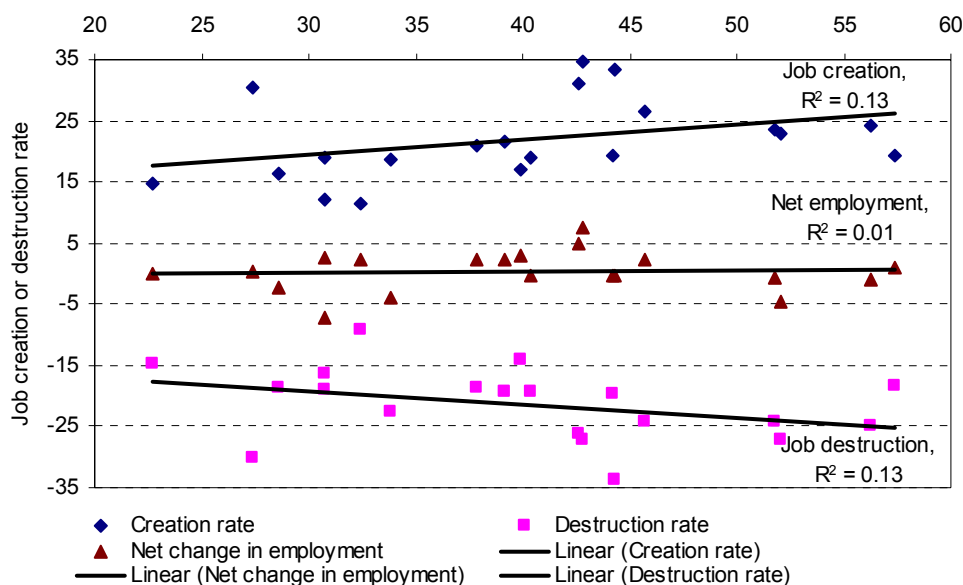
19. While we will not delve deeply into this question here, it is also the case that the higher rates of turnover are associated with higher TFP at the firm level using production function estimates on ASI microdata. Recent evidence of the TFP–turnover link has also been found across US states (Autor *et al.*, 2007).

Figure 5. State labour reforms and gross job flows, 2001-04

Panel A: Reform index and gross job turnover

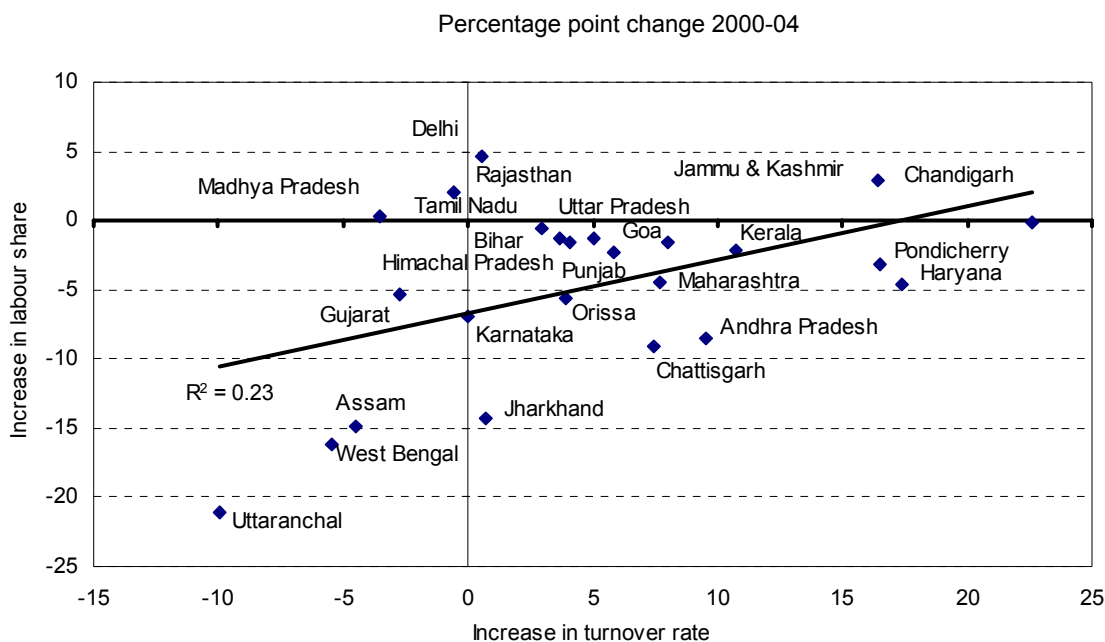


Panel B: Labour reform index and job creation, destruction and net employment growth



1. Uses proportional index of labour law changes by state.
2. Goa not shown, as it is an outlier, having the least-restrictive product market regulation.
3. State flow rates are not directly comparable with national rates due to different levels of industry-wise aggregation.

Source: Survey of Indian state governments and OECD tabulation of ASI plant level data.

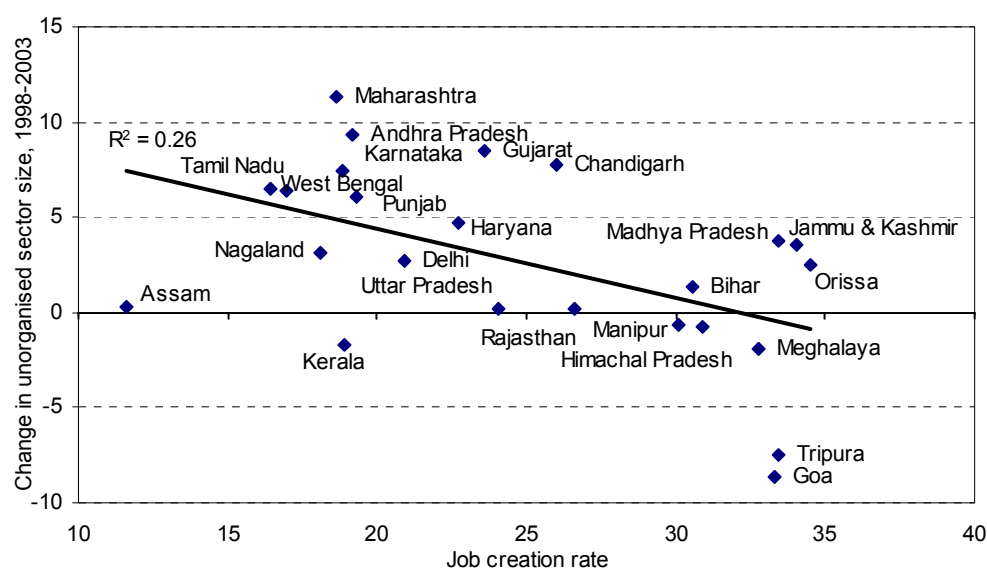
Figure 6. The change in labour turnover and the change in the labour share of value added

Note: Job turnover rates are per year based on five-digit national data over 2001-04.

Source: OECD tabulation of plant level data from the ASI.

The OECD job strategy re-assessment also found that a lack of employment flexibility accentuates labour market inequalities, as it makes it more difficult for vulnerable workers such as women, minorities and the youth to enter the workforce, and the formal sector in particular. In the case of India, the effects of the overall EPL stance are rigid enough that the marginal state-level reforms may only have moderating effects on the labour market as a whole. Thus, while we cannot identify a direct relationship between the labour reform index and the size of the informal sector in given states, we do observe that higher rates of organized sector job creation *stem the rise* in the size of the unorganized sector (Figure 7). Again (analogous to the previous Figure), no state is able to do better than to stabilise the size of its formal sector. Of course, many other factors also affect the incidence of informal employment, from competitive conditions and product market regulations to the extent of illiteracy (see Dougherty and Herd, 2008).

Figure 7. Change in job creation rates and the share of unorganized employment, by state



Note: Job creation rates using five-digit ASI microdata for the organized manufacturing sector.

Source: OECD calculation from ASI plant level data and NSS employment data.

What can feasibly be done to improve India's labour markets?

The priority should be to reduce the cost of formal employment

Labour reforms are urgently needed in India to reduce the relatively high cost of formal employment. Reforms could serve to limit the detrimental effects that high costs have on the dynamism of the labour market, as well as improve the wage share and enhance economy-wide productivity. The above analysis indicates that India's labour laws create a degree of employment protection (EPL) that is highly uneven, and among large firms and for collective dismissals it is higher than that of any OECD member or major emerging market. The negative consequences of this high level of protection are in line with the experiences of many OECD member countries. Considerable benefits for all workers could be had from a re-design and moderation of the current stance of India's EPL. This would allow business to become more competitive through greater economies of scale, which would not only improve the welfare of workers through higher productivity and wages thereby better benefiting even those segments of the workforce that the laws were designed to protect, as well as the vast (low productivity) workforce in the unorganized and informal sectors that they virtually ignore.²⁰

... through broad-based labour reforms

Our analysis of state-level labour reforms suggests that it is not the IDA alone that is harming labour market outcomes – it is the wider range of labour legislation.²¹ This result is consistent with the views of

20. In historical perspective, it is useful to note that much of the current set of labour laws were introduced during British rule and were intended to protect only a relatively privileged minority; to a significant degree, this remains the case today (World Bank, 2006).

21. This is not to say that the IDA is not in need of reform. Its ineffectiveness may be in part linked to its unrealistic interference with production decisions that must be made by firms in a market economy. These include not just Chapter V-B that requires prior government approval for layoffs and closure, but also

labour experts in India that cite the enormous complexity and uncertainty caused by the manifold overlapping laws and antiquated (often colonial-era) provisions, that are in dire need of simplification (Debroy, 2005; ADB, 2005; Sharma, 2006; Anant *et al.*, 2006; TeamLease, 2006; World Bank, 2006).

As a general principle, a country like India with a large informal economy should have less, not more, labour regulation than a typical OECD country. Stringent labour regulations exacerbate labour segmentation, and the negative consequences are very clear in the case of India. While a long-term goal should be to formalise all jobs, labour laws should not seek to impose conditions too different from what employers and workers would agree upon voluntarily.

Major efforts have been made over the years in an attempt to simplify the laws, but, they have met with little success. Most notable is the Second National Labour Commission's (SNLC) report in 2002, whose recommendations were widely vetted, highly detailed and for the most part quite moderate and well-regarded; yet few of its recommendations have been implemented in the past five years. While this is not entirely surprising as labour reform is perhaps the most intractable area to reform in any country, it raises the question of whether there are reform strategies which could be more effective.

Strategies to make EPL more well-balanced should focus on improving fairness

A critical challenge for Indian labour markets is to ensure that there is *greater fairness* for all types of workers – whether in the organized or the unorganized sector, and regardless of what types of establishments they work in or what type of contract they are employed under. At the same time it is critical that labour policies support the healthy functioning of markets so that overall welfare is not hurt.

Current policies work against large classes of workers, from females, whose unemployment rates of 9% (for urban females) are double the more moderate rates for males, to scheduled castes and tribes (Borooah, 2005) and even out-of-state migrant workers.²² The bulk of these under-represented groups earn below the minimum wage,²³ and many of them are faced with the unattractive prospect of casual employment at a low wage, with neither social protections nor stability.²⁴ In part these limited options are a

Chapter 9A that requires 21 days' notice for change of job description, and the letter of the law that involves compensation for termination of only 15 days per year, a level so far below negotiated outcomes under VRS that it may perpetuate a bad equilibrium of the *status quo*. A level such as 30-45 days would be more in keeping with OECD countries' practices.

22. Low rates of participation among urban females (18% versus 57% for males) reflect high rates of discouragement in finding good jobs, a fact that is illustrated in the 2004/05 NSS results. Job activation programs that involve training and incentives to re-enter the labour force have been found to be useful in many OECD countries. Few such programs exist in India, and the ones that do, such as the Rural Employment Guarantee Act, offer little prospect of human capital development, and may not be as attractive to females as to males. More useful perhaps would be a program that provides monetary incentives for educational development and training, along the lines of the *Progrresa/Oportunidades* program in Mexico (OECD, 2003, 2007).
23. There is some indication that minimum wages in India may offer a signalling effect that could be beneficial to workers without affecting overall employment rates (World Bank, 2006). However, while this may be true for the bulk of organized workers – dominated by males – for females and minority workers, the situation is likely to be different given that the majority of these groups earn below the minimum wage and strong enforcement of minimum wage laws would likely suppress labour demand (Kantor *et al.*, 2006).
24. Wages in the unorganized sector are on average about one-sixth that of the organized sector. However, it is important to note that the distribution is highly uneven, and that 30% of self-employed workers (in the unorganized sector) earn more than the average of those in the organized sector (World Bank, 2006). But the bulk of unorganized workers engage in the informal economy, essentially perpetuating a low-productivity/ low-income trap, with insufficient skill development (Anant *et al.*, 2006). In the informal

result of low levels of education and skills, but they are accentuated by the strength of employment protection, a problem that is observed for women and youth in many OECD countries.

A broader and more even-handed approach for India's labour laws and regulations is needed, in keeping with the recommendations of the recent re-assessment of the OECD's Jobs Strategy (OECD, 2006). This could address not only the cost of employment, but the unbalanced regulatory impact of current law. One promising approach would be to introduce a comprehensive new labour law (or set of only a few laws) that offers basic (moderate) protections to all types of workers and would not discriminate by size of enterprise. This law could improve statutory compensation for redundancy, provide for retraining and assistance in job search, thereby providing a balance between flexibility and security. If this law were to supersede the patchwork of existing laws and offer greater certainty and reasonable levels of compensation for dismissals, the cost of employment could perhaps be brought down enough to reverse the fall of the wage share and stem the ongoing expansion of the size of the informal sector. Efforts have been underway by the government in consultation with unions and employers to draft legislation that would offer some types of basic protections for the informal sector, including social insurance. If such vital consensus-based efforts are combined with a broad-based rationalisation of the EPL framework, considerable gains could be achieved for all workers.

Practical strategies are already being pursued and may be expanded, even if they are second-best

Given the slow progress in implementing the SNLC's reasonable recommendations since 2002, second-best strategies for carrying forward labour reform must and are being considered. These reforms are necessarily incremental, but may offer ways of demonstrating the benefits of better-crafted regulations, and thus pave the way for more comprehensive consensus-based reforms in the future:

- *Further reforms at the state level:* Reforms at the level of individual states are already occurring, as is documented in the state-level reform index. Given that the average value of the (count) index is only 21 out of 50, and the most reform-minded state only has a 28, there are many areas in which procedural or rule changes could be made at the state level to ease the burden of these labour regulations that raise the effective cost of labour. For contract labour, this is the route that has already been followed, with a considerable expansion of these arrangements in many states, although there remains ambiguity about when it can be utilised. In several other areas of labour regulation, there is even more that could be done, such as in rationalising inspections and streamlining union rules, which, for instance, still allow for a multitude of unions in an enterprise without clear guidelines for worker representation. While many of these reforms can be done without substantial central government involvement, states may feel restrained in what they are willing to carry out by the centre's policies. Moreover, Figures 6 and 7 suggest that the potential benefits of state-level reforms under the current framework may not be enough to actually reverse the ongoing decline in the labour share (or the shrinking of the formal sector), even if they may be able to stabilize it. Greater autonomy for individual states to make more significant legal changes to labour laws may be necessary, although this could require a constitutional amendment making labour a state issue rather than a concurrent one (see TeamLease, 2006). In the meantime, though, there would seem to be considerable scope for reform under the present governance arrangements.
- *Expansion of contract labour and fixed term contracts:* The ongoing expansion of contract labour (and potentially fixed-term contracts) is having a major impact on India's effective EPL stance,

economy, other abuses exist as well, including the use of child labour and even bonded labour (ILO, 2006). Restrictions on the Child Labour were strengthened in October 2006, when employment of children under the age of 14 as domestic servants or to work in hotels, restaurants, and shops was banned.

and contract labour's growth in popularity may serve to encourage its even more widespread use (see Anant *et al.*, 2006). With last year's clarification by the Supreme Court of the legal status of contract labour as distinct from regular employment, it is likely to be used even more widely, further reducing the share of the workforce facing the highest level of EPL. While this direction of reform is generally a move in a useful direction, the widening of the extent of differences in the degree of flexibility between different types of employees (workers and contractors especially) creates distortions that segment the labour force. A broader range of reforms would seem to be needed, initially giving firms clear authority to determine what types of work are suitable for contract labour. Even less distortionary would be greater use of fixed-term contracts for workers, which are allowed under revisions to central standing orders from 2003. Although half of states have issued similar enabling provisions, interviews suggest that businesses have only made limited use of these types of fixed-term contracts.

- *Provide labour reforms in demonstration areas:* The development of export processing zones (EPZs) and special economic zones (SEZs) has created an enabling environment for local experimentation and reform of labour laws in many states. In fact, three-quarters of states have granted general procedural exemptions for use of contract labour in EPZs and SEZs, although only four have made formal amendments to their legislation for such purposes, according to information provided by the Ministry of Law & Justice. To the extent that SEZs provide a demonstration effect on employment illustrating the benefits of less costly regulation, they may be useful in promoting more general reforms, despite the second-best nature of such partial reforms in relatively small jurisdictions. Already, the information technology and business processing outsourcing sectors (IT/BPO) have enjoyed such exemptions in virtually all states, and the benefits to this broad sector have been visible in its tremendous growth, although they remain a very small share of the labour force.
- *Enhance competition in product markets:* Recent examinations of OECD countries' experience with the political economy of structural reforms demonstrates a strong link between the extent of product market deregulation and the progress of trade liberalization and labour market reforms (Høj *et al.*, 2006). Such experience suggests that besides reducing tariffs and easing FDI restrictions, facilitating business entry and exit, lowering administrative burdens, and further progress on privatization would be useful in creating a more competitive operating environment that could make labour market reforms more politically feasible. In part, this feasibility reflects the fact that uncompetitive markets with high margin businesses make it easier for workers and unions to appropriate and sustain high economic "rents", which are present to a significant degree in India (see Dougherty *et al.*, 2008, Table 4). More competitive product markets and associated improvements in labour market conditions, on the other hand, can make reforms easier to undertake (Bassanini and Duval, 2006). In fact, the recent upswing in Indian growth, as well as the strong employment growth highlighted earlier, would suggest that now may be as propitious a time as any to make some serious attempts at labour reforms.

Box 2. Policy recommendations for labour market reform

- *Reduce barriers to formal employment:* redesign and moderate the framework for employment protection, making it neutral across different types of firms and employees. This would at least include substantial revisions to the Industrial Disputes Act, removing the most restrictive provisions that require prior government permission for employment termination and exit decisions. As an interim step, the threshold for government permission could be raised to 300 employees and then phased out over a several year period. At the same time, compensation for retrenchment could be raised from 15 days per year of service to closer to 45 days, coming closer to actual negotiated levels, as well as norms in the OECD.
- *Revamp, consolidate and simplify all labour laws:* reduce the number of labour laws to just a few simplified laws that provide *basic* legal coverage and protections for all employees, increasing fairness. Beyond this, decisions about how labour is utilized within the enterprise should be left to the managers of the firm. Provisions that interfere with such decisions should be removed (*i.e.* Section 9A of the IDA).
- *Improve labour market data:* move toward a quarterly small-sample labour force survey so that employment outcomes can be better assessed between large-scale National Sample Survey rounds.
- *Further state-level reforms:* states should accelerate their own labour reforms in all areas, including offering special treatment for Special Economic Zones, which will not only attract investment but also provide a laboratory for demonstrating the benefits of reform. Broadening the allowances for the use of contract labour and fixed-term contracts could also effectively reduce the overall level of EPL. While some central flexibility exists at present for states to make labour reforms, they would be aided through a constitutional amendment to shift the jurisdiction of labour regulation from a concurrent central-state to just a state issue. In the absence of such a provision, greater clarity from the centre for states to make amendments in specific areas should be granted (*i.e.*, for union recognition in a multi-union situation).
- *Lay the groundwork for future reform:* Further deepening of product, service and financial market reforms could improve competition and facilitate future labour reforms.

ANNEX 1.
STATE LABOUR REFORM QUESTIONNAIRE SUMMARY RESPONSES

Question	Andhra Pradesh	Assam	Bihar	Chhattisgarh	Delhi	Goa	Gujarat	Haryana	Himachal Pradesh	Jharkhand	Karnataka	Kerala	Madhya Pradesh	Maharashtra	Orissa	Punjab	Rajasthan	Tamil Nadu	Uttar Pradesh	Uttaranchal	West Bengal	Overall
Transaction cost-reducing actions																						
A. IDA																						
more than 21 days notice req'd under 9A	1.1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19
exemption given for some items	1.2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
additions to public utility list	2	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	18
amendments made to chapter VB (+/-1)	3	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	21
complete cessation is excluded	4	0	0	0	0	1	0	0	0	1	0	0	0	1	0	1	0	0	0	1	0	5
there is a time limit for raising disputes	5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	3
threshold for disputes not 100 (+/-1)	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	0	22
B. Factories Act																						
amendments to increase work hours	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
export units have exemptions	8	0	1	0	0	0	0	0	1	0	0	1	0	0	0	1	1	0	1	0	0	6
three shift working is allowed	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	21
women are allowed in shift working	10	1	0	0	0	0	1	0	1	0	0	1	0	0	1	1	0	1	1	1	0	9
deemed approval is allowed	11	1	1	1	1	1	0	1	1	1	0	1	1	0	1	0	0	1	1	0	1	15
license renewal longer than one year	12	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	1	1	0	1	0	7
C. Shops Act																						
provisions for shift working (under act)	13	1	0	0	0	1	1	0	1	0	0	0	0	0	0	0	1	0	0	1	0	7
more than 8 con't hours per day allowed	14	0	1	1	1	1	0	1	0	0	1	0	0	0	0	1	0	0	0	0	1	9
more than 48 hours allowed per week	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
more than 5 hours of overtime allowed	16	0	0	1	1	0	0	1	0	0	1	1	0	1	1	0	0	0	0	0	0	8
nightshift work is allowed for women	17	1	0	0	0	0	0	1	1	0	1	0	0	0	0	1	1	0	1	0	0	7
ambiguous answers to question	18																					
number of inspectors greater than one	19	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	15
captured in question 21	20																					
no provisions similar to 5A of IDA	21	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	18
D. Contract Labour Act																						
moves made to facilitate contract labour	22	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
licensing at local level	23	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	20
deemed approval is allowed	24	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	3
not req'd to amend reg if empl contractor changes	25	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	3
contract labour allowed in non-core activities	26	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1	0	1	1	1	1	17
freely allowed in EPZs and SEZs	27	1	1	0	0	1	1	1	1	0	0	1	1	1	1	1	1	0	1	0	1	14
provision for fixed term contracts	28	0	1	0	0	1	0	1	0	1	1	1	1	1	0	1	1	1	0	1	0	11
core and non-core clearly defined	29	1	0	0	0	0	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	5
contract employment allowed in IT/BPO	30	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	19
E. Inspectors																						
single annual inspection	31	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
authorization is required for surprise inspections	32	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	1	1	0	6
authorization is required for specific complaints	33	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	6
other moves to lessen inspection regime	34	1	0	0	0	0	0	1	1	0	1	0	0	1	0	1	1	1	0	1	0	10
F. Registers																						
common attendance register for different acts	35	1	1	0	0	0	1	1	1	1	1	0	1	0	0	0	0	1	0	0	0	9
common accident register for different acts	36	1	0	0	0	0	1	1	1	0	0	0	1	0	0	1	0	0	1	1	0	8
single inspection book	37	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1	4
computerized records are accepted	38	0	1	1	0	0	1	1	1	1	0	0	1	1	0	1	1	1	1	0	0	13
G. Filing of Returns																						
ambiguous answers to question	39																					
filing on a consolidated form is allowed	40	1	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	1	1	1	1	8
single format of various returns allowed	41	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	1	0	1	0	6
self-certification provision exists	42	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	0	4
measures to simply returns taken	43	1	0	0	0	0	0	1	1	0	0	1	0	0	1	0	1	1	1	1	0	8
single window procedure exists	44	1	0	1	0	1	0	0	1	1	0	1	0	1	0	1	0	1	1	1	1	12
H. Union Representation																						
minimum number of workers greater than 7	45	0	0	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	6
provision to restrict unions in enterprise	46	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
provision to recognize union as bargaining agent	47.1	1	0	0	1	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	8
ambiguous answers to question	47.2																					
minimum number of workers to support strike	48	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
additional restrictions beyond IDA to declare strike	49	1	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	6
code of conduct between unions and employer	50	1	1	0	1	1	0	1	1	1	0	1	0	1	1	0	1	1	1	1	1	16

BIBLIOGRAPHY

- ADB (2005), *Labour Markets in Asia: Promoting Full, Productive, and Decent Employment – Key Indicators*, Asian Development Bank, www.adb.org/documents/books/key_indicators/2005/.
- Ahmad, Nadim (2006), “A proposed framework for business demography statistics”, OECD Statistics Directorate Working Paper 2006/3, November, OECD, Paris.
- Aghion, Philippe, Robin Burgess, Stephen Redding, Fabrizio Zilibotti (2005), “The Unequal Effects of Liberalization: Evidence from Dismantling the License Raj in India”, NBER Working Paper No. 12031, February 2006.
- Anant, T.C.A. and O. Goswami (1995), “Getting Everything Wrong: India’s Policy Regarding Sick Firms”, in Dilip Mukherjee (ed.), *Essays in Industrial Policy*, New Delhi: Oxford University Press.
- Anant, T.C.A., R. Hasan, P. Mohapatra, R. Nagraj, and S.K. Sasikumar (2006), “Labour Markets in India: Issues and Perspectives”, In Jesus Felipe and Rana Hasan (eds.), *Labour Markets in Asia: Issues and Perspectives*, Asian Development Bank and Palgrave Macmillan, London.
- Ashan, A. and Carmen Pagés (2007), “Are All Labour Regulations Equal? Assessing the Effects of Job Security, Labour Dispute and Contract Labour Laws in India”, World Bank Policy Research Working Paper 4259, June.
- Autor, David H., William R. Kerr, Adriana D. Kugler (2007), “Do Employment Protections Reduce Productivity? Evidence from U.S. States”, NBER Working Paper No. 12860, January.
- Bassanini, Andrea and Romain Duval (2006), “Employment patterns in OECD countries: reassessing the role of policies and institutions”, OECD Economics Department Working Paper No. 486, June, OECD, Paris.
- Basu, Kaushik, Gary S. Fields and Shub Debgupta (2007), “Labour Retrenchment Laws and their Effect on Wages and Employment: A Theoretical Investigation”, IZA Discussion Paper No. 2742, April.
- Besley, Timothy and Robin Burgess (2002), “Can Labour Regulation Hinder Economic Performance? Evidence from India”, CEPR Discussion Papers No. 3260, March.
- _____ (2004), “Can Labour Regulation Hinder Economic Performance? Evidence from India”, *Quarterly Journal of Economics*, Vol. 119, No. 1, pp. 91-134.
- Bhattacharjea, A. (2006), “Labour Market Regulation and Industrial Performance in India: A Critical Review of the Empirical Evidence”, *Indian Journal of Labour Economics*, Vol. 49, No. 2, pp. 211-232.
- Borooh, Vani K. (2005), “Caste, Inequality and Poverty in India”, *Review of Development Economics*, Vol. 9, No. 3, pp. 399-414.

- Caballero, Ricardo, Kevin N. Cowan, Eduardo M.R.A. Engel, and Alejandro Micco (2004), “Effective Labour Regulation and Microeconomic Flexibility”, Federal Reserve Bank of Boston, Working Paper No. 04-6.
- CII (2004a), *Labour Reforms in Southern Region States – Issues and Concerns*, Confederation of Indian Industry, Policy Primer No. 3, April 2004
- (2004b), *Driving Growth Through Reform: A Comparative Analysis of Labour Practices in Select Northern Region States*, Confederation of Indian Industry, Northern Region, July.
- Conway, Paul and Richard Herd (2008), “Improving Product Market Regulation in India: An International and Cross-State comparison”, OECD Economics Department Working Paper No. 599.
- CSO (2006), *Employment and Unemployment Situation in India 2004-05*, NSS 61st Round (July 2004-June 2005), Report No. 515.
- Davis, Steven, John C. Haltiwanger, and Scott Schuh (1998), *Job Creation and Destruction*, MIT Press, Cambridge.
- Debroy, Bibek and P.D. Kaushik (2005), *Reforming The Labour Market*, Academic Foundation with Friedrich Naumann Stiftung and Rajiv Gandhi Institute for Contemporary Studies, New Delhi.
- Debroy, Bibek (2005), “Issues in Labour Law Reform”, in Debroy and Kaushik (eds.), pp. 37-76.
- Deng, Haiyan and Robert H. McGuckin (2005), “The Dynamics of China’s Labour Market: Job Creation and Destruction in the Industrial Sector”, ICSEAD Working Paper Series Vol. 2005-18, November, www.icsead.or.jp/7publication/workingpp/wp2005/2005-18.pdf.
- Dougherty, Sean M., Richard Herd, Thomas Chalaux, and Abdul Erumban (2008), “India’s growth pattern and obstacles to higher growth”, OECD Economics Department Working Paper, No. 623.
- Dougherty, Sean M. and Richard Herd (2008), “Improving human capital formation in India”, OECD Economics Department Working Paper, No. 625.
- FICCI–AIOE (2005), “Report of the Core Group on Restructuring Labour Policy”, in Debroy and Kaushik (eds.), pp. 265-84.
- GOI (2006), *Economic Survey 2004-2005*, Ministry of Finance, Government of India, <http://indiabudget.nic.in/es2004-05/esmain.htm>.
- Haltiwanger, John, Stefano Scarpetta, and Helena Schweiger (2006), “Assessing job flows across countries: the role of industry, firm size, and regulations”, World Bank, Policy Research Working Paper No. 4070.
- Hasan, Rana, Devashish Mitra, K.V. Ramaswamy (2003), “Trade Reforms, Labour Regulations and Labour-Demand Elasticities: Empirical Evidence from India”, NBER Working Paper No. 9879, August.
- Høj, Jens, Vincenzo Galasso, Giuseppe Nicoletti and Thai-Thanh Dang (2006), “The political economy of structural reform: Empirical evidence from OECD countries”, OECD Economics Department Working Paper No. 501, July, OECD, Paris.

- ILO (2006), *The end of child labour: Within reach*, International Labour Organisation, Geneva, www.un.org/aroundworld/unics/english/ilo_childlabour_2006.pdf.
- Kantor, Paula, Uma Rani, and Jeemol Unni (2006), “Decent Work Deficits in the Informal Economy: the Case of Surat”, *Economic and Political Weekly*, 27 May, pp. 2089-97.
- Malik, P.L. (2006), *Industrial Law: A Manual of Central Labour and Industrial Laws incorporating State Amendments with Rules, Regulations and Select Notifications*, Eastern Book Company, Lucknow.
- Micco, Alejandro and Carmen Pagés (2004), “Employment Protection and Gross Job Flows: A Differences-in-Differences Approach”, Inter-American Development Bank, Working Paper No. 508, www.iadb.org/res/publications/pubfiles/pubWP-508.pdf.
- Morrison, William (2006), “Case Study: Voluntary Redundancy Programs in India”, Paper prepared for the Workshop on Labour Issues in Enterprise Restructuring, Asian Development Bank, Manila.
- Mukherji, Joydeep (2006), “Economic Growth and India’s Future”, University of Pennsylvania Center for the Advanced Study of India, Occasional Paper No. 26, March.
- Nagaraj, R (2004), “Fall in Organized Manufacturing Employment: A Brief Note”, *Economic and Political Weekly*, 24 July.
- Narain, A. (2006), “Wage Trends and Determinants”, Paper written for the India Labour Conference and World Bank Report, *India’s Employment Challenge: Creating Jobs, Helping Workers*, World Bank, Washington, forthcoming.
- OECD (1996), *Job Creation and Loss: Analysis, Policy and Data Development*, OECD, Paris.
- _____ (1999), “Employment Protection Legislation”, in *Employment Outlook – Giving Youth a Better Start*, OECD, Paris.
- _____ (2003), *Economic Survey of Mexico*, Economic Surveys No. 2003/1, OECD, Paris.
- _____ (2004), “Employment Protection Regulation and Labour Market Performance”, in *OECD Employment Outlook*, OECD, Paris.
- _____ (2005), *Economic Survey of Brazil*, OECD Economic Surveys Vol. 2005/2, February, OECD, Paris.
- _____ (2006), *Employment Outlook – Boosting Jobs and Incomes*, OECD, Paris.
- _____ (2007), *Economic Policy Reforms: Going for Growth*, OECD, Paris.
- Purfield, Catriona (2006), “Mind the Gap – Is Economic Growth in India Leaving Some States Behind?”, IMF Working Paper No. 06/103, April.
- Roy, S. Dutta (2002), “Job Security Regulations and Worker Turnover: A Study of the Indian Manufacturing Sector”, *Indian Economic Review*, Vol. 37, No. 2, pp. 141-162.
- _____ (2004), “Employment dynamics in Indian industry: adjustment lags and the impact of job security regulations”, *Journal of Development Economics*, Vol. 73, No. 1, pp. 233-56.

- Sanyal, Paroma and Nidhiya Menon (2005), “Labour Disputes and the Economics of Firm Geography: A Study of Domestic Investment in India”, *Economic Development and Cultural Change*, Vol. 53, No. 4, pp. 825-54.
- Sharma, Alakh (2006), “Flexibility, Employment and Labour Market Reforms in India”, *Economic and Political Weekly*, 27 May, pp. 2274-85.
- Singh, Manisha G. (2006), “Labour Adjustment in an Evolving Marketplace: An Empirical Investigation”, India Development Foundation Working Paper No. 0603, May.
- SNLC (2002), “Report of the Second National Labour Commission”, in *Economica India Info-Services* (eds.), *Reports of the National Commissions on Labour*, Academic Foundation, New Delhi.
- Sundar, K.R. Shyam (2005), “Labour Flexibility Debate in India: A Comprehensive Review and Some Suggestions”, *Economic and Political Weekly*, 28 May, pp. 2078-85.
- TeamLease (2006), *India Labour Report: A Ranking of Indian States*, TeamLease Services, New Delhi, www.teamlease.com/TeamLease-LabourReport2006.pdf.
- Topalova, Petia (2004), “Factor Immobility and Regional Impacts of Trade Liberalization: Evidence on Poverty and Inequality from India”, *Three Empirical Essays on Trade and Development in India*, Dissertation, Massachusetts Institute of Technology, June.
- Unni, Jeemoi and G. Raveendran (2007), “Growth of Employment (1993-94 to 2004-05): Illusion of Inclusiveness?”, *Economic and Political Weekly*, 20 January, pp. 196-99.
- ____ (2005), “Trade Liberalization, Poverty and Inequality: Evidence from Indian Districts”, in Ann Harrison (ed.), *Globalization and Poverty*, NBER and University of Chicago Press, forthcoming.
- World Bank (2006), *India’s Employment Challenge: Creating Jobs, Helping Workers*, Poverty Reduction and Economic Management Unit, Report No. 35772-IN, forthcoming.

WORKING PAPERS

The full series of Economics Department Working Papers can be consulted at www.oecd.org/eco/Working_Papers/

623. *India's growth pattern and obstacles to higher growth*
(July 2008) Sean M. Dougherty, Richard Herd, Thomas Chalaux and Abdul Erumban
622. *Reaping the benefits of stronger competition in network industries in Germany*
(July 2008) Nicola Brandt
621. *The Usefulness of Output Gaps for Policy Analysis*
(July 2008) Isabell Koske and Nigel Pain
620. *Taxation and Economic Growth*
(July 2008) Åsa Johansson, Christopher Heady, Jens Arnold, Bert Brys and Laura Vartia
619. *Coping with labour shortages: How to bring outsiders back to the labour market*
(July 2008) Ekkehard Ernst
618. *Achieving sustainability of the energy sector in Canada*
(June 2008) Annabelle Mourougane
617. *The Dutch tax-benefit system and life-cycle employment. Outcomes and reform options*
(June 2008) Ekkehard Ernst and Timo Teuber
616. *Regulation, Allocative Efficiency and Productivity in OECD Countries: Industry and Firm-Level Evidence*
(May 2008) Jens Arnold, Giuseppe Nicoletti, and Stefano Scarpetta
615. *Public social spending in Korea in the context of rapid population ageing*
(May 2008) Randall S. Jones
614. *Enhancing the globalisation of Korea*
(May 2008) Randall S. Jones and Taesik Yoon
613. *Reforming housing and regional policies in Korea*
(May 2008) Randall S. Jones and Tadashi Yokoyama
612. *Moving towards more sustainable healthcare financing in Germany*
(May 2008) N. Brandt
611. *Improving education outcomes in Germany*
(May 2008) David Carey
610. *Have developed countries escaped the curse of distance?*
(May 2008) Hervé Boulhol and Alain de Serres
609. *Measures of international transport cost for OECD countries*
(April 2008) Stephen S. Golub and Brian Tomasik

608. *Encouraging labour force participation in Chile*
(April 2008) D. Contreras, L. de Mello and E. Puentes
607. *Tackling business and labour informality in Chile*
(April 2008) D. Contreras, L. de Mello and E. Puentes
606. *Delivery cost-efficient public services in health care, education and housing in Chile*
(April 2008) D. Contreras, L. de Mello and E. Puentes
605. *Managing Chile's macroeconomy during and after the copper price boom*
(April 2008) Luiz de Mello
604. *Avoiding the value added tax: Theory and cross-country evidence*
(April 2008) Luiz de Mello
603. *Oil Price Shocks, Rigidities and the Conduct of Monetary Policy: Some Lessons from a New Keynesian Perspective*
(April 2008) Romain Duval and Lukas Vogel
602. *The Contribution of Economic Geography to GDP Per Capita*
(April 2008) Hervé Boulhol, Alain de Serres and Margit Molnar
601. *Estimating a supply block for Poland*
(April 2008) Rafal Kierzenkowski, Patric Ollivaud, Franck Sédillot and Philippe Briard
600. *Product market regulation and economic performance across Indian states*
(March 2008) Paul Conway, Richard Herd and Thomas Chalaux
599. *Improving product market regulation in India: an international and cross-state comparison*
(March 2008) Paul Conway and Richard Herd
598. *Revenue buoyancy and its fiscal policy implications*
(February 2008) Isabelle Joumard and Christophe André
597. *Monetary policy, market excesses and financial turmoil*
(February 2008) Rudiger Ahrend, Boris Cournède and Robert Price
596. *Explaining differences in hours worked among OECD countries: an empirical analysis*
(February 2008) Sven Blondal and Jean-Marc Burniaux
595. *Fiscal policy in India: past reforms and future challenges*
(February 2008) Richard Herd and Willi Leibfritz
594. *The significance of Switzerland's enormous current-account surplus*
(March 2008) Peter Jarrett and Céline Letremy
593. *Interdependencies between monetary policy and foreign-exchange intervention under inflation targeting: the case of Brazil and the Czech Republic*
(January 2008) Jean-Yves Gnabo, Luiz de Mello and Diego Moccero