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2009

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MPRA Paper No. 52690, posted 22. January 2014 01:55 UTC

## **COST, RISK, AND LABOUR MARKETS: THE STATE AND STICKY INSTITUTIONS IN GLOBAL PRODUCTION NETWORKS**

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### **Abstract**

This article posits that there is no *a priori* reason that industrial upgrading and market expansion leads to greater social protections or better regulation. I ask three questions and attempt a conceptual framework for institutions and their broader spatial evolution. A firm's *regional risk ecology* ties in insightful ways for primary-secondary workers, insider-outsiders, and to the emergence of social protections. I propose a typology of *place, work, and work-place* institutions that mitigate risks and mediate costs. Industrial upgrading is a *work-place* based process; evolution of "informality", wider social protections, and labour regulations can be assessed accordingly.

JEL: Institutions, regulation, social protection, regional risk ecology, co-evolution, construction sector

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<sup>3</sup> This article represents my ongoing research and two broader projects on comparative social protections and industrial governance at the Technological Change Lab (TCLab) at Columbia University. For a comparative historical approach to issues presented here, please see Srinivas (2010) in *Theory and Society*, Vol. 39 (3-4). I am particularly grateful to Columbia University's Graduate School for Architecture, Planning, and Preservation (GSAPP) for funding support. The work has been recently awarded a grant from the Institute for Social and Economic Research and Policy (ISERP) at Columbia University which is also gratefully acknowledged. Prior versions of this article were presented at the ILO Global Production Networks and Decent Work workshop held in Bangalore, Nov 2007, and the Universalizing Social Protections in Asia meeting in Delhi, Feb 2008. Some sub-themes were presented at the Association for Collegiate Schools of Planning (ACSP) conference in Fort Worth, US, October 2007, and the Sloan Industry Studies Annual conference in Boston, April 2008. I have benefited from questions and clarifications of several participants at these venues. Mr. R.K.A. Subrahmanya has discussed several statutory issues in the past and provided a patient ear. Several unions and organisations in India have educated me about their challenges. I benefited from attending the summer 2008 discussion meetings in Bangalore on the proposed Social Security Bill in India organised by NCC-CL and others. I thank Andrea Yamartino for editing and Mike Kolber of TCLab for assistance with the bibliography. The article benefited from reviewers' comments, and I thank Anne Posthuma and Dev Nathan for inviting me to ILO meeting in Nov 2007, and for soliciting this contribution to the IJLE.

# 1 Institutions and Economic Development: A cost and risk approach

In amassing productivity efficiencies on the one hand, and redistributive equity to workers on the other, we paint a false picture of the supposed trade-off and the ways in which mediating organisations and institutional rules emerge, and the structural and institutional means by which workers enjoy social protections. The sentiment is laudable that unions and other mediating institutions might not just mitigate the adverse effects of development but in fact through social insurance act as a positive force for social cohesion and redistribution (Rodrik, 1997, 2001). However, the micro-foundations of such industrial relations and the issues of “informality” are anything but obvious.

This article therefore uses an institutional and evolutionary approach and posits that we have no *a priori* reason to believe that industrial upgrading will lead to greater employment numbers or employment quality as markets expand. I ask three questions and attempt a conceptual framework with relevance to local institutions and governance, and their spatial characteristics.

1. Do expanding sectoral markets necessarily lead to increased social protections and lowered risks especially for women workers?
2. How does domestic/export demand affect the cost and risk calculus of states and firms?
3. Can labour conditions in the better entitled segments percolate across/down to other rungs of the labour market?

I then describe a *regional risk ecology* of the firm that ties in institutionally insightful ways to segmentation theories for primary-secondary workers and insider-outsiders, as well as approaches to the emergence of social protections. I suggest a typology of *place, work, and work-place* systems of public and private industrial governance (Srinivas, 2010). Industrial upgrading can then be more specifically and narrowly termed *work-place* processes.

## 1.1 Understanding new Indian industrial institutions

India represents a case of a changing localised cost calculus with the relative responsibilities and politics of centre and states being continually negotiated, the ‘regionalisation’ of political parties and the shift from Congress-style circumvention of local politics, to Indira Gandhi’s national controls, and new forms today, the rhetoric of identity and universal politics of Bharatiya Janata Party, and the Bahujan Samajwadi Party’s incursions across the country, the relative collapse of traditional union organizing, and the rapid technological transformation of numerous service sectors..

Several changes have occurred in employment as well. First, within most sectors, considerable sub-national variation appears in social protection and training. While at first blush, government programs favour factory labour, several dispersed sectors and organisations have managed access to both social protection and training however piecemeal. Second, the strategies of

several intermediary organisations in balancing the supposed trade-off between increased productivity and heightened risk are not neatly aligned with the positions advocated by central trade unions. Third, neighbourhood-based organising is increasingly visible (again) in several sectors and cities; factory-based labour can no longer (if it ever did) provide the primary base or institutional rationale for organisation and bargaining. Similarly, class alone fails to explain social stratification in complex society such as India. Contrary to dominant notions of stratification and power, some of the most successful cases of organizing new risk-pools for insurance and micro-finance have come from women's and other organizations operating on alternate axes of solidarity

These changes are buttressed by a careful reading of social insurance and health insurance history which indicates that risk-pooling units and emergence of national welfare institutions can be quite diverse (Srinivas, 2010). Indian regional diversity further indicates that a one-size-fits-all approach to risk frameworks and institutions of risk-pooling is misleading. Varied identities of language, religion, origins in land use, caste/jati, and gender histories in the 'informal economy' complicate any simple narrative of solidarity in risk-pooling and tripartitism.

The State too, has been over-simplified in this discourse on social policy formation and labour flexibility in ways that are peculiarly ahistorical, given its conflicting roles (Srinivas, 2008a). In several theories the State is the institution of last resort in specifying cost structures, reducing transactions costs and mitigating risks. Nevertheless, it has several conflicting roles to play in industrial and employment domains of GPNs where geographically traded territories are increasingly complex. Labour market and social spending are linked in complex ways to the local state. Less visible older industrial institutions also provide food for thought. The labour inspectorate, for example, shows promise for institutional analysis through the study of (and pitfalls on the path to) broader inclusion (e.g. Piore and Schrank, 2007) and across Indian states such as Karnataka (Srinivas 2008b).

Conversely, many critical employment-intensive sectors (e.g. construction) are dualistic in structure, with only a smaller sliver highly traded and the rest domestic and highly reliant on local institutions. Conflicts within functions of the local state regarding trade can then act to reproduce inequality whether it be transmitted through labour-markets or social policy.

I thus turn to the relationship of GPNs to the risk and costs associated with changing local economic organisation.

## ***1.2 Global Production Networks: Macro and Microeconomic realities for risk and cost***

Risk is fundamental to the lives of individuals, families, and firms. At the national level, social protection can be said to comprise transfers, formal social insurance programs, and community-based initiatives. As such, social protection is conjoint with both social security and poverty programs and can involve formal systems of risk mitigation within the labour markets and territories of the nation state (Atkinson, 1991; Esping-Andersen, 1990). However, it can also include other forms of risk mitigation emerging from non-State institutions such as family, caste, ethnic ties or other "community". If we ask, as do Lund and Srinivas (2000), under what conditions workers in the "informal" economy, especially

low-income women, might have access to social protections, we would need to better describe the risks, the State's role, the entitlements sought, and nature of production itself; but first to GPN employment.

The GPN debate to date has been rather limiting, with a disproportionate attention to how export sectors can lift countries out of their current distributional doldrums. With the spread of "regulatory capitalism" of international standards (Levi-Faur 2005), much of the debate has been overly focused on trade and the World Trade Organisation (WTO). Ironically, localised institutions are critical in GPNs. Knorringa and Pegler (2006) and Humphrey and Schmitz (2005) indicate no automatic labour standards improvements despite productivity increases and better product markets. This focus on industrial upgrading alone is thus worrying for several reasons.

First, and most problematically, emphasizing industrial upgrading alone can incorrectly suggest that higher productivity rates might automatically lead to better wage and non-wage outcomes. However, power relations within value chains indicate that large firms may establish demand signals to suppliers in predatory ways and cost-reductions may stymie the ability of small firms to support welfare measures and especially women workers' ability to collectively negotiate for better conditions in diverse sectors (see Kabeer, 2004, Gibbon and Ponte, 2005). Moreover, social policy need not at all be a functional outcome of industrial changes. There is no universal or inevitable path to social policy and welfare regime formation in industrialization (Srinivas, 2010).

Second, important labour market intermediaries are often demonised as exploiters of piece-rate and casual workers (which they undoubtedly can be), but their role as possible diffusion agents of social protection programs and registration of workers has been less investigated as has their relationship to land institutions and land reform.<sup>4</sup> In construction, a sector with direct relationships to labour and land, the role of the sub-contractor is well documented. However, his role in worker registration (and it almost always is a man) needs further documentation..

Third, in terms of the dichotomous buyer-driven and manufacturer-driven GPNs, no simple solutions for social protection present themselves because the spatial division of labour *within* nations continues to matter. We could hypothesize that for a high spatial division of labour and dispersed working population there is increased difficulty in negotiating and providing social protections for coordinating organisations (e.g. unions, NGOs, State). Several institutional questions of coordination, participation, and risk-pooling emerge. Moreover, the higher the export-orientation and greater the spatial dispersion, the more it is likely to be 'sweated.' Within each GPN, there is therefore no obvious 1:1 correlation between market expansion and labour benefits; newer real-world approaches by grassroots organisations and unions to flexible work and portable benefits are far less understood. These diverse strategies include a focus on skills and technology design, asset insurance, occupational health and health insurance, and prescription drug, disability and maternity benefits. These new forms of localised governance emerge in diverse ways and through identities at least partially divorced from (or certainly in addition to) labour status. Importantly, these local institutional forms emerge long before they are institutionalised into national labour and social policy.

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<sup>4</sup> An exception is the work being done in several Indian states by microfinance and non-banking finance organisations in using existing institutions and actors to diffuse new financial instruments, agricultural and production technologies.

Fourth, international policy incoherence among development agencies further underscores the need to look at local institutions in GPNs. Despite the fact that global markets and international trade are treated effectively as a development package and a new development agenda, there is very little investigation to date of policy coherence between the different Uruguay Round Agreements and their labour impact. The welfare implications are particularly poorly investigated with respect to technical standards of various kinds. Given the explosion in standardisation –voluntary and mandatory, both public and private, *de facto* and *de jure*-worldwide, the line between ‘voluntary’ and ‘required’ products and process upgrading is becoming ever more blurred, and the pace of change between the former to the latter quite rapid. With these types of standards, new forms of work organisation, materials, techniques and norms become embedded in industrial production and manifest as pressures within firms and industry associations to adapt local production to industry or international standards. The technical standards debate needs estimations of upstream costs, closer to local production in many low-income and middle income industrialising countries and less downstream at the export-interface because many countries are not large exporters (Srinivas, 2005).<sup>5</sup> Almost 90% of the world’s construction sector is nationally based and highly localised. Its upstream domestic segment has high employment, and is embedded in urban development politics and rapid technological developments in materials, skills, and work organization. In particular, the upgrading differences between ‘harmonisation-necessitated’ and ‘needs-necessitated’ standards has been relatively understudied (Ibid.) as have the emergence of specific commodity conventions and their labour impacts (Raikes et al., 2000).

For these several reasons, and because global production is enmeshed in a series of market and non-market relations, the “network” component of GPNs embodies the wider context of actors, institutions and policies that shape the nature and trading relationships within the GPN. I refer to this network element as the *regional risk ecology* of firms because it moves beyond *networks of firms*, better describes the language and institutions of costs and risks facing firms and workers, and better accommodates the social norms that permeate the shared network of firms and other institutions. Power relationships within global value chains alone, focused as they are primarily on economic transactions and on firms, may not necessarily be able to do so.

## 2 The Regional Risk Ecology of dual and segmented labour

These local institutional foundations of industrial upgrading in GPNs are worth exploring because most Indian workers lie outside the realm of social protections, and they and their families (depending on lens, gendered in varied ways), not firms nor the State, buffer most of the cost and risk. My focus here is to provide alternate frameworks for coalescence of risk pools and the role of the State. The question is whether expanded market access in the Smith-Hicksian sense affords workers, firms, and States any heightened ability to craft social policies or invest in training. The de-linking of wages from productivity, and the linking of wages to power and social norms of various types, re-focuses our attention on the emergence of social protection, risk-mitigation and risk-pooling in diverse

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<sup>5</sup> In construction, garments, and food processing, technical standards are pervasive and quality/cost tradeoffs acute. Female composition is high; women stand to lose the most without training in the shift to mechanization.

organisational settings. These may be reflected in the division of labour within factories set amidst dispersed home-based workers, or to networked industries within urban slums.

I therefore suggest that the *regional risk ecology* of the firm ties in institutionally insightful ways to both segmentation theories of core-periphery and insider-outsider, as well as the emergence of social protection. In particular, a typology of *place, work, and work-place* systems of public and private industrial governance can be useful. Industrial upgrading and its benefits are more specifically *work-place* processes. Through risk-mitigating and pooling institutions, work-places connect by direct or indirect cost-sharing with wider territorial entitlements (*places*) if they exist (e.g. residency, citizenship claims) or with labour entitlements (*work*) independent of work-place links (as for home-based workers or administered other than through work-places) (Srinivas, 2010). The typology might open up some opportunities to discuss why segmentation emerges, evolves and persists, and how systems of universalisation might become visible that accommodate different kinds of women workers. These would spatially complement and expand existing welfare and risk typologies within welfare capitalism and beyond (Esping-Andersen 1990, Wood and Gough 2006) and explicitly take on risk and cost in local governance. It also provides a context in which a broader set of actors and institutions beyond firms and states have always provided and continue to provide social protections in many countries today. Late industrial economies may find these alternate risk-mitigating institutions difficult to consolidate and scale-up (Srinivas, 2010).

In both the Smithian and Hicksian formulations of markets, benefits accrue to workers through presumed specialisation of workers in work-places. In some dual and segmentation labour market models, market expansion implies that firms buffer risk of fluctuating market demand through their strategic use of 'primary' and 'secondary' workers (Piore, 1980, Doeringer and Piore, 1971, Sabel 1982). When markets expand, a firm is more likely to draw workers into the 'core', and thus presents an opportunity for workers to negotiate to decrease the firms' risk portfolio. Such a firm is more likely at such times to invest in social insurance or training to better able workers to cope with the production pressures of increased market demand (pressures may also include higher accident rates). Some workers may transition entirely from "periphery" to "core".

The insider-outsider approach of Lindbeck and Snower (1986) provides alternatives. As Piore (1980) indicates, in the face of increasing market demand, firms may be willing to support social policies that governments propose or even initiate these themselves. Thus, despite rapid technological changes and having to bear the associated costs, including that of managing and supervising workers, the overall gains to firms may be sizable when new markets open up. However, the relation of the division of labour, and the spatial division of labour at that, to cost structures and then to health insurance, training, or maternity supports is not obvious. The challenge is for firms to provide more employment and protections to workers. Lindbeck and Snower (1986) emphasise that involuntary unemployment arises out of conflicts of interest between insiders within the firm and outsiders (the periphery, those who remain unemployed). Importantly, while efficiency wage theories are directly linked to productivity of workers, neither the internal labour market, nor insider-outsider approaches assume a direct effect of wages on productivity.

Having this brief background in place, let us visit the Indian economy and the construction sector, then return to 'sticky' institutions that complicate the causal story of becoming primary or secondary, and how insiders and outsiders are determined (and by whom).

## **3 The Indian industrial economy**

### **3.1 Structure and institutions**

Dualism and segmentation in India is characterised predominantly by employment in "non-formal" enterprises, self-employed, and own-account work. The size characteristics of manufacturing create a peculiarly dualistic mode of work in terms of technologies and entitlements. Furthermore, differences in productivity at the two ends of the labour market are particularly notable, far more so than in other countries such as Japan that also saw large firm size disparities in employment profiles (Mazumdar and Sarkar, 2007). In manufacturing, troubles in productivity growth rates are seen in the divergent patterns of very small and large enterprises (Ibid.). However, higher productivity gains at either end do not necessarily lead to social protections of workers in either manufacturing or services.

In both manufacturing and services, work-place labour market effects must be studied against a wider institutional ecology. Too often, labour market studies have been too narrowly focused on firms relative to other institutions. This blinkered view has led to over-reliance on single, statutory institutions and towards mono-causal explanations of wages. For instance, in an economic study of manufacturing growth between 1958 and 1992, Beasley and Burgess (2004) noted that when Indian states modified the Industrial Disputes Act to be more labour-friendly in the formal (i.e., manufacturing) sector, they experienced lowered output, investment, employment and increased urban poverty. As Sharma (2006) notes, the fixed effects in their study are debatable and too much attention has been focused on the Industrial Disputes Act, 1947 and the Contract Labour (Regulation and Abolition) Act, 1976. Instead, policy and firm efforts should focus on a more integrated view of the labour market. Furthermore, the heterogeneity of firms requires a broader view: notably that employment potential continued to be highest for the smaller firms in the 1990s, and employers of 10-19 and 20-49 workers provided employment growth of approximately 6% per annum, followed next by those with 50-99 workers (Deshpande et al. 2004).

The institutional diversity between formal and "informal" employment and beyond firms is also necessary. On the one hand, expansion of work opportunities has increased alongside the overall decrease of waged employment in many manufacturing sectors. Self-employed women workers decreased over the twenty-year period from 1970-1993/1994 while, as with male workers (but at lower rates), there was an increase in casual employment (Ibid.) Relative to male workers, women actually saw an increase in waged employment however debatable the wages or working conditions. This "organised informalisation" (Kundu, 1999) benefited women in some respects, but its long-term consequences remain unclear. On the other, the state continues to be an important provider of waged employment alongside its own "informal" hiring and casualisation in both manufacturing and service sectors. Formal employment in sectors such as construction dropped in part due to public sector restructuring, raising questions about the role of public employment and public research supports in the sustainability of GPNs. Finally, the relationship, or lack thereof, between wages and productivity has



important gender implications and requires institutional explanations alongside structural ones. While in some sectors wages increased at micro-level (consistent with insider-outsider approaches), new relationships between formal and informal employment and new outsourcing strategies, have made more complex existing studies of productivity-wage links.

### **3.2 The construction sector**

The recent high economic growth patterns have been reflected in immense changes in industrial and urban service sectors such as construction. For example, while manufacturing employment in India had % annual growth rates of 5.10 in 1972-1973 to 1977-1979; it declined to 2.05% in the 1993-1994 to 1999-2000 period. In the same time periods, employment in construction grew from 1.59% to 6.61% (Papola, 2007). Construction is disproportionately domestic in India with a small layer of design and engineering firms that are part of GPNs. This reflects the worldwide trend where over 90% of the sector is domestic. Low and middle-income countries produce only 23% of world construction output but 74% of the sector's employment (ILO, 2001).

In India, so-called skilled workers make up 8% of the total population, semi-skilled 13%, and unskilled 79%. The role of the *maistri* or contractor is critical in several respects. Women workers constitute almost 30% of the Indian construction sector and almost all of them are characterised as unskilled and engaged in manual labour, and are the least likely to use machinery or receive training in order to move into non-manual or less hazardous work (GOI 2002, p. 70, Subramaniam, 1982). While the national industrial average percentage of women in casual labour is closer to 75%, women constitute a disproportionate 98% of casual workers in the construction sector (Deshpande and Deshpande, 1998).

The period of the 1970s heralded in immense labour hiring under relatively standardised conditions dictated by cement, the technology of use. Low-skilled workers, especially women, were easily brought in as markets expanded and firms hedged their risks against market fluctuation. This work was precarious but employment grew. At the end of the decade, several cities in India experienced severe cement shortages and each was the site of a differentiated labour and unionizing effort. The cement shortage forced a dramatic slowdown in building construction. The residential housing market was particularly hard hit forcing millions of construction workers to lose their jobs. While the early 1970s had been the site of organising in several Indian cities in the wake of the textile mill closures, other cities were forced to contend with severely rising construction joblessness. The sector had been the easy conduit for millions of low-skilled jobs, and the sectoral recession made alternate avenues of employment hard to find.

The last decade's relatively high labour demand has not translated into notably better conditions of work or clearly discernible specialisation of technical skills. The larger market size has occurred at a time of increased subcontracting and different arrangements of risk mitigation by firms and workers to buffer market demand and spread costs. Certain workers such as painters and stone masons have asked and received high wages during the boom. Immense inter-state migration to cities and towns with large construction sites has however muddied the transportability of social protections such as health insurance, provident funds, life insurance or maternity benefits, for both high and low-wage groups. Several conflicting labour laws on contract, migrant, and other categories has further

complicated the picture. The *maistri* continues to play a critical role in technical compliance but also in training, registration of workers, as a conduit to social security benefits, and in labour inspection and enforcement. There is some evidence that *maistris* are important intermediaries in health and safety training and the spread of health insurance. However, since workers can be over-dependent on the *maistri* for job information and availability he can also act as a considerable obstacle in securing access by unions and NGOs to workers (Srinivas 2008a). He plays a critical role in establishing training programs along with engineers and polytechnics, but these may continue to be exclusionary to women workers in several respects. A fundamental challenge is that traditional tripartite structures in practice can often exclude the *maistri* since he is seen as a contractor and employer. In reality, the *maistri* plays the role of self-employed, contract worker, and risk-taking intermediary himself.

Construction workers have tenuous existing relationships with registration to social programs and experience a continuing disincentive in future contributions. This persists despite (or perhaps because of) the fact that there are over ten separate labour laws relevant to construction work. Sector-specific legislation has been available for a decade i.e., The Building and Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996, and even an Act to regulate the public financing of the Welfare Funds (The Building and other Construction Workers Welfare Cess Act, 1996). The 1996 legislation had several potentially useful mandatory features from: First, the provision that employment of a safety officer was mandatory on all construction sites; second, that Construction Labour Boards were mandatory for health, safety, welfare, and training of construction workers, and third, a mandatory levy on all construction works through an earmarked tax to finance social protection schemes for construction workers. Some southern Indian states such as Kerala and Tamil Nadu have had some success through Welfare Funds which display institutional innovations (but administrative difficulties). Tamil Nadu's construction Welfare Fund for example, had attempted to create one system to assist all workers in the sector without reference to casual work status or firm size. Unions, NGOs, and public bureaucrats from Tamil Nadu have also been very active in the National Campaign Committee for Construction Labour begun in the 1990s. In the state of Maharashtra, the Mathadi workers (head-load workers) have achieved some considerable success in instituting benefits and secured judicial support for enforcing state compliance with existing legislation. Yet, while these various nascent processes to institute and expand social insurance exist, they are far from a serious universal Indian or even regional effort. If that is a goal, then one can remain optimistic. In other parts of the world, similar sub-national experiences have sometimes evolved into national social insurance and social security regimes.

Public finance and institutional design and history have path dependencies of their own. While both central and some state governments administer their own Welfare Funds, the central government's Fund was administered on a non-contributory basis without linkage to the individual worker. In notable contrast, both Tamil Nadu and Kerala crafted early contributory schemes. The contributory programs did more than enhance revenues for the Funds; scattered evidence indicates that worker contributions enhanced the drive for registration, education regarding health and safety, and to pressures for more accountable administration and delivery. Sub-national schemes appear to have greater mobilisation potential than the Central Fund (Srinivas, 2001). Yet, several institutional peculiarities exist between central and state-level distribution of financial and management responsibilities. The central government public works departments were exempt from paying into the

state scheme even though the Tamil Nadu Public Works Department did contribute. Even in early evidence, nearly 200,000 workers were registered and most making contributions within three years of the commencement of the Tamil Nadu Construction Workers' Welfare Fund in 1994 (Ibid., AITUC/ILO, Government of Tamil Nadu 2000)<sup>7</sup>. The Yeshaswini scheme in Karnataka has also seen a surge in membership and recent efforts by the Karnataka inspectorate show some expansion of registration of workers into social benefit schemes<sup>8</sup>. These need further documentation to contribute to realistic policy-making on better working conditions and benefits.

## 4 Sticky institutions

### 4.1 Risk-mitigation and -pooling in places, work, and work-places

Institutions are not restrictions on the function of the labour market. They are the elements and customs that make labour markets work as they do, shaping both supply and demand. The need to understand if and under what conditions workers become integrated into a 'core' brings us to the issues of "stickiness", a bi-causal relationship between work status and social protections. If access and wages are custom-determined more than supply and demand alone and power and social norms determine how the conflicts of interests between insiders and outsiders are resolved, then those norms are worth studying that permeate the regional risk ecology of firms which correlate bundles such as training and wages with social insurance,.

The region here becomes far more than passive backdrop for firms, and its risk ecology the starting point to explore GPNs. Firms buffer market risk and workers structure benefits and risk-pooling between several different organisations beyond the firm alone. Bargaining by workers is then no simple correlate to sectoral market expansion and related industrial upgrading, but mediated by social insurance and health insurance systems. Unlike most industrial models which allocate prime (sometimes sole) importance to the firm, a dense largely non-commodified economy with vast unemployment and underemployment as in India has additional features. This is a society with deep social ties, distinct cognitive bounds of group identity, and multiple forms of segmentation and stratification.

In Lindbeck and Snower's approach, there is little need to call on government regulation as explanation for wage structures, although they may well worsen the schism between insiders and outsiders. In particular, they may strengthen or weaken the role of unions which provide insiders with particular strengths, thus ensuring that firms continue to bargain with unions rather than go to unemployed outsiders. For example, unions may increase the costs of hiring and firing through severance pay or non-wage benefits, they can increase cooperation and harassment activities with firms, and can also increase leverage through strikes or other protest.

I argue that if social protections such as insurance and wider risk-pooling are included in this mix by institutions other than firms (for example, unions or families), then the costs to firms to continue

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<sup>7</sup> The program also included maternity benefits and some costs towards abortion, and some financial support for weddings.

<sup>8</sup> See Srinivas (2008b) on how the Karnataka labour inspectorate in expanding its tradition purview of inspection and compliance with social security provision.

negotiating undergo a change. Firms may be more or less willing to hire outsiders if the negotiated cost to them is equally or disproportionately borne by the regional risk ecology of other institutions. The correlation of low access to technology and training with low social protection then raises questions of causality. Workers considered 'permanent' may have no actual formal contract thus muddying boundaries of periphery and core or insider-outsider, and complicating any Lewis-style unlimited supply transition. Others may have access to skills training but not health insurance. To further compound the issue, many firms that provide health insurance effectively consider the worker to be in the core creating a chicken-and-egg situation for the worker's status vis-à-vis contracts and/or benefits. As long as more traditional unions are focused on formal work arrangements at the work-place or on limited forms of contracted work away from the work-place, 'insiders' are limited by definition and numbers. However, if social protections, training, and wider risk-mitigation and pooling are provided by other organisations and institutions to 'outsiders' then the costs to enter the work-place may in fact be substantially reduced. In other words, does social protection's provision of entitlements define labour status, or the other way around?

This approach to stickiness in flexibility is especially important because India's social and health insurance history has been problematic in many respects, as have meager options for education and training. Estimates indicate only 5% of the youngest, most dynamic category of the Indian working population between 20-24 years receives any form of vocational training, compared to 96% in Korea and 28% in Mexico (GOI, 2002, p.15) The Indian Trade Apprenticeship Act 1961, is only crudely linked to actual labour supply and demand, is highly administratively cumbersome, and is substantially more useful for larger enterprises which can train in-house or tolerate an ongoing cohort of apprentices. For most small and micro-enterprises, the ability to sustain a cadre of apprentices in parallel to production operations is highly curtailed by several features. Even the existing seats for training under this Act have been heavily underutilised by firms at both central and state levels and in public and private domains of the economy.

Institutional details beyond statutory policies remain critical in construction sector for studying "informal" work and access and mobility of benefits. Even where social security programs have been available to what India terms "unorganized" workers, many workers have opposed contributing to registered accounts with statutory bodies such as the ESIS. This is primarily because of the latter's inability to assure continuance or proper transference of their registered accounts when they inevitably change jobs or migrate and their contributions lapse. Many construction workers perceive this as indirectly benefiting primary organised sector workers with longer-term and more formalised contracts. Thus, the administrators of formal social programs can worsen the schism between the two categories of workers by inadvertently or deliberately cross-subsiding more protected workers from the contributions of those less so.<sup>9</sup>

As mentioned, industrial upgrading (and through global production networks) exist primarily in the political and social realm of *work-place* spillovers. Given the scale of infrastructure investments in many industrialising countries, and the municipal and regional challenges in administering these, construction employment and social protection provide a potential New Deal. Improvements in the

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<sup>9</sup> Srinivas 2001, and personal communications with labour organisers and social security scholars in India.

sector must be therefore judged within its spatial and institutional features of non-traded, traded, and globally networked production. New models of industrial relations are in turn shaped by the effort by several newer actors to create benefits programs of social insurance and health insurance. These may demarcate territorial risk coverage (place) or those based on labour status (work) and employer-dependent benefits (work-place). For example, significant international differences in women's labour market participation exist (ILO, GETM, 2006). In South Asia there was little change in female labour force participation rates as a whole, but Indian women workers entered several sectors in larger numbers. This increase did not correspond to any notable increase in pension programs, health care, or insurance because most entered employment without work-place benefits. In the same decade however, diverse social programs and work-place training emerged from the state, NGOs, and unions, but struggled to be institutionalised into wider welfare regimes. While women's labour force participation rates have been increasing slightly in manufacturing, women have been participating in 'formal' employment in lower rates than men. With the explosion in urban services (most often low entry barrier sectors such as construction), women's rates of employment have visibly increased in many precarious, least protected types of work. These jobs are often manual-intensive and less likely to provide career advance and formal skills training.

The limited benefits spilling over to workers from industrial upgrading in construction demonstrate how work-place processes must be situated against place-based, and/or work-status based systems. This is particularly important in such a spatially dispersed and migrant-filled sector. The health and social protections afforded to workers in the sector over the last several decades must be situated against a broader and more dismal baseline of health status for workers and non-workers alike. Despite some notable successes, India has striking regional imbalances in its health scenario, an aging population, one of the lowest public budgets on health and training (health is approximately 1.15% of GDP) and one of the highest levels of private spending on health in the world (the Public Health Foundation of India estimates this at approx. 81%).<sup>10</sup> The Planning Commission (2002) estimates that less than 10% of the population was covered by some form of health insurance, even if it accounts for 30% of hospital revenues in the main metropolitan areas. Social insurance, with mandatory wage-based contributions from workers covers approximately 30 million or 3% of the population. The existing State approach to coverage has limited expansion beyond this. Several newer programs aiming at varying levels of universalisation have emerged in several states.<sup>12</sup> Their future expansion is unclear, but they force us to think carefully about how rules for coverage are crafted by the State and third-party groups.

The regional risk ecology of firms thus displays the sticky behavioural and associational features of institutions that mediate market participation and mitigate risk and cost-sharing. This will be further analysed in the next section on Indian worker registration. These sticky institutions have distinct gendered characteristics (as does risk-pooling), and act substantially outside the realm of the tripartite

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<sup>10</sup> Several of these statistics are obtained from Plan documents and from the Indian Health Policy workshop that the author attended in Sept 2007, where several documents were presented,

<sup>12</sup> Janani Suraksha Yojana, Chiranjeevi Yojana (maternal health) and a Universal health insurance scheme (e.g. Andhra Pradesh's Rajiv Arogyasri).

mechanism. Alternate strategies of analytical enquiry are evidently called for about the origins and pace of institutionalisation.<sup>13</sup>

## **4.2 Inspection and Registration: Gate-keeping institutions**

While Indian electoral democracy is alive and well in many respects, large-scale political mobilisation by political parties whether or not on caste and class grounds, has not translated into a universalist social protection agenda. Consequently, registration of establishments and workers into social protection programs such as health or social insurance provides us a means to understand the rules and customs by which wage and non-wage elements become instituted within the labour market.<sup>14</sup> These matter for determining the scope of regulation and enforcement and better describing “informality”, but more broadly for monitoring and the institutional design of economies (see Sabel 1994, 1995).

Drawing from several meetings in the summer of 2007, some interesting features become visible.<sup>16</sup> Most organisations representing workers outside statutory protections appear to have no unifying strategy for addressing either social policy or labour market strategies. They differ between and within states regarding which economic issues are the most pressing. While all appear to share the commitment to addressing systemic exclusion of informal workers from various benefits, they differ widely on work or work-place benefits (via employers, or via designing in diverse work sites), universal benefits (via taxed redistribution through the State), or place/area-based schemes. The divergences in strategies of place-based programs exist at regional, i.e., sub-national state level, but also localised within cities and across neighbourhoods. With the ideological opposition to the state (at all levels) voiced by some, there was little offering at these meetings conceptually or practically to possible design alternatives. With most present at the meetings drawing on past histories within the formal trade union movement or coming from several *morchas* or *sanghas*, the claim on the state apparatus for social benefits was intertwined with the primary practical challenges of registering workers. While some rhetoric continued to be strongly Marxist, of co-optation, or state collusion with capitalists, the actual logistical stances taken were fairly pragmatic about how to proceed with registration and to boost union membership. By the very stepping away from wage to several non-wage issues such as health, safety, and training, these newer organisations have found alternate paths to engage the state outside the collective bargaining framework. Increasingly, several organise neighbourhood by neighbourhood, not by work-site alone, although in some cases these strategies overlap.

A working hypothesis is that registration (a gate-keeping institution) limits workers’ participation in social insurance (a risk-pooling institution), and this in turn depends on several behavioural modes of labour inspectorates and welfare board “street-level” bureaucrats. Understanding the link between these three provides us a way forward in articulating associational behaviours beyond the tripartite

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<sup>13</sup> ee Frontline, India article, July 2007

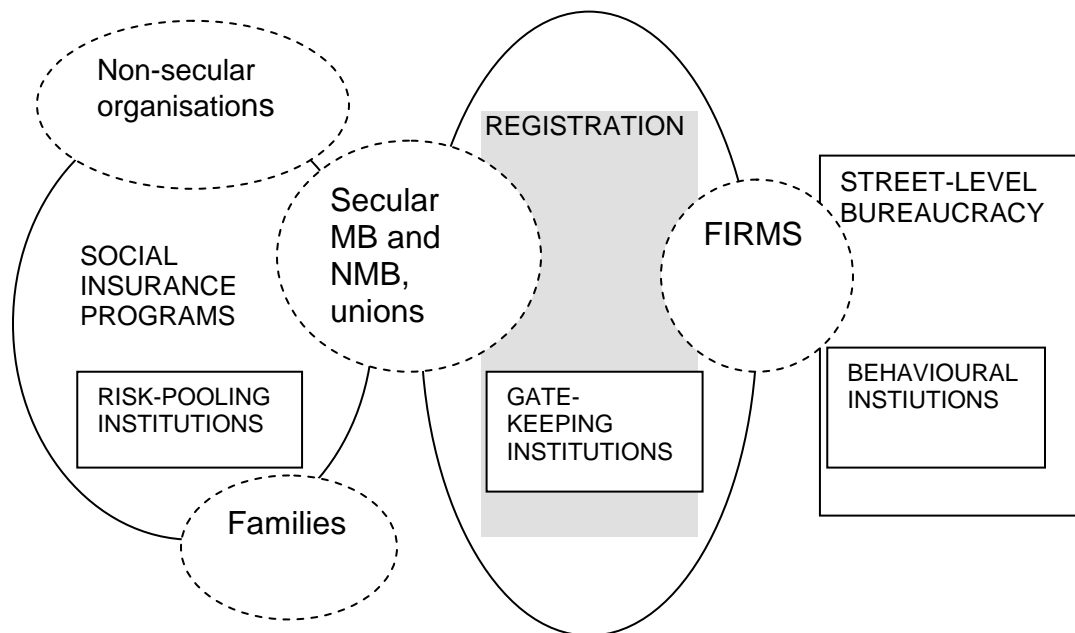
<sup>14</sup> Observations of the labour inspectorate’s importance in differentiating between Anglo-American and Franco-Iberian systems of labour governance for example are already available (Piore and Schrank 2007).

<sup>16</sup> In particular, the NCC-CL meeting and discussion on the proposed NCEUS Social Security Bill in Bangalore. I am grateful for discussions with Mr. Manjunath, Deputy Labour Commissioner, Karnataka Labour department, Mr. R.K.A. Subrahmanya, former President of the Social Security Association of India and several conversations with participants.

structures of formal industrial relations. This lets us better grasp how other risk-pooling institutions within the region (such as guilds, families, unions, and even self-help groups) might have quite distinct gendered gate-keeping institutions that do not permit state-sponsored social protection to evolve in a linear fashion. This allows for a broader regional ecology of welfare institutions including caste and jati groups, religious organisations, and secular NGOs. For centralised trade-unions, enumeration of workers may potentially swell the ranks of unionised workers, but may also increase tensions of how many workers to allow into the potential labour pool.

The figure below shows a quick schematic of the three institutional types: risk-pooling, gate-keeping, and behavioural norms/street-level institutions. Non-secular organisations may exist to mediate registration and access to insurance with broader allegiances than the work-place alone, and secular member-based (MB) and non-member based (NMB) organisations may do likewise but represent different philosophies and polities.

**Figure 1 GATEKEEPING INSTITUTIONS**



The dotted circles indicate hypothesized organisations with significantly different internal rules about “primary” and “secondary” workers and mechanisms to include or exclude them.<sup>17</sup> These shape the everyday behavioural norms and bounds of action of street-level bureaucracy and other line agencies of the State. These behavioural institutions that delimit or filter the transition from “informalisation” to “formalisation” are tended to by the gate-keeping function of registration. It is highly localised, spatially distinct from one region to the next, and as we see later, can be described as a series of norms in the making, or a process that is *ex-ante* open-ended. Registration of workers need

<sup>17</sup> Behavioural institutions apply to families as well, but are specifically mentioned here with respect to the inspectorate and the execution of its mandate.

not necessarily lead to systematic registration of workers into social protection programs. It does mean however, that (a) once registered workers are more likely to access social protection programs through further registration, and (b) are more likely to “open the spigot” and transition workers from periphery to core. If other informal risk-pooling institutions are very efficient in this working model of the firm’s ecology, they effectively change the costs to firms to transition workers. It becomes cheaper to let workers directly buffer the risks outside the firm through their own (non-statutory) arrangements. Firms then move in this picture to a point where, for existing market volatility, they find a new transient local optimum. This is particularly useful in reconsidering the historical record. The institutional emergence thus depends on several factors, but is rooted in uncertain futures and the differential impact of national and global effects (Sotarauta and Srinivas 2006). For the people involved at street-level, these are both rational and moral dilemmas to be interpreted and resolved, and new cognitive boundaries to explore identification of workers, and their own self-identification (Srinivas 2008b). Work-relations are inevitably governed by non-work social relations. In Karnataka, rapid technological changes in several sectors in Bangalore city appear at first blush to be enlarging the scope of work-place concerns of inspectors to those outside the work-place, to the families and social context of their non-working lives (Ibid.). Jan Breman (1985) describes this particularly well when he speaks of the conflicts of the inspector on the one hand, his sureness of his role on the other, the remarkable power of the inspector over workers and their broader social relations.

Where unions regulate sector entry, enumeration has mixed blessings. Registration of ‘informal’ workers, especially women, may be seen in some cases to dilute the union’s efforts for more formalised workers. While in principle, such workers cross-subsidise the pool of benefits by paying into the system, they are unable to withdraw benefits as is the case for Indian casual workers paying into Provident Fund schemes. The interlinkages between registration, inspection and training are also visible in other ways. Organizations can also be innovative in straddling the three institutional domains of registration, inspection/enforcement, and training; LabourNet in Bangalore uses a job-exchange model combined with worker and *maistri* training, assists in registration of workers, runs health/safety education programs, and offers health insurance programs. As such, they have now gradually transformed the dynamics of a portion of the building trades.

The bi-causal relationships between employment status and social protections is tied in with training and social security benefits in central ways. Risk-incidence of the sector and firm size are important characteristics in support of social insurance adoption (especially accident insurance) if not unemployment benefits (Mares 2003). Firms are more willing to pay attention to health and safety and consider providing health insurance coverage for workers when they can be assured of skilled workers, high quality output and lowered accident rates. However, national context is a necessary but insufficient explanation for sectoral and firm variation in social protections. In low-risk sectors, firms attempt to lower costs by opting out of social insurance and preferring state-instituted social assistance as necessary. On the other hand firms operating in a high-risk accident-prone sector, are more likely to embrace formal risk-pooling programs (e.g. large construction firms). However, the emergence of wider social insurance arrangements in history has required risk-pooling across class, gender, caste/jati, and sometimes sectors, and is a more complex process.



### **4.3 Co-evolution: Discretion and Quasi-rules**

The supposed trade-off between production efficiency and labour equity is often posed as a series of cost/investment tradeoffs. Within the world of the firm, there is a suspected correlation that workers who are not registered are often those who lack training and also those without social protection benefits.<sup>3</sup>

For bureaucrats and line workers acting on behalf of the state as Lipsky has argued, the agendas and resources claimed are far from straightforward. "Street-level" institutions determine a great deal. However, for the local bureaucrat, there is more than localised street-level ambiguity in administrative interpretation for social protection. There is a high level of discretion; the state is embedded in a web of person-to-person, and broader social norms which are open to variation and interpretation no matter how "hard" the policy rule and legal frameworks may be.

At the same time, globally harmonised technical standards have two important effects: they shape the microeconomic characteristics of the labour market by re-crafting the division of labour; and structure the market environment in which the State has several conflicting roles to play (Levi-Faur 2005, Srinivas, 2008). Within GPNs, harmonised technical standards require firms to embrace new changes in production and organisation. They fundamentally reorient the cost calculus and anticipated risk levels borne by ensuring cooperation between actors. For instance, cross-subsidisation and patching together insurance with training has allowed workers to be their own economic planners in several ways in important organizations.

If the State's various, often conflicting roles are to be resolved, the street-level planning around issues of social insurance, health insurance, and registration of workers, is likely to provide some determining context for how institutions emerge and costs redistributed. Cost structure is instituted by specific spatial divisions of labour and representation on the one hand, and on the other, a yet-evolving street-level determination of decentralised State-worker-firm interaction. At a procedural level then, before formal rules are instated, we need some interim framework for understanding how actors behave and how public bureaucracies interact with representative organisations of workers. This provides a window into a more robust analytic, non-monolithic State and a more realistic behavioural micro-climate.

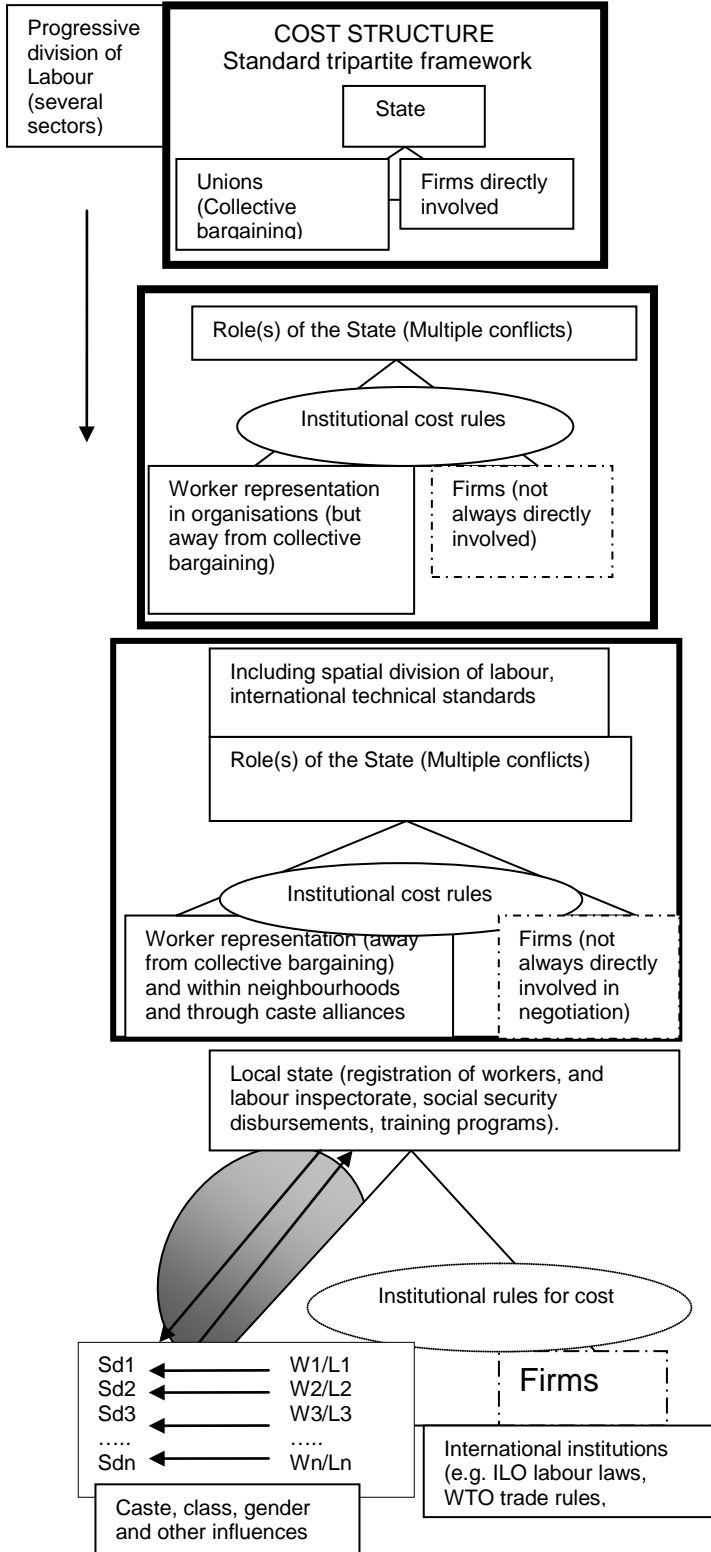
If we accept co-evolution of institutions and an expected difference between policy intent and self-organising emergence (Lewin and Volderba 1999, Sotarauta and Srinivas, 2006), actors do not simply react to each other's behaviour, but behave in a co-evolutionary framework away from standard rationality. This co-evolutionary, decentralised economic planning is far from a neoclassical rational cost-benefit calculation for social policy and moves considerably far from a firm-centric, transactions-cost oriented one. The context for self-organisation is central also to the Hayekian and Durkheimian writings but equally reflected in the concerns for the optimal (and minimal) polity (Sabel, 1995). The co-evolutionary approach suggests no automatic evolutionary move to a 'higher' economic equilibrium point, but one sensitive to technological changes and conflicting State roles in day-to-day practice, compatible with political studies such as Corbridge et al. (2005). When new 'perturbations' such as harmonised technical standards are introduced in this existing non-equilibrium framework, we should expect new cost rules, changed spatial bounds and collaborations for social programs and training.

The intersection of harmonisation-necessitated standards vs. needs-necessitated standards is one such approach (see Srinivas 2005).

The move away from firm-centric upgrading can also emphasises the inter-linked nature of several GPNs in a single region. While buyer-driven garment work can provide intermediaries for standards monitoring, most GPNs are complex. Moreover, rapid market expansion and employment opportunities in some GPNs exacerbates the tensions in others: call centre employment has lured skilled and educated workers from sectors such as garments, further underscoring the insecurity of remaining unskilled, first-generation rural workers (usually women) who have perilous ties to the city, and more tentative responses to daily encounters with the state. Faced with these less educated, sometimes less assertive women workers, some labour officials indicate that this places greater challenges at their doorstep in monitoring and enforcement (but the process of engagement can be cultivated, see Corbridge et al. 2005). *Beedi* and *agarbatti* sectors in Karnataka have global markets but production is concentrated. They have undergone far-reaching production shifts out of Karnataka, with only processing and packaging now in the state and with gradual labour standards improvements. Yet piece rate production work has become concentrated and continues largely unmonitored in neighbouring states such as Tamil Nadu, without much technical advancement or labour benefit. One state's partial improvement in standards has thus resulted from a fragmentation of production and discontinuity in monitoring. In the case of construction work, the vast dispersion of labour sites and the transience of work relationships raise acute challenges for the state. Registration therefore is a central institution in upgrading, potentially provide place-based identification for social entitlements from ration cards to housing, as well as work-place based context.

A framework focused primarily on productivity increases disadvantages women workers in multiple ways. Van Ginneken (1998), Subrahmanya (1998), Jhabvala (2000), Kantor and Nair (2003) and Lund and Srinivas (2005) in documenting diverse examples of how social protections actually come about, display a range of stakeholders in such efforts, undermining the rather more static tripartite and centralised approach to social protection programs. The schematic below displays progressive levels of complexity regarding state roles and spatial distribution of production. The specific form of the rules is determined by the process by which the representative organisations with a given spatial division of labour co-evolve and mutually emerge with street-level decisions of the local state (in the last figure). Sd1....Sdn indicate the spatial divisions of labour intended to represent the associational dilemmas posed by Smith, Durkheim, Marx and others regarding the tensions between forms of social solidarity and economic efficiency. W1....Wn are new representative worker organisations, not always traditional unions, and may not have a direct 1-1 relationship with spatial divisions Sd1....Sdn. L1.....Ln represent labour officials who administer to both inspection/enforcement on the one hand (their more traditional roles) but also to increasing responsibilities of registration of workers into social security benefits and disbursement (see Srinivas 2008b for cases). In other words, we may undertake to represent workers configured in several different spatial divisions of labour (Work-Place: factory plants, home-based workers, dispersed construction sites and daily migrants). Moreover, in several cities and sectors, labour organizing is occurring within neighbourhoods (Place), and not at traditional worksites which has gender implications for social benefits and training. It also depicts a shift in strategies of the labour department in monitoring workers' well-being, and the manner in which women workers interact with the department and new regulations are institutionalised over time.

**Figure 2 COMPLEXITY OF STATE AND SPATIAL DIVISIONS OF LABOUR**



The focus here is on the several roles of the state and the manner in which gender and spatial divisions of labour are accommodated in a wider risk ecology of firms, families, caste, jati, religion, or language, specific gatekeeping institutions (registration in this case) and new associational rules. The shaded left region indicates institutional gaps where no existing organizations and institutions exist to easily comply with new harmonized technical standards such that production costs are balanced with labour gains. More narrow GPN analysis and trade compliance cost studies focus on the right side, from buyers to consumers.

## **5 Conclusion: Planning institutional and spatial redesign**

There is an urgent need to complement studies on centralised labour institutions with those on decentralised decision-making and regulation where considerable economic and social foment and innovation is visible. While several unions and NGOs do indeed act as pressure groups, the State is not simply a reactive institution; it exercises a certain degree of autonomy. However, the lack of predictability of this autonomy complicates labour relations. Several Indian and S. Asian legacies in labour law have been handed down from colonial times, but are overlaid by existing social custom, caste, *jati*, wage, risk, and apprenticeship systems. Moreover, decentralisation and central economic planning have taken very different forms in these countries relative to industrialised nations. To compound this, very high rates of unemployment and underemployment make the seemingly strict boundaries between workers and non-workers more porous.

The regional risk ecology connects these disparate elements. Within this ecology, there is no neat separation between the haves and have-nots. Segmentation originates in and is augmented by the manner in which a firm produces, shares, and transfers risks to workers, their families, and other kinship groups. The regional risk ecology may accommodate the insights generated by internal labour markets as well as by insider-outsider approaches. Women with multiple social roles experience this segmentation and insider-outsider status in ways that are partially but not exclusively dependent on their biological or labour roles. Formal gate-keeping institutions such as unions and inspectorates may indeed lend leverage and power to insiders versus those involuntarily unemployed. However, when non-wage benefits such as insurance and training are brought into the picture, firms may see changed costs and advantages to continued negotiation with unions or the inspectorate. They may off-load these costs systematically to workers and other institutions, especially the extended family and particularly to women.

Registration is a window into this world, where workers assert several identity claims on the state. Only some of these behaviours may fit a political model of 'massification' of social security privileges, and hide several innovative ways in which productivity is enhanced and technical standards are met without sacrificing labour protections. Co-optation and rent-seeking approaches to economic theory hide more dynamic changes. The state's role is then to lower the overall risk to firms, but also to lend support through statutory or other means, to social protections that reduce the risks to other institutions within the ecology. To the extent that the state can do so, new contractual relationships that emerge between formal and other employment are less threatening to workers.

None of this dynamism is assisted by the incoherence in national and international infrastructure financing or in harmonised technical standards. WTO-emphasised technical standards of trade have constantly emphasised technical assistance, although the time scale and institutional content for making such assistance relevant to workers is highly unrealistic. Within Indian construction alone, large design and build firms and global tendering have substantially shifted the technological and employment prospects for workers. Yet many development agencies and financing organisations have supported large-scale urban and other infrastructure construction projects, but given little thought to employment and social protection content of municipal finance and tendering. The Mahatma Gandhi National Rural Employment Guarantee Schemes (NREGS) and the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) targeted at more than 60 Indian cities and towns present crucial additional opportunities to thread large-scale construction projects through with better social protections and training.

Eventually, if social protection and wider risk-mitigation and risk-pooling in bounded territories can enable firms to train workers and consider them part of a 'core,' social protection may well define the locus of the labour market, rather than work status or work-places defining access to social protection. The 21<sup>st</sup> century role for industrial planning, firms, and the state requires a development lens focused on local institutions and a better grasp of social protections beyond industrial upgrading alone.

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