

## Changes in the Status of Employment in Indian Manufacturing Industry: A Synoptic View

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**Abstract.** The process of economic reforms as initiated during July, 1991 has greatly removed the barriers to trade and investment; giving rise to increased flow of commodities, capital and technology both domestically and globally. The various measures to minimize costs and increase efficiency are considered to be an important corporate strategy to maintain competitive edge over the rivals. In order to achieve the twin objectives viz. efficiency enhancement and cost reduction the employers have been constantly demanding changes in the labour laws. Such changes are expected to bring fair amount of flexibility in the tenure and use of the labour force. On the other hand, the antagonists of the labour market reforms argue that a substantial degree of labour market flexibility already exists owing to weak enforcement of various provisions of labour laws and increased use of sub-contracting and outsourcing by the firms. Using Annual Survey of Industries data from 1984-85 to 1990-91 (pre-reform period) and 1991-92 to 2005-06 (post-reform period) an attempt has been made in this paper to analyse and discuss the dimension of different categories of workers including the contract workers during the two time periods. It has been observed in this paper that from pre- to post-reform period the relative employment of contract workers has increased with greater consistency indicating the existence of flexible labour market in India.

**Key words:** Economic reforms, Corporate strategy, Contract workers, Direct workers, Total workers, Contract intensity

### 1 Introduction

The process of economic reforms which was started during the second half of the decade of 1980 in a hesitant manner gained momentum on a firm and bold footing since July 1991 in India. Different instruments were adopted to reform the Indian economy with three broad objectives in mind viz. *liberalization of trade and industry, privatization of public sector undertaking and globalization of the Indian economy*. These measures/instruments have greatly removed the barriers to trade and investment; giving rise to increased flow of commodities, capital and technology both domestically and globally. Further, liberalization of trade and investment on the one hand and globalization on the other has exposed the Indian enterprises to

the environment of increased competition both domestically and globally. In the era of new policy regime firms are adopting various measures to minimize costs and increase efficiency. This is considered to be an important corporate strategy by the firms to maintain competitive edge over their rivals. This is considered necessary not only for their growth but survival also. As a part of cost reduction strategy large and modern firms, rather than being vertically integrated, prefer to adopt the strategy of outsourcing and sub-contracting. Moreover, the firms are resorting to various cost cutting devices including the expenditure incurred on permanent and regular workers. In order to achieve the twin objectives viz. efficiency enhancement and cost reduction the employers have been constantly demanding changes in the labour laws. Such changes are expected to bring fair amount of flexibility in the tenure and use of the labour force to the advantage of both employees and employers. In order to achieve the twin objectives viz. efficiency enhancement and cost reduction the employers have been constantly demanding changes in the labour laws. Such changes are expected to bring fair amount of flexibility in the tenure and use of the labour force.

## **2. The Debate on Labour Market Flexibility**

The supporters of the changes in labour laws who believe in neo-classical labour theories, argue that labour market rigidities not only reduce output and employment potential of industries but also affect the process of adjustment during shock. These rigidities often render firms sick (Fallon and Lucas, 1991; Seth and Aggarwal, 2004). They regard labour market flexibility as a panacea to cure unemployment, both in developed and developing world (Sen and Dasgupta, 2009).

On the other hand, it is argued by the antagonists of the labour market reforms that forced labour market flexibility would create labour market insecurities and exploitation of working class at the hands of employers and their agents by increasing degree of monopoly, shifting income distribution from wages to profit and a general decline in the profile of aggregate demand and employment (Patnaik, 2006; Sen and Dasgupta, 2006). This is particularly true in such institutional settings where enforcement of various labour legislations is quite weak and mismanaged. It is further pointed out that a significant degree of labour market flexibility has been introduced by the employers stealthily and through the backdoor (Mathur, 1992; Bardhan, 2002; Shyam Sundar, 2003; Nagaraj, 2004; Dutt, 2006; Guha, 2009). The employers have been

grossly flouting various provisions of labour laws related to employment and wages in many guises and excuses.

Further, employers are alleged to be using non-standard work practices by resorting to subcontracting and outsourcing their production work and employing increased number of casual and contract workers in order to escape various provisions of the labour laws (Ramaswamy, 1999; Bagchi and Das, 2005; Sen and Dasgupta, 2006). The use of non-standard work practices allows employers to retain a core workforce of skilled, permanent employees and to retain excess through casual or contract labour, to a peripheral workforce of general labour. These practices provide to the employers labour use flexibility because such workers can be removed any time without rendering any lay-off costs (Seth and Aggarwal, 2004; Sahu, 2003; Papola, 2005). The weak enforcement of various provisions of labour laws, specially, the contract labour laws have resulted in an increasing presence of temporary workers in regular works. Thus, a substantial degree of labour market flexibility is said to have already been achieved by the employers without changing any of the above mentioned Acts (Datta, 2003).

### **3. Objectives of the Paper**

- i.** To through light on dimension of employment of the contract workers as compared to total workers and the directly employed workers in Indian organized manufacturing sector with the help of some descriptive statistics.
- ii.** To observe the changes in the relative employment of contract workers (contract intensity) in Indian organized manufacturing industry before and after the period of economic reforms.
- iii.** Policy implications.

### **4. Data Sources and Methodology**

To study the dimension of employment of different categories, the Annual Survey of Industry data has been used for the period 1984-85 to 2005-06. In order to analyse data regarding the employment of workers employed through contractors and directly employed workers; the average number of total workers, directly employed workers and workers employed through contractors was computed year wise for the period 1984-85 to 1990-91 (Pre-reform) and 1991-92 to 2005-06 (Post-reform). The compound annual growth rate (CAGR) and coefficient of

variation (CV) has also been computed to broadly observe inter-temporal and inter-industry variation in the status of employment in the Indian manufacturing industry.

Further, the changes in the ratio of contract workers to total workers may be used as an indicator of *contract intensity or the labour market flexibility* in an industry or the sector as a whole. The contract intensity has been computed as an average value of the ratios of contract workers to total workers in all industries (CW/TW).

## 5. Data Analysis

### 5.1. Inter-temporal analysis (Pre-reform period)

Tables – 1 and 2 give a broad year wise picture of the composition of the workforce in terms of the total workers, contractual workers and the directly employed workers in the Indian organized manufacturing sector from 1984-85 to 1990-91 and 1991-92 to 2005-06. The tables show the *average number*<sup>1</sup> of different categories of workers in all manufacturing industries taken together. The tables also show the *coefficient of variation (CV)* in the distribution of each category of workers among different industries for each year.<sup>2</sup> It also shows the *Compound Annual Growth Rate (CAGR)* of each category of workers for the above periods.

**Table – 1:** Descriptive Statistics of Composition of Workers during Pre-reform Period

Years	Total Workers			Contractual Workers			Direct Workers		
	Average	CV (%)	CAGR (%)	Average	CV (%)	CAGR (%)	Average	CV (%)	CAGR (%)
<b>1984-85</b>	435336	94.72		49674	158.38		385663	94.64	
<b>1985-86</b>	417265	91.10	-4.15	51846	145.37	4.37	365419	89.97	-5.25
<b>1986-87</b>	414556	92.70	-2.42	57214	159.57	7.32	357342	90.84	-3.74
<b>1987-88</b>	433405	92.61	-0.15	57241	151.52	4.84	376164	90.42	-0.83
<b>1988-89</b>	432947	90.04	-0.14	58282	142.08	4.08	374664	87.90	-0.72
<b>1989-90</b>	452769	93.92	0.79	64956	152.48	5.51	387813	90.17	0.11
<b>1990-91</b>	453973	91.98	0.7	61472	154.85	3.62	392501	88.69	0.29

Source: Author's computation from Annual Survey of Industries (CSO) data.

<sup>1</sup> In tables – 1 and 2 the average number of total workers for each year has been computed by summing together the number of workers in all industries in that year and then dividing this aggregate by the total number of industrial groups (12 in this case). For getting average number of remaining two categories of workers, similar exercise has been done. This exercise facilitates year wise comparison of average of a particular category of worker in aggregate manufacturing industries.

<sup>2</sup> The CV regarding the employment of total workers, contractual workers and directly employed workers refers to the degree of variation in the employment of a particular category of workers among different industry groups during a particular year.

It may be observed from table – 1 that the average number of total and directly employed workers has more or less declined except during the years 1989-90 and 1990-91, when the respective numbers increased to 453973 and 392501 during the year 1990-91. On the contrary the number of contractual workers has continuously increased from 49674 (1984-85) to 61472 (1990-91).

The high value of CV reflects a wide variation in the distribution of a particular category of workers among different industries during a given year and it does not change much over time. The CV in the employment of contractual workers among different industries during each year is much higher than the CV of the rest two categories of workers. In other words, there is wide variation in the employment of contract workers across different industries but over the years the CV figures have varied only within a limited range. The CAGR of the contractual workers has remained positive throughout the years of pre-reform period but it has been fluctuating a lot and it does not show any definite pattern during above period of study.

**Table – 2:** Descriptive Statistics of Composition of Workers during Post-reform Period

Years	Total Workers			Contractual Workers			Direct Workers		
	Average	CV (%)	CAGR (%)	Average	CV (%)	CAGR (%)	Average	CV (%)	CAGR (%)
<b>1991-92</b>	455770	90.99		60427	142.35		395343	88.36	
<b>1992-93</b>	480670	91.82	5.46	66908	150.30	10.73	413762	87.66	4.66
<b>1993-94</b>	478388	91.36	2.45	72574	138.66	9.59	405815	88.29	1.32
<b>1994-95</b>	499716	91.72	3.12	75654	143.19	7.78	424062	88.05	2.37
<b>1995-96</b>	545298	88.96	4.59	75385	129.12	5.69	469913	89.38	4.41
<b>1996-97</b>	538892	89.23	3.41	88230	125.20	7.86	450662	87.74	2.65
<b>1997-98</b>	538859	92.33	2.83	87933	140.20	6.45	450926	90.96	2.22
<b>1998-99</b>	515653	91.73	1.78	78372	92.00	3.78	437281	94.51	1.45
<b>1999-00</b>	506101	93.11	1.32	98944	137.98	6.36	407158	91.17	0.37
<b>2000-01</b>	496510	95.69	0.96	100751	133.48	5.84	395759	94.97	0.01
<b>2001-02</b>	481849	94.45	0.56	104261	128.85	5.61	377588	93.73	-0.46
<b>2002-03</b>	498584	91.13	0.82	116855	120.80	6.18	381729	91.17	-0.32
<b>2003-04</b>	492569	93.98	0.65	120750	115.21	5.94	371819	96.00	-0.51
<b>2004-05</b>	532835	91.22	1.21	140786	105.30	6.72	392048	95.43	-0.06
<b>2005-06</b>	574349	89.48	1.67	164213	97.76	7.4	410135	96.50	0.26

Source: Same as table – 1.

## 5.2. Inter-temporal analysis (Post-reform period)

A perusal of the above table reveals that the average number of total workers, contract workers and direct workers were 455770, 60427 and 395343 respectively during the year 1991-92 which increased to 574349, 164213 and 410135 respectively during the year 2005-06. The only exception is the period from 2001-02 to 2004-05 during which the average number of directly employed workers has declined as compared to the previous years.

The CV of employment for different categories of workers during post-reform period has shown similar pattern as that during the pre-reform period. The only remarkable point regarding the CV of contractual workers is that although this CV is still higher than the CV of the other two categories of the workers for each year, yet it has shown lower values in the post-reform than during the pre-reform period. It shows that during post-reform period the employment of contract workers has not only increased, but also there is increased consistency in the use of such workers across different industries. During post-reform period the CAGR of the contract workers is not only positive but it is significantly higher at each and every point of time as compared to the CAGR of other two categories of the workers. The CAGR of contract workers was 10.73, 5.61 and 7.4 per cent during the year 1992-93, 2001-02 and 2005-06 respectively.

## 5.3. Inter-temporal ratio analysis (Pre-reform period)

The changes in the ratio of contract workers to total workers may be used as an indicator of *contract intensity or the labour market flexibility* in an industry or the sector as a whole. Table – 3 has been used to analyse the *contract intensity*<sup>3</sup> for aggregate manufacturing industries using the ratio of contract workers to the total workers (CW/TW) for the pre and post-reform periods. The CV of the above ratios has also been computed to observe the inter-industry variation in this index for different years.

Table – 3 shows the relative employment of contractual workers to total workers during pre-reform period. It may be observed from the table that CW/TW ratio has been fluctuating within a range of 0.09 (1984-85) and 0.12 (1990-91). Further, it may be observed from the above table that during each year the proportion of employment of contract workers to total workers among different industries has varied a lot during the period from 1984-85 to 1990-91. But this

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<sup>3</sup> In tables – 3 and 4, contract intensity for each year has been computed as an average value of the ratios of contract workers to total workers in all industries (CW/TW).

variation in the relative employment of contractual workers vis-à-vis the total workers has a declining tendency over the period from 1984-85 to 1990-91. The maximum value of CV of CW/TW is 86.57 per cent (1986-87) and the minimum value is 64.63 per cent during the year 1988-89. Considering the pattern of CAGR of CW/TW it may be stated that contract worker intensity in Indian manufacturing has depicted a declining trend during the pre-reform period. The CAGR of CW/TW varies in the range from 8.07 (1986-87) per cent to 2.72 (1990-91).

**Table – 3:** Descriptive Statistics of Contract Intensity of Workers (Pre-reform Period)

Years	Ratio of Contractual to Total Workers (CW/TW)		
	Average	CV (%)	CAGR (%)
1984-85	0.09	85.56	
1985-86	0.10	81.10	8.00
1986-87	0.11	86.57	8.07
1987-88	0.11	71.23	6.29
1988-89	0.12	64.63	6.55
1989-90	0.12	65.52	4.43
1990-91	0.11	73.85	2.72

Source: Same as tables – 1 & 2.

#### 5.4. Inter-temporal ratio analysis (Post-reform period)

A perusal at table – 4 reveals that the ratio of contractual to total workers (CW/TW) has increased from 0.11 (1991-92) to 0.15 (1997-98). This ratio further increased to 0.28 during the year 2005-06. The CV of CW/TW has declined from 62.73 (1991-92) to 54.68 (1997-98) and further to 36.30 during the year 2005-06. The CAGR of CW/TW for different years has also depicted a rising trend. During post-reform period the CAGR of CW/TW has increased from 0.2 per cent in 1992-93 to 6.63 per cent during the year 2005-06.

Table – 4: Descriptive Statistics of Contract Intensity of Workers (Post-reform Period)

Years	Ratio Contractual to Total Workers (CW/TW)		
	Average	CV (%)	CAGR (%)
1991-92	0.11	62.73	
1992-93	0.11	63.16	0.2
1993-94	0.13	54.21	6.52
1994-95	0.13	54.52	3.43
1995-96	0.13	65.64	3.42
1996-97	0.15	47.92	5.51
1997-98	0.15	54.68	4.5
1998-99	0.16	46.32	4.69
1999-00	0.17	50.33	5.48
2000-01	0.18	46.92	5.37
2001-02	0.19	46.72	5.45
2002-03	0.22	40.67	6.08
2003-04	0.23	37.80	6.08
2004-05	0.25	37.80	6.23
2005-06	0.28	36.30	6.63

Source: Same as tables – 1, 2 & 3.

## 6. Conclusion and Policy Implications

The relative employment of contract workers with reference to total workers (CW/TW) has increased significantly from pre to post-reform period in manufacturing industries of India. There is increased use of contract workers in manufacturing industry not only from pre to post-reform period but the rate of contract worker intensity has increased over the years during the post-reform period itself. The declining CV of CW/TW shows that there is increased consistency in the use of contract workers across industries not only from pre to post-reform era but this consistency



has increased during the post-reform period itself. The CAGR of CW/TW has also increased during the post-reform period.

The arguments of employers and the firms that Indian labour market is quite rigid and that it is the main impediment in the way of increasing output and creating employment in the manufacturing sector is not wholly supported by the available evidence.

Therefore, the state while formulating and implementing any policy related to labour market reform must take into consideration the interests of both the employers and the employees. The employers should not be allowed to 'hire and fire' workers arbitrarily and without paying adequate compensation. It should also be kept into consideration that changing the status of employment from permanent/regular to contractual has larger ramifications for the industrial relations and the collective bargaining producing deeper bearing on the workers' welfare.

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