Fall in Organised Manufacturing Employment

A Brief Note

About 15 per cent of workforce in the organised manufacturing sector lost their jobs between 1995-96 and 2000-01. This note briefly describes the broad dimensions of the job losses, explores possible reasons for it, and suggests its implications for the labour market reforms.

R NAGARAJ

In 1999-2000, organised (registered or formal) manufacturing sector employed about eight million people – about three-fourth of them 'workers', the rest were supervisors and managers (supervisors, for short).[1] They represented close to 2 per cent of the economy's workforce producing about 11 per cent of domestic output, using 25 per cent of renewable capital stock. Many laws protect and promote interests of workers employed in this sector – like their health and safety, minimum wages and their timely payment, maternity leave for women, bonus, provident fund, gratuity and so on. The larger the factory, the greater is the workers' entitlements. Though any seven workers can form a trade union, such association of workers usually tends to be more durable only in larger factories. About four million workers employed in factories with 100 or more workers have job security under Chapter V-B of the Industrial Disputes (ID) Act, 1947. It means that an employer in these factories has to seek the state's permission to retrench even a single worker (after the amendments in 1976 and 1982). Reportedly such permissions are rarely granted, as the state is, in principle, committed to workers' welfare. However, the protection is not available to supervisors as they are considered part of management.[2]

These labour laws in general, the job security regulation in particular, have been a bone of contention since the economic reforms were initiated in 1991. Many economists and policy-makers believe that the nature and extent of state intervention of industrial labour market is excessive, increasing labour costs and reducing flexibility to respond to vagaries of business in an increasingly open and competitive economy. The lack of managerial freedom to (use the popular term) 'hire and fire' is widely believed to adversely affect output and employment growth [for a recent example, Burgess and Beseley 2004]. Lack of adaptable labour market is said to have become a binding constrained on expansion of labour-intensive manufacturings and their export, holding back India's ability to effectively compete with east Asia in general, and China in particular. Such an analysis has been widely disputed.[3] However, the Second Labour Commission that was set up a few years ago to examine this contentious issue has broadly endorsed the reformist's view.

In this context, we look at the employment scene in the recent years. To provide a perspective, during 1981-2002, real gross value added (output, for short) in registered manufacturing has grown at 7.4 per cent per year, without any acceleration after the reforms in 1991. However, output and investment boomed in the first half of the 1990s, followed by deceleration that has since persisted [Nagaraj 2003].

I
Facts

Figure 1 shows, there was practically no increase in employment during the 1980s – a period of jobless growth. But the 1990s witnessed a boom for four years during 1992-96, followed by a retrenchment. Between 1995-96 and 2001-02, 1.3 million employees (13 per cent of workforce) lost their jobs. Thus, employment in 2001-02 is roughly same as it was eight years earlier.[4]

It is mostly workers who have lost over 1.1 million jobs (15 per cent) (Figure 2). But employment of supervisors increased more or less steadily, though they too experienced job losses. Between 1980-81 and 2000-01, employment of workers increased by 4.3 per cent (0.24 million), while that of supervisors rose up by 39 per cent (0.55 million). On a trend basis, however, the annual growth rates are 0.9 per cent and 2.2 per cent for workers and supervisors respectively.

The job losses are widespread across industries and states. Of 15 major industry groups, 11 representing about 80 per cent of the workforce, witnessed a fall in employment during 1996-01 (Table 2). Similarly, employment declined in 13 out of 17 major states, constituting close to 90 per cent of the workforce. The exceptions are industry groups, beverage and tobacco, textile products, chemicals and other manufacturing (NIC, 22, 26, 29 and 38); and the states are Himachal Pradesh, and Kerala.

Table 1: Employment of Workers in Organised Manufacturing by 2-digit Industry Group, 1991-92 to 2000-01

NIC Code	Industry Group	Employment Share in 1991-92 (Per Cent)	Index Number of Employment with 1991-92 as 100	
			1995-96	2000-01
20-21	Food products	15.7	117.0	111.1
22	Beverages, tobacco	8.7	103.3	107.5
23-25	Textiles	19.9	116.1	86.8
26	Textile products	2.7	189.4	287.9
27	Wood, furniture	0.9	120.3	109.3
28	Paper, printing	4.0	119.5	98.0
29	Leather	1.6	121.7	128.5
30	Chemicals	7.3	127.9	136.1
31	Rubber, petroleum	3.4	129.3	124.8
32	Non-metallic products	6.7	104.0	94.2
33	Basic metals	8.1	123.8	94.0
34	Metal products	3.1	123.1	118.4
35-36	Machinery	10.1	116.3	97.1
37	Transport equipment	6.6	125.4	88.7
38	Other manufacturing	1.3	149.4	157.0

Source: Annual Survey of Industries, various issues.

Figure 1: Number of Employees

Figure 2: Employment in Organised Manufacturing

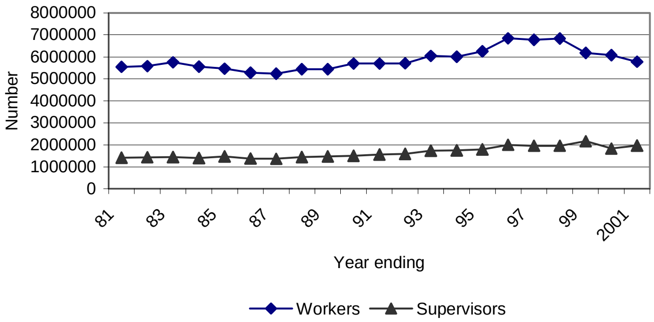
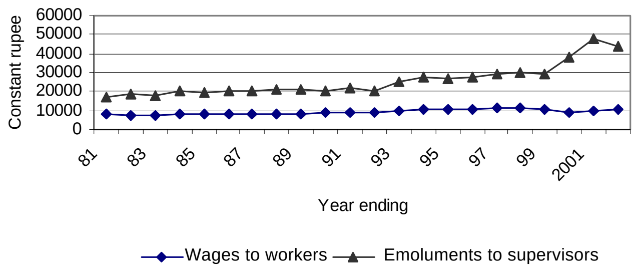


Figure 3: Real Wages and Emoluments



There was no change in Haryana and Punjab. Much of the contraction is likely in larger factories and in public sector enterprises, but we cannot verify it for lack of disaggregated data for the recent years.[5]

What about the wages, as a measure of welfare? Real wages per worker – nominal wages deflated by consumer price index – has roughly stagnated in the 1990s, while real emoluments for supervisors went up by 77 per cent between 1992 and 2001 (Figure 3).[6] Education, skill and experience probably explain the divergence in earnings of workers and supervisors, reflecting the industrial sector's growing technological complexity. Abolition of ceiling on managerial pay in 1991 could also have added to the widening gap.

II
An Explanation

What explains the unprecedented job losses? Perhaps setting up of the National Renewal Fund – to finance mainly retrenchment of workers in public sector enterprises – was a signal of the government's tacit support for similar initiatives in the private sector. Although the labour laws remained the same, their enforcement was diluted or government ignored their evasion by employers. In effect, it was reform by stealth.[7] Some of it was perhaps unavoidable with the growing domestic and external competition. Introduction of information technology could also have contributed to workers' displacement.

In the initial years, these adjustments at the factory floor were not evident in the aggregate, as the output and investment boom during 1992-96 created sizable new job opportunities (Figures 4 and 5). As the boom petered out, net job creation turned negative since retrenchments and lay-offs continued apace. In principle, these job losses should get reflected in the Labour Bureau's data in 'lay-offs and retrenchments', but they do not, due to increasing underreporting.

Admittedly, some of the jobs shed are likely to have reappeared in the unorganised (informal) sector with growing subcontracting of production and shedding of auxiliary services like transport, security, cleaning, and provision of food at workplace. Hence, in the aggregate, the extent of job losses may not be severe as it appears in the first instance. Some of it may also represent natural attrition of workers in older firms and factories, where employers may not replace the retiring workers but reorganise the work among the remaining ones with suitable incentives.[8] Undoubtedly, these changes in labour use represent a fall in quality of employment with stagnant real wages and greater job insecurity.

What does the job losses imply for the economy? Greater productivity per worker, the gains of which have accrued mainly to employers, since the real wages have remained stagnant. However, with increased competition in product market, some of these gains are likely to have been passed on to consumers in terms of lower prices, or improved quality. Due to a thorough restructuring, (shedding of labour is one of its element) the organised manufacturing has largely withstood the policy shocks of the early 1990s, which apparently has helped some firms and factories to emerge internationally competitive.[9] Whether the greater efficiency implies faster output growth is a moot point. Moreover, if we reckon that workers are also consumers then the stagnation of real wages could have contributed to the shrinking of consumption demand, and to the deceleration of output growth.

Table 2: Employment of Workers in Organised Manufacturing by Major States, 1991-92 to 2000-01

States	Employment Share in 1991-92 (Per Cent)	Index Number of Employment with 1991-92 as 100	
		1995-96	2000-01
Andhra Pradesh	12.4	119.2	107.4
Assam	1.8	112.2	93.2
Bihar	4.5	91.3	73.1
Gujarat	9.1	124.7	109.5
Haryana	3.1	129.2	129.0
Himachal Pradesh	0.3	146.8	174.7
Jammu and Kashmir	0.2	167.2	159.2
Karnataka	5.2	121.5	120.5
Kerala	3.9	117.8	122.2
Madhya Pradesh	4.3	137.3	100.6
Maharashtra	14.4	125.2	99.2
Orissa	1.6	128.7	107.5
Punjab	4.1	121.6	121.0
Rajasthan	2.7	122.6	112.5
Tamil Nadu	13.4	128.3	123.0
Uttar Pradesh	9.1	105.6	83.3
West Bengal	9.7	111.8	83.4

Note: Newly formed states of Chhattisgarh, Jharkhand and Uttaranchal have been merged with the states they were part of before their formation.
Source: Annual Survey of Industries, various issues.

Figure 4: Manufacturing Output Growth, 1991-2002

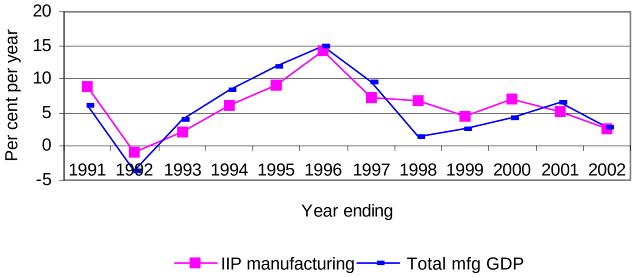


Figure 5: Growth in Fixed Investment

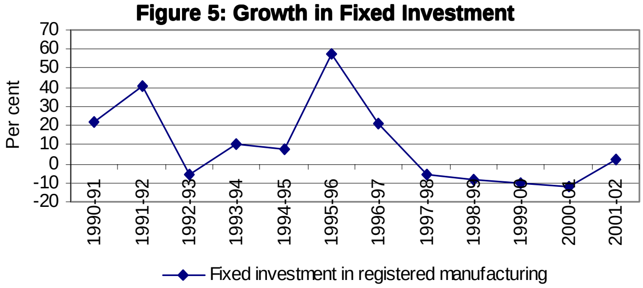
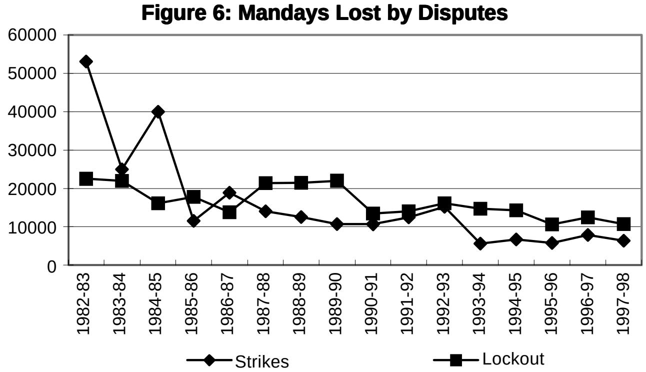


Figure 6: Mandays Lost by Disputes



Similarly, whether investment in information technology secures sustained improvement in productivity is also debatable.[10]

III
Implications

As noted earlier, the labour market is widely believed to suffer from excessive intervention leading to substituting of capital for labour, and hurting employment growth. Job security clause is claimed to have further accentuated the rigidity. Labour market reforms have therefore mainly meant a reduction of the extent of protection and repealing of the job security clause – or simply, to permit 'hire and fire' with minimal interference from government and courts.

Is this view consistent with the experience of the 1990s? Probably not. There has been reform by stealth that has led to 15 per cent fall in employment in six years, without inviting large-scale resistance from the organised labour. It really exposes the ineffectiveness of the job security laws. The fact that real wages have remained stagnant for much of the 1990s despite over 3 per cent growth in per capita income suggests how weak is the organised labour's bargaining power vis-à-vis employers. It strengthens the argument that labour laws in India, as in many developing countries, tend to be aspirational with limited enforcement.[11]

Table 3 provides a summary of the organised manufacturing sector's performance since 1980-81. Evidently, employment growth is marginal and wage growth is modest (in fact, the wages have relatively declined). However, output has grown at over 7 per cent per year, which is reflected in significant rise in labour productivity, which is largely due to the increase in capital per worker. This is unlikely to represent a substitution of capital for labour, since wage-rental ratio has declined quite steeply, suggesting massive modernisation and diversification of the production structure.

Could a rigid labour market have permitted rapid output and productivity growth, with stagnant employment and modest real wage increase? Probably not, for the following reasons. Intuitively, the situation resembles Lewisian 'modern' sector with unlimited supply of labour at constant wages (in terms of food), and the output being inside the marginal productivity curve. Under the threat of increased competition after 1991, employers were able to augment output by work intensification that pushes output towards the marginal productivity curve; at the same time extending the frontier outwards by augmenting capacity. Such a process was perhaps possible only when the labour market is flexible enough to accept the terms and conditions laid down by employers. That the labour, in general, has been docile is evident from the fact that number of days of work lost due to industrial strife has fallen in absolute terms during this period (Figure 6).[12]

If above arguments and evidence has any merit, it suggests that much publicised labour market rigidity does not seem to hold any more, if it ever did. There now seems little basis to argue for greater freedom for employers to hire and fire. If anything, there is perhaps a need to ensure that workers losing jobs (i) are getting their legitimate dues from their employers and public institutions, (ii) are provided with an opportunity to retrain themselves in more marketable skills, and (iii) have access to financial assistance for self-employment.[13]

These suggestions are in no way an endorsement of the status quo. On the contrary, there is a need to rationalise the labour laws to encourage cooperative behviour among workers and employers. Probably we have to move towards income security (in place of job security) safeguarding workers' earnings, in return for more flexible use of their labour time by their willingness to perform a variety of functions [Bardhan 2000].[14]

It is widely acknowledged that plethora of labour laws do not necessarily improve workers' bargaining position, in the absence of a credible enforcement mechanism. These laws with numerous

Table 3: Performance of Organised Manufacturing Sector, Some Selected Indicators, 1980-81 to 2000-01

	1980-81	1990-91	2000-01	Percentage Change	
				1981-91	1991-01
No of workers (million)	5.5	5.7	5.7	3.6	-
Real wages/worker (index)	100.0	118.2	134.0	18.2	13.1
Product wage/workers (index)	100.0	165.4	210.0	65.4	27.2
Wage-rental ratio (index)	100.0	80.6	60.6	(-) 19.4	(-) 24.8
Labour productivity (index)	100.0	219.1	395.7	119.1	80.6
Capital stock/worker (index)	100.0	183.3	423.8	83.3	131.2
Memo: per capita net national product	145.2	198.5	278.1	36.7	40.1

Notes: All relevant variables are at constant process. Capital stock refers to net fixed capital stock at 1993-94 prices for total manufacturing. Product wage per worker divided the deflator for machinery and equipment (proxy for cost of capital) is the wage-rental ratio. In principle, it is perhaps more appropriate measure of relative cost of labour than the widely product wage per worker.

Sources: *ASI*, various issues; capital stock is from *National Accounts Statistics*, per capita net national product is from the *Economic Survey, 2001-02*.

built-in loopholes seem to offer rent seeking opportunities for some, and lengthy litigations for the bulk of the workers, who bear the brunt of the disputes in the absence of minimal social security.[15]

IV
Conclusions

Between 1995-96 and 2000-01, about 1.1 million workers, or 15 per cent of workers in the organised manufacturing sector lost their jobs. These losses have been widespread across major states and industry groups. Real wages have practically stagnated, when per capita income grew close to 3 per cent per year during the 1990s. However, employment of supervisors rose steadily, and their earnings accelerated in this period.

What explains the unprecedented employment contraction? Setting up of the National Renewal Fund as a component of structural adjustment programme in 1991 to finance VRS in public sector enterprises seems to have provided the initial impetus. Taking cues from it, private sector retrenched and laid off workers, as enforcement of labour laws was relaxed, which can be considered reform by stealth. Shedding of excess labour was perhaps one of the initiatives of industrial restructuring in the face of increased domestic and external competition under changed policy regime.

Up to the mid-1990s, job losses did not show up in the aggregate, as there was considerable job creation due to the boom in industrial output and investment. As the boom went bust, and the lay-offs sustained, there was a steep fall in employment in the second half of the 1990s. Relative cost of labour did not seem to matter in employment decisions, as the wage-rental ratio declined secularly.

The extent and spread of the job losses witnessed suggest that the much discussed inflexibility in industrial labour market seems over done – at least in the aggregate. Productivity gains have largely accrued to employers, as real wages were practically stagnant. The real need of the hour, therefore, is perhaps not greater freedom to employers to hire and fire at will, but to ensure that those losing jobs during industrial restructuring get their legitimate dues from their employers and public institutions. They require retraining to acquire marketable skills, and financial assistance to become self-employed.

There is perhaps also a need to move towards income security with workers accepting multi tasking and flexible use of their labour. Reforms should perhaps be seen as an effort to rationalise labour laws to make them simpler, yet strictly enforceable. In other words, it is imperative to work towards a new compact where workers accept income security and flexible labour use, while employers offer better work and productivity sharing agreements. Such efforts alone could put a human face to the otherwise harsh reality of today's labour market. EPW

Address for correspondence:
nagaraj@igidr.ac.in

Notes

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1 *Annual Survey of Industries* (*ASI*), the main data source for this study, defines worker as: "Workers are defined to include all persons employed directly or through any agency whether for wages or not, and engaged in any manufacturing process or in cleaning any part of the machinery or premises used for manufacturing process or in any other kind of work incidental to or connected with the manufacturing process or subject of the manufacturing process. Labour engaged in the repair and maintenance or production of fixed assets for factory's own use or labour employed for generating electricity or producing coal, gas, etc, are included. However, persons holding positions of supervision or management or employed in administrative office, store keeping section and welfare section, sales department as also those engaged in the purchase of raw materials, etc, and in production of the fixed assets for the factory and watch and ward staff are excluded."

2 Overlooking this distinction, as many recent studies have done, could yield misleading results, since there is a growing divergence between employment and earnings of workers and supervisors.

3 For a brief literature review, see Nagaraj (2004).

4 Data for 2001-02 is from the Central Statistical Organisation's (CSO) web site.

5 With the revision of tabulation scheme since 1998-99, CSO has ceased to provide data by size of factories, by type of ownership and organisation, severely restricting the quality of analysis.

6 *ASI* underestimates emoluments to supervisors since it cannot fully capture various perks granted to senior managers, but recorded as part of operating expenses.

7 Jenkins (1999) provides many instances of how powerful regional political leaders have persuaded state governments to make subtle changes in labour laws by administrative orders, yielding substantial leeway for employers.

8 Such a shift, in principle, should get reflected in higher employment growth in unregistered sector, but it is not evident yet [Chadda and Sahu 2002].

9 For instance, Tata Steel halved its workforce to 40,000 and doubled its output to 4 million tonnes in the 1990s, to emerge as the world's second most efficient steel mill, according to World Steel Dynamics (*Far Eastern Economic Review*, February 12, 2004).

10 Even in the US economy that has witnessed most rapid increase in IT related investments, their contribution to productivity growth is hard to measure. See, for instance, symposia on 'Computers and Productivity' in *Journal of Economic Perspectives*, Vol 14, No 4, Fall 2000.

11 Most of the studies by mainstream economists have sought to highlight the strengths of the organised labour and the growing rigidity of the labour market using selected aggregate statistics. They have ignored descriptive, disaggregated, fieldwork based and sociological accounts of the labour market that document problems like the ineffectiveness of the labour laws due to poor enforcement, and inability of workers to get justice in courts and labour departments. For a recent review of this genre of literature, see Chapter 2 of Harris-White (2003).

12 This graph is taken from Uchikawa (2003).

13 Apparently NRF was intended for retraining and relocating workers adversely affected by structural adjustment programme. But it was effectively turned into a source for VRS in public sector enterprises.

14 My reading of industrial disputes suggests that workers and their unions usually accept flexible use of labour and work intensification as long as there is a reasonable assurance of continuity of employment and reasonable sharing of productivity of gains.

15 With detailed documentation, Mathur (1991) shows how the seemingly rigid labour laws contain escape clauses that vitiate the very purpose of such legislations.

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