

# The Growth-Employment Relationship Since 2000

Shipra Nigam

Discussion Paper # 192



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# The Growth-Employment Relationship Since 2000

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Shipra Nigam\*

**Abstract:** This discussion paper is a brief assessment of the employment challenge that became manifest in the Indian economy during the past decade. It analyses various available economic indicators and presents estimates that highlight the structural transformations that have taken place. The key issue that the paper examines is whether high rates of growth registered by the Indian economy in the past decade were accompanied by substantive growth in employment. It brings out how the Indian economy over the last decade seems to have experienced all the classic features earmarked in literature while discussing the crisis of employment in case of large developing countries. Overall employment elasticities have been falling, wage inequalities have been rising, there is a rise in informalisation and casualisation of labour force and there exists a substantial number of working poor. It also demonstrates that employment growth rates and elasticities in the growing sectors of the economy (with the exception of construction) have been experiencing a fall in the long-run. This has retarded the process of absorbing the unemployed and underemployed labour force into more productive and dynamic employment opportunities.

**Keywords:** Employment growth, informal sector, jobless growth.

## 1. Introduction

At a time of periodic economic crises with a global outreach, such as the US financial crisis of 2008 or the ongoing Eurozone crisis, a related crisis of employment in the labour markets of both advanced and developing economies has also become manifest. The spillover effects of macroeconomic crisis and the imperatives of demographics, structural shifts and technological change have renewed focus on employment as a critical concern of growth and development policy within the developing world.

This paper is a brief assessment of the nature of and the extent to which productive employment generation and creation has occurred

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in the past decade in the Indian economy given this background. It analyses various available economic indicators and presents estimates that highlight the structural transformations that have taken place. The key issue that the paper examines is whether high rates of growth registered by the Indian economy in the past decade were accompanied by substantive growth in employment.

The paper has several sections. It begins with a brief discussion locating the current employment scenario in the country within a larger global discourse on employment and protecting livelihoods issues within the developing world. It goes on to map overall estimates of employment and unemployment at an economy wide level before moving on to map the structural transformation at the sectoral level and the rise of the unorganised sector. It seeks to examine the nature of job creation, especially in some of the more prominent sectors. It also looks at the extent to which available data and employment trends provide preliminary support to various hypothesis explaining the rise of informalisation, including the role of labour regulation.

## **2. Background**

The current global discourse on growth and employment, in the aftermath of periodic and contagious financial and economic crises, is marked by a growing urgency to create and promote decent, sustainable and productive jobs. As the Global Employment Trends report (2013)<sup>1</sup> states while examining the crisis in labour markets of both advanced economies and developing economies:

*Unemployment increased by a further 4 million over the course of 2012. The epicentre of the crisis has been the advanced economies, accounting for half of the total increase in unemployment of 28 million since the onset of the crisis. But the pronounced double dip in the advanced economies has had significant spillovers into the labour markets of developing economies as well. A quarter of the increase of four million in global unemployment in 2012 has been in the advanced economies, while three quarters has been in other regions, with marked effects in East Asia, South Asia and Sub-Saharan Africa. (p.1)*

While both developed and developing countries are facing this crisis of employment in an increasingly integrated global economy, the difference in the nature of employment concerns in developing countries, their special features and distinctive patterns have also been widely recognised and analysed.

Empirical evidence over the last few decades suggests that unlike the historical growth and development experience of today's advanced countries, growth based merely on growth in labour productivity is no longer adequate in providing a solution to the problems facing the developing world in contemporary phase of globalisation. Many developing economies have experienced some GDP growth and good performance on conventional economic indicators such as growth in savings, investment and even capital accumulation.<sup>2</sup> However, this growth has not led to a substantial decline in the underutilised labour force leading to the phenomenon of 'jobless growth'.<sup>3</sup> Moreover, it has led to massive informalisation of work which is low in productivity and low paying in the absence of social security nets.

This phenomenon has raised some fundamental issues for these countries. Growth in decent and productive jobs for the unemployed and poor is essential for sustaining improvements in living standards of the masses and fighting pervasive poverty and immiserisation. Besides, historically sustainable growth and development has been accompanied with structural shifts in sectoral employment from low to high-productivity sectors and changing patterns of specialisation towards higher value-added products.<sup>4</sup> So while productivity growth remains important in a long-term growth trajectory, development goals remain elusive in the absence of a growth which generates jobs and is accompanied by structural transformation. Accordingly, these recent trends pose a significant challenge for policymakers where growth itself generates unwanted social and economic outcomes, i.e. underemployment and unemployment.

This phenomenon includes the underestimation of the degree of unemployment in open unemployment figures, given the widespread prevalence of disguised unemployment and underemployment with pervasive informalisation. As the World Development Report (WDR) 2013 states:

*Almost half of all workers in developing countries are engaged in small-scale farming or self-employment, jobs that typically do not come with a steady paycheck and benefits. The problem for most poor people in these countries is not the lack of a job or too few hours of work; many hold more than one job and work long hours. Yet, too often, they are not earning enough to secure a better future for themselves and their children, and at times they are working in unsafe conditions and without the protection of their basic rights.*  
(p.xiii)

Besides the spillover effects of periodic economic crises, the employment challenge itself is hence marked by challenges thrown by demographic shifts including rising youth and female unemployment; the need for structural transformation through the reallocation of labour from low productivity to high productivity sectors; and the effects of technological transformation and diffusion given the demands of increased trade integration and investment liberalisation. The specific issues vary given geography, resource endowments, size, level of development, nature of political regimes, but one or more or all of these features often emerge as common issues being faced by many in course of their growth and development trajectories within the framework of contemporary globalisation.

A central dilemma here for large developing economies like India relates to the mechanisms through which an economy can grow through a more productive use of underutilised resources, in particular an underutilised labour force. In other words, the sustainable development strategies are about identifying structural changes that

lead to higher growth rates while simultaneously contributing to a decline in the numbers of underemployed and unemployed. An overall improvement in living standards, and economic and social sustainability will take place only if both these outcomes are attained.

Structural transformation hence is widely held to involve the transfer of underemployed and unemployed labour force from low productivity low growth sectors (in particular the primary sector) to high productivity high growth centres in secondary and tertiary sectors. This process is retarded if ‘jobless growth’ characterised by both inadequate transfer of labour force out of the primary sector as well as large scale distress migration of workers to other low productivity, low growth and low skill jobs occurs. This has particularly been the case for the Indian economy in recent decades, where a large proportion of the labour force is stuck in a low productivity, low growth or stagnant informal and subsistence sectors<sup>5</sup>. This phenomenon is often understood as the problem of the ‘incomplete agrarian transition’<sup>6</sup> and leads to ‘disguised unemployment’<sup>7</sup> and ‘underemployment’, the latter occurring largely due to the absence of any unemployment insurance and social security nets in developing countries which forces workers into even below subsistence work and often simply adds to the number of working poor. It hence implies both underutilisation of resources as well as rising inequities and impoverishment for those stuck in such activities.

Related to the *incomplete agrarian transition* is the phenomenon of *informalisation*. Informal employment is not regulated through labour legislation, either because of its limited scope or because of deliberate avoidance or evasion. It’s desirability has been widely debated upon, where some argue that in the absence of flexible labour laws informalisation is often the inevitable route to meet the demands of a cost competitive and flexible production regime as these countries integrate with global value chains.



However, as has been widely documented, informality is generally associated with lower productivity and may result in countries being caught at lower ends of these value added chains besides being deeply iniquitous and denying basic rights, job security and enabling working conditions for the majority of workers. Moreover, developing countries can also find themselves in a trap of jobless growth where growth in informalisation is not linked to the growing dynamic sectors. It is also often distress-driven, where due to lack of employment opportunities in the growing sectors of the economy and the saturation of employment opportunities in a relatively shrinking agrarian sector, workers find themselves caught in low productivity, low growth sectors. Thus, informalisation can be as much the cause as being a symptom of lower productivity.<sup>8</sup>

Both external and domestic factors are held responsible for these widely observed phenomena. The increased liberalisation of financial flows and vertical integration of global production chains bring with them transformations in patterns of trade, investment and technological change that impact productivity, skill and labour requirements. Their macroeconomic impact on labour markets and employment patterns has also been widely discussed in literature for countries caught at different ends of this chain.

For instance, export promotion is often seen as the engine of growth for developing countries which brings in growth in output and productivity by capturing a share of external markets and diffusion of technological change. However, it can also lead to the danger of ‘fallacy of composition’<sup>9</sup>, with too many countries vying with each other to capture the market for labour intensive manufactures, leading to a race to the bottom through competitive cost cutting which enforces poor wages and working conditions and rising informality. Being stuck at lower ends of global value chains can also bring in stagnation in growth and employment and lead to increased vulnerability to changes in external demand and environment.

Given the characteristic features that mark the employment crisis being observed within the developing world, the role of policy in creating and facilitating decent, sustainable and productive employment and output growth has become crucial. As the GDR 2013 states:

*They (countries) can simply pursue growth, ensure that the labour market functions well, and hope that jobs will follow. Or they can recognise that growth does not mechanically deliver the jobs that do most for development. Jobs for women, jobs in cities and in global value chains, and jobs providing voice and protection for the most vulnerable in society may come high on the list. The precise nature of the jobs challenge depends on a country's geography, endowments, institutions, and level of development... In short, countries can leave themselves open to small gains in living standards, slow productivity growth, and fractious societies. Or, by addressing their jobs challenges, they can enjoy a self-reinforcing pattern of more prosperous livelihoods, rising productivity, and the stronger social cohesion that comes from improving employment opportunities and fairness in access to jobs.*

However, a consensus on what the content of such policies should be remains elusive, reflecting fundamental differences in locating the structural causes behind this contemporary crisis of employment. For instance, some hold labour regulation and collective bargaining to be impediments to growth in output and employment, protecting insiders at the expense of others. Here active labour market policies are viewed as distortionary and responsible for creating disincentives for work and business. For others, however, such policy interventions are essential to protect workers against the vagaries of the market and the power of the employers. They are also held to be important in improving economic efficiency, reducing information asymmetries, insuring against risks and in creating a conducive environment for sustainable long-term investments.

Hence, an assessment of the nature and quality of employment creation and the structural transformation being wrought is important from the point of view of identifying its actual links with the growth dynamics, which could enable substantiation or differentiation between competing claims. For instance, the Indian economy has witnessed a massive growth in informalisation with about 90 per cent of total employment being informal in nature. Some argue that the inflexibility of existing Indian labour laws forces the employers to resort to the use of informal labour force<sup>10</sup>. Apart from several others<sup>11</sup>, this argument could be challenged on grounds of growth not accompanied by employment generation, in other words, if “jobless growth” was self-evident.

The next section attempts an empirical investigation of the past decade to bring forth evidence on the nature and extent of the employment challenge facing the Indian economy by analysing broad macroeconomic indicators, demographics and sectoral shifts in employment. In light of which, some issues that emerge are then located in the contemporary discourse around them globally and within the country. The data sources are largely drawn from Planning Commission estimates drawn from NSS five yearly surveys and ILO key indicators of labour market.

### **3. Macro Trends Employment Growth, Unemployment Rates and the Employment Challenge**

#### **3.1 Rising GDP and Falling Employment Growth**

Long-term trends of employment<sup>12</sup> and output growth show that the two indicators were not moving in the same direction (Table 1). The table shows that in every decade, employment grew far less than the GDP growth. While in the earlier years, employment growth was roughly one-half of the GDP growth, in the most recent decade for which comparable data on GDP and employment are available, i.e.

1999/2000-2009/10, GDP growth of 7.5 per cent was accompanied by employment growth of 1.5 per cent. More striking is the fact that in the last decade, the second quinquennium, which saw GDP growing by a record 9.1 per cent, recorded the slowest growth of employment, i.e. 0.2 per cent. Interestingly, in the first half of the decade, when GDP grew at around 6 per cent, the employment growth was among the highest recorded in decades .

**Table 1 : GDP Growth and Employment Elasticity**

	1972-73 / 83-84	1983-84/ 93-94	1994-95/ 2004-05	99-00/ 04-05	2004-05/ 09-10
<b>GDP growth rates</b>	4.7	5	6.3	6	9.1
<b>Growth rate of Employment (UPSS)</b>	2.4	2	1.8	2.8	0.2
<b>Employment Elasticity</b>	0.5	0.4	0.3	0.5	0

*Source:* Papola and Sahu (2012) estimates based on various rounds of NSS data on employment and unemployment.

The employment elasticities recorded over the decades provide another perspective to the GDP-employment relationship. Employment elasticity was 0.52 during 1972-73/1983, but it declined to 0.29 during 1993-94/2004/05. But during 2004-05/2009-10, it became zero. Clearly, output and employment growth rates were moving in opposite directions.

The second characteristic feature of this trajectory were substantial fluctuations in employment and output growth trends witnessed between the first and second half of the decade. The first half (1999-05) saw a sudden rise in employment growth rates and elasticities which marked a break from the long-term trend. Interestingly, in the first half of the decade, when GDP growth slowed

marginally to around 6 per cent, employment growth was among the highest recorded in decades. However, most of this increase in growth rates and elasticities of employment were negated in the second half of the decade when the employment elasticity fell to 0 when GDP infact grew to 9.1 per cent.

Further, the higher employment growth (2.8 per cent) in 2000-05 occurred at a time when GDP growth rate actually decelerated, so it does not seem to be an employment growth propelled by higher output growth rates. Also, as Papola and Sahu (2012) demonstrate, it was accompanied by a deceleration in growth of wage and earnings, especially for those who fall in the middle of the wage spectrum.<sup>13</sup>

This raises further questions: what explains the initial rise in the first half of the decade which seemed to suggest a break in the long-term trend before most of it was negated by negative employment growth rates and elasticities in the second half? What was the nature of the initial growth in employment?

## **4. Fluctuations in the Long-Run Trend in the Past Decade: Demographic and Qualitative Indicators**

### **4.1 The Role of Age and Gender Indicators**

The demographic changes in terms of labour force participation rates (LFPRs), work force participation rates (WFPRs) and unemployment rates reveal the nature of growth and fluctuations in employment that have occurred in the past decade. While WFPRs<sup>14</sup> initially rose by 2004-05, they fell below the 1999-2000 levels by the end of the decade (Table 2). However, LFPRs<sup>15</sup> also rose and fell as a result of which the unemployment rate rose and fell overall by the end of the decade. Thus, the period of higher employment was also marked by higher unemployment rates while that of lower employment witnessed a fall in the same. Employment rose overall by a net addition of 60 million only (Table 3).

**Table 2 : LFPR and WFPR by Age Groups**

Total Persons	LFPR			WFPR		
	Total	15-24 years	25 and above	Total	15-24 years	25 and above
2000	59.5	46.5	65.0	56.9	42	63.3
2005	60.8	47.1	66.4	58.2	42.4	64.6
2010	55.6	37.7	62.4	53.6	33.9	61.1
Male						
2000	83.0	64.7	90.8	79.3	58.4	88.4
2005	83.3	64.8	90.9	79.9	58.4	88.7
2010	80.7	54.5	90.9	78.1	49.1	89.4
Female						
2000	34.3	26.8	37.5	32.9	24.2	36.6
2005	37	27.9	40.6	35.1	25.1	39.1
2010	29	19.4	32.6	27.7	17.2	31.6

*Source:* Key Indicators of the Labour Market, ILO, 7th Edition.

**Table 3 : Employment (in million)**

	15 -24 years	25 years and above	Total
<b>1999-2000</b>			
Rural male	48	152	200
Rural female	26	80	106
Urban male	15	61	
Urban female	4	14	18
<b>2004-05</b>			
Rural male	51	168	219
Rural female	28	96	124
Urban male	18	72	90
Urban female	5	19	24
<b>2009-10</b>			
Rural male	45	187	232
Rural female	19	86	105
Urban male	16	84	100
Urban female	4	19	23

*Source:* The Working Group On Employment, Planning and Policy for the twelfth five year plan estimates based on NSS data (2012-2017).

Looking further at the age, gender and rural-urban<sup>16</sup> indicators of these rates, some other trends become clearer. There has been an almost negligible rise in female employment overall (about 4 million only) while bulk of the employment was male (56 million approximately).

Within this trend, while male LFPR rose and fell negligibly between mid to end decade, it was also marked by a slight rise in non-seasonal, non-disguised employment as differences in estimates based on UPSS<sup>17</sup>, CWS<sup>18</sup> and CDS<sup>19</sup> demonstrate, where the fall in UPSS measures of LFPRs and WFPRs has been higher than that by CWS and CDS estimates.<sup>20</sup> Further, the fall in male LFPRs and WFPRs was entirely with regard to youth male employment (15-24 years) while adult (25 years and above) male employment rates remained stable. Where rural-urban figures are concerned an overall rise and fall in both rural and urban male youth employment resulting in a net loss of 2 million by the end of the decade was accompanied by a rise in adult male employment of about 25 million in rural male and 23 million in urban male employment. Thus, except for a marked decline in youth male LFPR and WFPR, towards the second half of the decade, most additions to employment have been male.

Though female LFPRs and WFPRs were also marked by a rise in the mid and a fall by the end of the decade, there was a radical quantitative and qualitative difference. The substantive rise was negated by an equally substantive fall in employment leading to a mere four million net addition to female employment at the end of the decade. In the first half of the decade, a rise of 24 million was followed by an absolute decline of 20 million. Looking further, most of this initial rise was in adult female employment, but the subsequent fall was almost equally divided between adult and youth female employment of about 10 million each. Also the entire rise and fall in employment was largely concentrated in rural India, with figures for urban India showing a mere one million rise and then a decline in youth female employment and a rise of five million in adult female employment which remained stable.

Thus, the trends also indicate the specific age and gender characteristics of fluctuations in growth of employment over the decade. Most of the rise in employment and LFPR by mid-decade was concentrated in a rise in female employment, especially in adult female employment. Also most of the fluctuations, i.e. a substantial part of both the rise and fall, were concentrated in rural India. The fall in employment and LFPR by the end of the decade however was largely in youth employment – male and female and adult female employment. Before moving to plausible explanations behind these trends, some of which have been suggested in literature, it would be worthwhile to map the qualitative changes in the nature of employment .

The first feature to be noted in terms of the mid-decade rise in employment is that the brief surge marking some departure from the long-term trend of jobless growth post liberalisation was due to an increase in the proportion of the self-employed labour<sup>21</sup> and in that of the casual labour. Regular employment actually declined (Table 4).

**Table 4: Total Employment by Employment Status (in million)**

Year	Rural			Urban			Total		
	Self-employed	Regular	Casual	Self-employed	Regular	Casual	Self-employed	Regular	Casual
1999-00	170.6	20.9	114.5	39.7	37.6	16.7	210.4	58.6	131.0
2004-05	206.5	24.4	112.5	51.8	45.0	17.1	257.7	70.1	129.2
2009-10	182.7	24.6	130.1	50.6	50.9	21.5	232.7	76.5	150.8

*Source:* The Working Group On Employment, Planning & Policy for the twelfth five year plan (2012-2017).

Self-employment in itself can be both work in own large farms and enterprises, with high income (known to occur largely in developed nations and very small enclaves within the developing world) as well as own account work in tiny farms and enterprises often resulting in earnings even lower than the poverty line income (a typical feature of underdeveloped economies). In case of India,



the self-employment component has been largely of the latter variety, mostly informal in nature and located within agriculture. Its share in total employment has been falling, as is generally expected when a developing country embarks on a developmental growth trajectory, but the fall has been much slower than what is expected or is essential for the agrarian transition to be completed.

It has declined continuously from 61.4 per cent in 1972-73 to 52.6 per cent in 1999-2000, but interestingly it rose in 2004-05, just when a brief spurt in employment growth discussed above occurred. Towards the end of the decade, however, this trend was reversed with estimates showing that self-employed accounted for 50.6 per cent of the total employed persons in 2009-10 (Table 5).

As employment figures reveal, the massive rise in self-employment by about 47 million was largely concentrated in rural India (35 million as compared to a 12 million rise in urban India), and so was the massive fall (about 24 million in rural and about 1.2 million in urban India) in the next five years. Casual employment on the other hand fell in the first half and then rose in the second, partly mitigating the rise and fall in self-employment. As pointed out above, this rise in self-employment and fall in casual employment was the reversal of the long-run trend (before it was resumed by the end of the decade) and hence was an unusual feature of employment growth in the first half of the decade. Regular employment rose by about 18 million, with most of the rise concentrated in Urban India.

**Table 5 : Unemployment Rates as per UPS, CWS and CDS measures**

	<b>Unemployment Rates: Percent of Labour Force</b>			
	<b>Usual Status</b>	<b>Usual ADJ</b>	<b>CWS</b>	<b>CDS</b>
1993-94	2.78	1.96	3.67	6.03
1999-00	2.75	2.25	4.35	7.28
2004-05	3.19	2.4	4.49	8.23
2009-10	2.51	2.09	3.61	6.52

*Source:* The Working Group On Employment, Planning & Policy for the twelfth five year plan (2012-2017).

Thus, putting together these trends, certain characteristic features emerge in mapping these fluctuations:

- More than 93 per cent of the overall rise in employment was in male employment and was evenly divided between rural and urban India.
- The fluctuation in employment in terms of a rise and then a fall in absolute employment between mid and end decade, was largely concentrated in a rise in self-employment ( 47 million approximately), two thirds of which was located in rural India and about a half of which was in nature of a rise in female employment. By the end of the decade most of these trends were reversed, with a substantial fall in rural self-employment (about 24 million ) and in female employment (to the tune of 20 million).
- The other unusual feature which marked the second half of the decade was the fall in youth LFPR and employment, alongwith a fall in these rates for adult female employment, which led to a fall in unemployment rates, despite a mere three million overall increase in employment during these five years.

This provides some grounds for explanations put forward in literature<sup>22</sup> to explain these trends. Where the first half of the decade is concerned, the rise in self-employment and adult female employment has been suggested to be largely of a spurious nature. There is no evidence to suggest the rise in self-employment opportunities noted in 2000-05 were productive or higher income generating, rather it is pointed out that “a large number of own-account enterprises in the unorganised manufacturing sector closed down resulting in loss of 1.4 million jobs, mostly in the self-employment category during 2000-2005. It appears that the increase in the proportion of self-employed was primarily a result of the inability of workers getting added to

farming households to find wage labour in agriculture or move out to non-agricultural wage employment.”<sup>23</sup> Further as Papola and Sahu (2012) point out<sup>24</sup>:

*It is, in fact, a relatively slower growth, particularly, in agriculture during 2000-05 that seems to explain the unusual features of labour force and employment situation in 2004-05. Agriculture growth averaged to 1.5 per cent during this period and was less than one per cent during 2004-05. It appears that foodgrains production particularly suffered as the per capita availability of cereals and pulses declined. With declining incomes, it appears that more and more women (who would otherwise have been in domestic work) and children (who would otherwise have been in schools) joined the labour force and participated in workforce, swelling the figures of employment. In other words, the 2004-05 estimates of labour force and workforce seem to have been significantly inflated as a good part of employment could be regarded as 'spurious'. (p.30-31)*

This is further proved by the rise and fall in adult female inactivity rates as shown in Table 6. Thus, part of the rise, which could be captured largely by a fall in adult female and rural self-employment, occurred due to reasons mentioned above.

**Table 6: Inactivity Rate (per cent)**

	<b>1999</b>	<b>2004</b>	<b>2010</b>
<b>Total</b>			
15+	40.3	39.4	44.4
15-24	53.0	53.0	62.3
25-34	30.8	29.5	34.3
35-54	28.6	27.2	30.9
<b>Male</b>			
15+	16.9	16.8	19.3
15-24	34.8	35.2	45.5
25-34	3.3	2.8	3.0
35-54	3.2	3.0	2.2

*Table 6 continued...*

Table 6 continued...

<b>Female</b>			
15+	65.5	63.6	71.0
15-24	72.7	72.3	80.6
25-34	60.9	58.4	68.1
35-54	56.3	53.5	61.6

*Source:* Key Indicators of the Labour Market (2010).

## **4.2 Fluctuations and Growth in Average Real Wages and a Rising Wage Productivity Gap**

A clear trend of a rising wage productivity gap is discernible while comparing estimates of growth indices in labour productivity and wages in formal Industry as a benchmark. The productivity wage gap rose with rise in productivity being twice to almost being thrice the rise in wages as a rough measure indicating higher growth has also been accompanied by rising income inequalities.

**Table 7: Indices of Wages and Labour Productivity**

	<b>Wage Index ( 1993-94=100)</b>	<b>Index of Labour Productivity ( 1993-94=100)</b>
1993-94	100	100
1999-00	180.6435	228.0683
2004-05	235.1013	410.7054
2009-10	384.6922	655.301

*Source:* Author's estimates based on ASI and RBI data .

A comparison of wage rates among casual workers *vis-à-vis* regular wage rates reveals that casual workers, both in rural and urban areas, receive wage rates that are a little above one-third of what the regular workforce is paid. The regular-casual wage differential widened sharply during the post-liberalisation period as compared to the pre-reform period.

Between 1999-2000 and 2004-05, the gap reduced, but only due to a decline in regular wages, rather than any significant increase in the casual wage rates. Further as Karan and Selvaraj (2008) state, based on NSS estimates pre-and post-liberalisation: “The wage growth of urban regular workers witnessed a mild downturn from 2.42 per cent per annum in the pre-liberalisation period (1983 to 1993-94) to 2.19 per cent per annum during the post-reform years (1993-94 to 2004-05). In fact, the wage growth of regular workers during the period, 1999-2000 to 2004-05, has been negative to the extent of -0.91 per cent per annum in rural areas, and -0.73 per cent per annum in urban areas.”

Thus, the period 1999-00 – 2004-05, though marked by a brief spurt of growth in employment, was also marked by both higher rates of unemployment (Table 5) and lower rates of wage growth. It does seem then that the unusual employment growth was marked by a rise in youth and adult female LFPRs which fell substantially by the end of the decade – a massive rise in self-employment most of which was vulnerable employment and informal in nature; and lower output growth rates, higher unemployment rates and lower wage growth rates. All of this consolidates the evidence in favour of the contention that a large part of this growth was distress-driven and was of a spurious nature than part of a sustainable growth trajectory.

Between 2004-05 and 2009-10, the average real wage rates experienced some growth and while the rural urban wage gap increased for regular work (due to higher growth in urban regular wage rates) and declined for casual work (due to a higher wage growth of wage rates for casual employment). In rural areas, the regular casual wage gap declined due to higher growth in casual wages, while in urban area, the gap widened due to higher growth in regular wages. Hence, overall wage rates for casual work are growing faster in rural India while that for regular work are growing faster in urban India. This is also accompanied by a higher growth in regular employment in urban and casual employment in rural areas, while self-employment in both cases has been experiencing a substantial decline.

**Table 8: Average Daily Real Wage Rate (in 2004-05 prices)**

	Rural		Rural		Urban		Urban	
	Regular		Casual		Regular		Casual	
	Male	Female	Male	Female	Male	Female	Male	Female
2004-05	144.93	85.53	55.03	34.94	203.28	153.19	75.1	43.88
2009-10	165.13	103.31	67.29	45.69	259.77	212.68	90.36	52.85
Average annual growth rate in real wages	2.79	4.16	5.56	7.77	4.46	6.15	4.2	4.09

**Note:** The wages for urban workers have been deflated by consumer price index (industrial workers) CPI [(IW)] and that of rural workers by consumer price index (agricultural labour) [CPI(AL)]. This wage refers to the wage for casual workers engaged in work other than public work.

**Source:** Chowdhary(2011) estimates based on NSS data.

Meanwhile, the female regular workers not only receive lower wages, but that the differential is quite stark, roughly 40 per cent less in rural areas and 25 per cent less in urban areas for regular workers during 2004-05, though the gap had declined slightly by 2009-10. In case of casual workers, the differential is lower as compared to regular wages but is higher for urban India. On the whole, the gender differential in wages across both categories had been declining till 2009-10, implying a higher wage growth for female workers as compared to male workers over the years. This could be partly due to high initial wage gaps and repression of female wages, partly because of withdrawal of women from the labour force post 2004-05 as discussed above, thereby raising average wages, and partly because of higher levels of educational attainment.

Thus, this half of the decade was marked by falling youth and adult female participation rates; a massive decline in self-employment; higher output growth rates, lower unemployment rates and higher growth in real wage rates. Two reasons seem to be behind these starkly opposing trends *vis-a-vis* the first half of the decade. In part, it was a return to the long-run growth trajectory post liberalisation where

employment growth, that was largely spurious under the category of self-employment and mostly brought about by a rise in youth and adult female LFPRs, was largely negated through a substantive decline in overall employment through a reversal of all these trends.

## 5. LFPR and the Role of Enrollment in Higher Education Institutions

The fall in youth LFPRs and employment on the other hand, provides clue to the second half of a plausible explanation suggested<sup>25</sup> behind such overall decline in employment growth rates and LFPRs in these five years when combined with changes in enrolment status in educational institutions of the youth segment of the population overtime. As Table 9 highlights, there was a remarkable rise in the proportion of youth attending educational institutions at above secondary levels during this period, implying that part of the withdrawal in youth LFPR could be explained by those enrolling in institutions of higher learning.

**Table 9: Current Status of Attending Educational Institutions  
(15-24 age group)**

	1993-94	1999-00	2004-05	2009-10
<b>Male</b>				
Not Attending	68.57	66.91	65.47	54.59
Up to Primary	1.47	1.16	0.68	0.45
Middle level	3.83	5.07	3.83	2.76
Secondary & above	26.13	26.85	30.02	42.2
<b>Female</b>				
Not Attending	82.76	79.32	76.03	66.6
Up to Primary	0.95	0.88	0.57	0.5
Middle level	2.13	2.95	2.81	2.11
Secondary & above	14.16	16.86	20.59	30.79
<b>Total</b>				
Not Attending	75.37	72.82	70.53	60.25

*Table 9 continued...*

Table 9 continued...

Up to Primary	1.17	1.05	0.63	0.48
Middle level	3.02	4.03	3.34	2.45
Secondary & above	20.44	22.11	25.5	36.83

**Source:** Papola and Sahu (2012) estimates based on various rounds of NSS data on employment and unemployment.

At the same time as the figures on incidence of unemployment for 15 years and above by level of education over 2004-5 and 2009-10 (Table 10) reveal, the rise in unemployment is correlated with the level of education and the unemployment rates have fallen marginally in all probability due to lower LFPRs. This indicates a gap between employment and educational attainment, suggesting that policymakers have a bigger problem in hand in the coming years when those who have withdrawn swell the ranks with expectations of better jobs in coming years.

**Table 10: Incidence of Unemployment for 15 years and above by Level of Education, 2004-05 and 2009-10 (UPSS)**

Level of Education	Primary	Middle	Secondary	Higher Secondary	Diploma/Certificate	Graduate	Post Graduate & Above	All Levels of Education
2004-05	1.4	2.7	4.8	6.4	10.4	8.8	8.1	2.3
2009-10	1.2	2.1	2.7	5.2	9.6	6.9	6.7	2

**Source:** Key Indicators of the Labour Market, ILO, 7th Edition.

Thus, while there has seemingly been a return to the long-run growth trajectory with a declining employment content by the end of the decade, projections based on demographic factors indicate a further rise in numbers of those seeking gainful employment opportunities, suggesting a further widening of the gap between actual demand for and the supply of labour with all its socio-economic consequences in the next few years.



## 6. The Informal Sector, Vulnerable Employment and Working Poverty

As the discussion above, not only employment growth in the last decade of high GDP growth has been low, a large proportion of it has been of a fluctuating nature with low growth of regular employment. This indicates the absence of sustained growth of decent employment opportunities and warrants a closer look at the nature and quality of employment creation.

**Table 11: Percentage Distribution of Total workers**

Year	Informal Sector (% distribution)	Formal Sector (% distribution)	No. of workers (million)
<b>Total Workers</b>			
1999-00	86.2	13.8	396.39
2004-05	86.3	13.7	457.47
2009-10	84.2	15.8	460.42
<b>Informal Workers</b>			
1999-00	93.6	6.4	362.75
2004-05	93.1	6.9	422.61
2009-10	91.2	8.8	423.17
<b>Formal Workers</b>			
1999-00	5.3	94.7	33.64
2004-05	4.1	95.9	34.85
2009-10	4.5	95.5	37.25

*Source:* NCEUS (2009) and Kannan (2011).

Out of the 460 million people in the workforce in 2009-10, an overwhelming majority are employed in informal sector jobs. The already miniscule share of formal employment in the economy declined over the decade ending 1993-2005 from 8.26 per cent to 6.75 per cent, indicating that about 93 per cent of employment in the economy now lies within the unorganised sector (Table11). The increase in employment during 1999-2005 noted above, the

only period when there was a break in the long-run trend, was almost entirely located within it. Even in the formal sector, most employment growth in the last sector has been informal in nature, its share increasing from 6.4 to 8.8 per cent in the formal sector while the share of formal employment declined from 93.6 to 91.2 per cent (Table 10). Most of the rise in employment in 2004-05 was clearly informal in nature as the rise in percentage share of informal sector workers between 1999-00 and 2004-05 indicates.

The Key Indicators of the Labour Market (KILM), provide another classification of employment between waged and salaried workers and self-employed, where self would correspond to self and casual together in terms of national classification. These two groups of workers are presented as percentages of the total employed for both sexes and for males and females separately. Subcategories of the self-employed group include self-employed workers with employees (employers), self-employed workers without employees (own-account workers), members of producers' cooperatives and contributing family workers (also known as unpaid family workers).

A higher proportion of waged and salaried workers would be indicative of a higher stage of economic development. If the proportion of own-account workers (self-employed without hired employees) is sizeable, it generally signifies a large agriculture sector and low growth in the formal economy. Contributing family work is a form of labour – generally unpaid, although compensation might come indirectly in the form of family income – that supports production for the market. It is particularly common among women, especially women in households where other members engage in self-employment, specifically in running a family business or in farming. Where large shares of workers are contributing family workers, there is likely to be poor development, little job growth, widespread poverty and often a large rural economy. Own account workers and contributing family members together constitute the proportion of vulnerable employment.

As can be seen from Table 12, amongst the self-employed, employers constitute a negligible portion of total self-employed. Rest all, i.e. 85 per cent is vulnerable employment and coincides with estimates for informal sector employment. As is to be expected, share of female employment is proportionately lowest for employers category and highest in case of contributing unpaid members .

**Table 12: Percentage Distribution of Employment by Employment Status**

	<b>Wages &amp; salaried workers (employees) ('000)</b>	<b>Total self-employed workers (a + b + c) ('000)</b>	<b>Empl-oyers (a) ('000)</b>	<b>Own-account workers (b) ('000)</b>	<b>Contributing family workers (c) ('000)</b>	<b>Persons in vulnerable employment (b + c) ('000)</b>
<b>Total Persons</b>						
1994	15	85	1.9	62.4	20.7	83.1
2000	15.7	84.3	0.9	63.4	19.9	83.4
2005	15.6	84.4	1.3	60.9	22.2	83.1
2010	18.1	81.9	1.1	63.9	16.9	80.8
<b>Male</b>						
1994	17.8	82.2	2.4	66.1	13.7	79.8
2000		81.6	1.1	67.8	12.8	80.5
2005	18.1	81.9	1.6	66.9	13.4	80.3
2010	19.4	80.6	1.3	68.3	11	79.3
<b>Female</b>						
1994	8.2	91.8	0.7	53.4	37.8	91.1
2000	3.7	90.8	0.4	52.6	37.8	90.4
2005	10	90	0.5	47.3	42.3	89.6
2010	14.5	85.5	0.4	51.1	33.9	85

*Source:* Key Indicators of the Labour Market, ILO, 7th Edition.

Vulnerable employment in itself implies employment with high economic risks in terms of absence of job and social security covers, and, as discussed above, is widely prevalent in developing economies often masking unemployment and severe underemployment. However, worse still is the status of the working poor – those employed but able

to earn only a fraction of what is regarded as minimum necessary to overcome poverty. Estimated to be about 20 per cent in 1999-2000 and 21 per cent in 2004-05<sup>26</sup>, they in fact constitute the core of the employment problem in India.

As can be seen from Table 13, their number has declined slightly over 1999-00 from 98 to about 94 million and about 70 per cent of them are located in rural India and a proportionately higher amount of them are women, though the share of urban poor has increased by about three million in this period. The casual and the self-employed constitute about 90 per cent of the total working poor indicating the poor quality of such employment, with casual employment accounting for the maximum share (about 40 per cent) in it. At a time when self-employment rose and casual employment declined, the absolute number of working poor, who were self-employed, also rose and those in casual employment declined, while working poverty declined overall.

**Table 13: Working Poor (in million)**

	1999-00				2004-05			
	Self-employed	Regular	Casual	Total	Self-employed	Regular	Casual	Total
Rural Persons	33.0843	2.428557	41.60007	77.1426	33.20295	2.264829	34.13371	69.5261
Urban Persons	9.368303	4.17673	7.330594	20.9526	11.8366	5.173947	7.1649	24.1908
All persons	42.45261	6.605287	48.93066	98.0952	45.03955	7.438776	41.29861	93.7169

*Source:* Author's estimates based on NSS data.

These estimates of working poverty are much higher through international poverty line standards with 40 per cent at US\$ 1 and about 75 per cent of total employment as working poor by the US\$ 2 estimate, the proportion being much higher among females.

**Table 14: Distribution of Working Poor by Age Groups**

	Number of working poor at the US\$ 1.25 a day level ('000)	Number of working poor at the US\$ 2 a day level ('000)	Share of working poor at the US\$ 1.25 a day in total employment (per cent)	Share of working poor at the US\$ 2 a day in total employment (per cent)
Total Persons				
15+	142467.7	270578.8	39.2	74.5
15-24	31037.7	58360.4	42.3	79.6
25+	111430	212218.4	38.4	73.2
Male				
15+	98830	192783.3	37.5	73.1
15-24	21988.1	42661.5	40.5	78.5
25+	76841.8	150121.8	36.7	71.7
Female				
15+	43637.7	77795.5	43.9	78.3
15-24	9049.6	15698.9	47.7	82.8
25+	34588.2	62096.5	43	77.2

*Source:* Key Indicators of the Labour Market, ILO, 7th Edition.

## **7. Structural Transformation by Economic Activity and the Comparative Role of Manufacturing and Construction (1999-2010)**

The overall increase in employment of 60 million over the decade was accompanied by substantial structural transformation at the sectoral level. Manufacturing employment under such circumstances registered a growth of mere 4.5 million approximately from a much larger base, lower than additions to agriculture, services, trade, transport and communication – all of which registered a growth of about five million approximately from much smaller bases (except for agriculture). The sector contributing a spectacular 35 million to employment was construction. Services as a whole contributed an addition of 18.7 million (Table 15).

The shares in output and employment also were stable or declining in most other sectors that were considered important from the

perspective of growth and transition over the decade. Manufacturing in particular experienced a fall in its share in employment from 11.1 per cent to 10.5 per cent while its share in total output remained approximately the same at 15 per cent. Again, construction witnessed a massive rise in its share from 4.4 to 11.3 per cent at the end of the decade surpassing manufacturing's share in total employment while its share in total output remained half that of manufacturing at 7.7 per cent (Table 17).

**Table 15: Employment Across Various Sectors (in million)**

Sectors	1999-00	2004-05	2009-10	1999-2005	2004-2010	1999-2010
Agriculture	237.67	258.93	243.21	21.25	-15.71	5.54
Manufacturing	44.05	55.77	48.54	11.72	-7.23	4.49
Mining & quarrying	2.17	2.64	2.75	0.47	0.12	0.59
Electricity, gas & water supply	1.13	1.3	1.18	0.17	-0.12	0.05
Construction	17.54	26.02	52.16	8.48	26.14	34.62
Non manufacturing	20.84	29.96	56.1	9.11	26.14	35.25
Trade	36.63	43.36	42.08	6.74	-1.29	5.45
Hotels & restaurants	4.62	6.1	5.91	1.48	-0.19	1.29
Transport, storage & communication	14.61	18.47	19.36	3.86	0.89	4.75
Banking (& insurance)	2.25	3.1	3.74	0.84	0.65	1.49
Real estate	2.67	4.65	5.75	1.98	1.1	3.08
Public administration & Defence	10.48	8.84	9.04	-1.64	0.2	-1.44
Education	8.47	11.43	11.09	2.96	-0.34	2.62
Health	2.62	3.34	3.44	0.73	0.1	0.83
Other community, social & personal services	9.99	8.75	8.29	-1.24	-0.46	-1.7
Other services	1.86	4.76	3.61	2.9	-1.14	1.76
Services	94.2	112.81	112.33	18.77	-0.48	18.29
Total	396.76	457.46	460.18	60.7	2.72	63.42

**Source :** The Working Group On Employment, Planning & Policy for the twelfth five year plan (2012-2017).

While this was in keeping with a long-term trajectory of downward trend in employment growth and employment intensity of output growth post liberalisation, the decade also witnessed massive fluctuations in employment and output growth across different sectors, again in keeping with macro trends above, especially where Industry as a whole was concerned.

**Table 16: Employment Elasticity, CAGR of Employment and GVA, 1999-2000, 2004-05, and 2009-10**

Year	Employment Elasticity		CAGR		GVA (CAGR)	
	1999-05	2004-10	1999-05	2004-10	1999-05	2004-10
Agriculture	0.84	-0.42	1.44	-1.04	1.71	2.53
Manufacturing	0.76	-0.31	4.01	-2.29	5.34	7.85
Mining and quarrying	0.82	0.21	3.3	0.72	4.04	3.41
Electricity, gas & water supply	0.54	-0.28	2.3	-1.57	4.29	5.95
Construction	0.78	1.54	6.8	12.29	8.9	7.64
Non-manufacturing	0.92	1.63	6.23	11.02	6.83	6.47
Trade	0.35	-0.07	2.85	-0.5	8.51	7.54
Hotels & Restaurant	0.53	-0.08	4.75	-0.52	9.22	7.05
Transport, storage & communication	0.48	0.08	3.98	0.79	8.57	10.53
Banking (& insurance)	1.24	0.27	5.42	3.22	4.36	12.88
Real estate	1.09	0.48	9.71	3.6	8.81	7.81
Public administration & Defence	-0.91	0.05	-2.8	0.37	3.15	7.61
Education	0.88	-0.08	5.12	-0.5	5.87	6.96
Health	0.52	0.15	4.16	0.5	8.34	3.5
Other community, social & personal services	-0.1	-0.14	-2.18	-0.89	31.56	6.63
Other services	0.52	-0.68	17	-4.48	51.5	7.02
Services	0.45	-0.01	3.12	-0.07	7.05	8.52
Total	0.44	0.01	2.4	0.1	5.6	7.1

**Source:** The Working Group On Employment, Planning & Policy for the twelfth five year plan (2012-2017).

The first half of the decade (1999-05) saw a rise in employment growth rates and elasticities across different sectors.<sup>27</sup> However, most of this increase in growth rates and elasticities of employment was negated in the second half of the decade (2005-2010) where employment fell massively across sectors, the biggest fall being in manufacturing after agriculture. This was also accompanied by rising growth rates in most sectors (including a 8 per cent growth rate in manufacturing) and more or less stable growth rates in some sectors, clearly indicating that most growth in this period was jobless in its nature. The only reason behind net employment in the second half not becoming negative was due to a spectacular rise of employment in the largely an unorganised sector of construction (Table 16).

**Table 17: Share of employment and GVA, 1999-2000, 2009-10**

Sectors	1999-2000		2009-2010	
	Employment	GVA	Employment	GVA
Agriculture	59.9	23.8	52.9	19
Manufacturing	11.1	15.5	10.5	15.3
Mining & quarrying	0.5	3.1	0.6	2.9
Electricity, gas & water supply	0.3	2.3	0.3	2.1
<b>Construction</b>	4.4	6.4	11.3	7.7
Non-manufacturing	5.3	11.8	12.2	12.7
Trade	9.2	12.4	9.1	14.6
Hotels & restaurants	1.2	1.2	1.3	1.5
Transport, storage & communication	3.7	7.1	4.2	8.4
Banking (& insurance)	0.6	6.2	0.8	5.8
Real estate	0.7	7.5	1.3	9
Public administration & defence	2.6	6.8	2	5.9
Education	2.1	3.8	2.4	3.9
Health	0.7	1.5	0.7	1.8
Other community, social & personal services	2.5	2.1	1.8	8
Other services	0.5	0.2	0.8	1.8
Services	23.7	48.9	24.4	53
Total	100	100	100	100

*Source:* The Working Group On Employment, Planning & Policy for the twelfth five year plan (2012-2017).



A more detailed cross sectional look at shares in employment and output alongwith respective employment elasticities gives us estimates of employment intensities of growth in different sectors. Manufacturing employment growth rates, elasticities and share in total employment all fell after an initial rise in the first half of the decade and actually turned negative. While share of manufacturing employment in total employment fell from 11.1 to 10.5 per cent, employment elasticities and growth rates also turned negative from 0.76 to -0.31 per cent and 4 per cent to – 2.3 per cent, respectively. As a result, the initial rise of 11.72 million in the first half of the decade was negated by a substantial fall of 7.23 million in the second half. This occurred at a time when growth rate of output actually rose substantially from 5.3 per cent to almost 8 per cent (Tables 16 and 17).

The sectors where manufacturing growth could have spillover effects such as trade and transport, storage and communication, banking followed the same kind of trajectory broadly of rising employment and employment elasticities in the first half of the decade followed by a fall in the second half when output or value added growth rates actually rose. Services as a whole also experienced a similar trend, except in case of sectors dominated by the public sector with employment intensities of growth higher but from very small bases in some growing sectors like IT.

## **8. Informalisation by Economic Activity**

Again, the larger macro trends of growing informalisation are visible across sectors and more prominently in sectors with a substantive share in employment, namely, agriculture, manufacturing, construction, trade, transport, storage and communication. Increase of about 10 million in self-employment in agriculture over the 2000-05 seems to be largely distress-driven disguised unemployment as discussed above.

**Table 18: Employment UPS (million)**

	Organised			Unorganised		
	1993-94	1999-2000	2004-05	1993-94	1999-2000	2004-05
Agriculture	1.5	1.4	1.4	204.5	213.4	223.6
Mining	1.1	1	0.9	1.5	1.2	1.6
Manufacturing	6.4	6.7	6.3	30.2	34.1	45.3
Electricity, water etc.	1.4	1	1.2	0	0	0
Construction	1.2	1.2	1	10.7	16	24.7
Trade, Hotel & Rest	0.4	0.5	0.6	26.6	39	47.8
Trans, Storage, Comm	3.1	3.2	3.2	7.4	11.2	15.4
Finance, insurance, real estate, etc.	1.5	1.7	1.9	1.3	3	5.8
Community, Social & personal service- Public	9.4	9.8	9.5	0	0	0
Community, Social & personal service-Private	1.6	1.7	2.3	24.2	20.6	24.2
Services FIREB & CSP	12.5	13.1	13.7	25.5	23.7	30
Total	-27.6	-28.1	-28.2	-306.5	-338.7	-388.3
Nonagriculture	26.1	26.7	26.8	101.9	125.3	164.7
Secondary	10.1	10	9.4	42.4	51.4	71.5
Tertiary	16	16.8	17.4	59.5	74	93.2

*Source:* Planning Commission, Databook for DCH, April 2012.

The entire increase of 11.2 million in manufacturing during 2000-2005 was in the unorganised sector (the rise in employment within the organised sector also being informal in nature ) with the share of informal sector employment rising from 83 per cent to 87 per cent in the decade ending 2005<sup>28</sup> (this rise was, however, negated in the next five years with a fall of 7.2 million in employment, almost half of which also fell within the formal sector). The spectacular rise in employment within construction over this period was also informal in nature with formal employment declining in absolute numbers. Similar was the case of ‘trade, hotels, restaurants’ and ‘transport, storage, communication’ sectors where 99 per cent and 96 per cent of the total employment, respectively, was informal in nature with formal

sector employment being almost stagnant (Table 18). The latest NSS survey further brings out the fact that even this rise in employment across these sectors over 2004-2005 was largely negated over the next five years with most sectors registering negative employment growth, and if it were not a rise in employment in construction, the overall employment growth would have turned negative in the absolute (Table19).

**Table 19: Growth of Employment (UPSS)**

Sector	1993-94/ 1999-00	1999-00/ 2004-05	2004-05/ 2009-10	1993-94/ 2004-05	1999-00/ 2009-10
Primary Sector	0.05	1.40	-1.63	0.67	-0.13
Mining & Quarrying	-2.11	2.41	3.00	-0.08	2.70
Manufacturing	1.62	5.06	-1.06	3.17	1.95
Utilities	-5.89	3.22	1.02	-1.86	2.11
Construction	6.38	8.18	11.29	7.19	9.72
Secondary Sector	2.44	5.83	3.46	3.97	4.64
Trade, Hotelling, etc.	6.28	4.01	1.10	5.24	2.54
Transport & Communication, etc.	5.09	5.23	2.14	5.16	3.68
Financing, Insurance, Real estate & business services	5.28	9.62	5.77	7.23	7.68
Community, social and personal services	-1.48	2.71	0.99	0.40	1.85
Tertiary Sector	2.85	4.08	1.59	3.41	2.83
Total	1.04	2.81	0.22	1.84	1.50

*Source:* Papola and Sahu (2012) based on various rounds of NSS data on employment and unemployment.

## **8.1 The Factors Behind Informalisation: Labour Laws or Patterns of Trade, Investment and Structural Transformation in Production**

What explains this growing informalisation of the Indian economy? There have been two different arguments which have been discussed

in literature. One set of arguments claim that it is the restrictive Indian labour laws which result in employers seeking the route of informalisation to meet the demands of a growing economy.<sup>29</sup> This is said to have contributed to the rise of unemployment due to *increasing recourse to capital intensive techniques of production by firms* within formal manufacturing contributing to rising gaps in employment, wages and productivity between the formal and informal sector. Simultaneously, regulation is held to be one of the main reasons for the *displacement of employment to the low paid informal sector* characterised by poor working conditions and absence of social security and welfare provisions for workers. In the absence of non restrictive laws, this is posited as the only path to growth and development.

The second set of arguments<sup>30</sup>, however, points out that informalisation is rooted in far deeper structural causes located in the transformation of trade and investment patterns post liberalisation, and is linked to the manner in which the economy has become integrated with global production and service chains. It is also pointed that this is part of a larger global trend of informalisation within the developing world. It is doubtful that this informalisation either leads to a sustainable Industrial trajectory or helps in creation of productive and decent employment over time and hence is clearly not in the interests of *long-term growth and development*. Infact, here the argument can be turned around to state that *informalisation exists* because of greater permissiveness of Indian laws, which *allows employers to escape their myriad responsibilities towards workers through this route*.<sup>31</sup> This often merely provides them with methods of cutting costs and raising profitability at the costs of workers in the short-term by escaping legislation all together.

The role of labour regulation has been extensively dealt with in literature and has not provided any established empirical or theoretical base for the first set of arguments.<sup>32</sup> At present, it would be instructive

to look at two premises which question this assumption on the basis of available trends, data and estimates. The first premise is to look at how productive the brief spurt of growth in the unorganised sector was and compare it with formal sector estimates. This will help us gauge whether the employment was such which met the needs of an economy on a higher growth path or was it of low productivity and quality, mostly lying outside the growth process, a large part of which could be distress driven and be spurious in nature. If productivity gaps between the organised and unorganised sector have been closing down and rising within the unorganised sector, the first hypothesis is provided with some support, but if the reverse has happened, the second hypothesis becomes far more plausible.

Table 20 provides productivity per worker estimates between 1993-94 to 2004-05. It is very clear from that not only are the productivity gaps between formal and informal sector high, they also have been rising over this period suggesting widening income inequalities. More crucially, *the rise in unorganised sector unemployment in itself has been associated with falling productivities per worker.*

**Table 20: Value Added per Worker (Rs.)**

	Organised			Unorganised		
	1993-94	1999-2000	2004-05	1993-94	1999-2000	2004-05
Agriculture	96489	109278	102328	17129	19500	20422
Mining	199463	298677	416865	11515	22750	24593
Manufacturing	146727	190173	301180	16578	22296	21162
Electricity, water etc.	109245	238348	228650			
Construction	267100	341647	568334	35427	38829	38723
Trade, Hotel & Rest	291784	797428	1324354	51145	53546	60339
Trans, Storage, Comm	103318	152179	278165	35015	51441	75745

*Table 20 continued...*

Table 20 continued...

Finance, insurance, real estate etc.	363447	665753	880097	29929	34184	38558
Community, Social & personal service-Public	103461	165691	197652			
Community, Social & personal service-Private	82052	152600	184364	16067	27057	36906
Services FIREB & CSP	132710	226872	290242	46308	66933	72053
Total	-140606	-221335	-313662	-23518	-29025	-32803
Nonag	143106	227142	324812	36341	45245	49611
Secondary	162091	224062	331649	21174	27457	27296
Tertiary	131171	228969	321114	47141	57598	66738
Tertiary except Public CSP	170317	317606	469698	47141	57598	66738

*Source:* Planning Commission, Databook for DCH, April 2012.

In manufacturing as well as construction, the two sectors which recorded higher growth of employment within formal sector, the productivity gap between formal and informal sector rose from a ratio of 8.5:1 in 1993-94 to that of 14.5:1 in 2004-05. At the same time within the informal sector productivity per worker fell drastically in manufacturing by a factor of 1134. Construction and transport, and storage and communication also witnessed substantial decline in productivity per worker. The only sector where productivity per worker rose marginally was trade, hotel and restaurants, but here also the rise in productivity per worker in the shrinking formal sector was much higher.

Thus, the rise in employment within the unorganised sector in the period 2000-05 could not be seen as growth enhancing or part of a higher growth trajectory at the very least. It challenges the claim that rising employment is part of a higher growth trajectory where it's merely restrictive labour laws which are hindering growth of formal sector employment in an otherwise growing economy. If labour productivities are falling, this does not bode well for the growth trajectory being embarked upon.

The second premise which refutes this assumption that growth is employment oriented, even if the rise is within the unorganised sector to escape the restrictive labour laws, is the fact that in the second half of the decade, most of this employment growth was negated in any case. As brought out above, at a time when growth rates picked up across the sectors in 2004-05 – 2009-10, employment actually declined and even turned negative across board except in case of construction.

## **9. Role of Construction**

What was the nature of growth in employment in the construction sector which surpassed manufacturing's share in total employment and added about 34 million to total employment over the last decade? A break up of the total employment generation by rural-urban areas provides an interesting picture. Though the growth rate of construction employment has been consistently high at about 6 per cent but declining slightly in urban areas, it rose to about 8.5 per cent in 1993-94 – 2003-04 and reached a peak of 12 per cent over 1999- 2010 in rural areas. This is also accompanied by a fall in manufacturing employment growth in rural areas and a rise in urban areas (though the rate fell over the second half of the decade). Again, in the second half of the decade, marked by fall in employment growth rates which even turned negative in case of agriculture and manufacturing, rural construction was the only sector which saw a rise in this growth rate (Table21).

**Table 21: Growth of Rural Employment (UPSS)**

<b>Sector</b>	<b>1993-94/ 99-2000</b>	<b>1999-00/ 2004-05</b>	<b>2004-05/ 2009-10</b>	<b>1993-94/ 2004-05</b>	<b>1999-00/ 2009-10</b>
Primary Sector	0.20	1.29	-1.65	0.69	-0.19
Mining & Quarrying	-1.25	2.11	5.21	0.26	3.65
Manufacturing	1.62	4.09	-2.74	2.74	0.62
Utilities	-8.29	1.83	1.19	-3.82	1.51
Construction	6.44	10.50	13.61	8.27	12.04
Secondary Sector	2.55	6.03	4.65	4.11	5.34
Trade, Hotelling, etc.	3.76	6.23	0.66	4.88	3.41
Transport & Communication, etc.	6.75	6.33	2.58	6.56	4.44
Financing, Insurance, Real estate & business services	4.27	8.41	2.07	6.13	5.20
Community, social and personal services	-0.99	1.38	0.16	0.08	0.77
Tertiary Sector	2.12	4.52	0.90	3.20	2.70
All Non- Agricultural	2.32	5.25	2.83	3.64	4.03
Total	0.67	2.29	-0.34	1.40	0.96

*Source:* Papola and Sahu (2012) based on various rounds of NSS data on employment and unemployment.

**Table 22 : Growth of Urban Employment (UPSS)**

<b>Sector</b>	<b>1993-94/ 99-2000</b>	<b>1999-00/ 2004-05</b>	<b>2004-05/ 2009-10</b>	<b>1993-94/ 2004-05</b>	<b>1999-00/ 2009-10</b>
Primary Sector	-3.48	4.47	-1.17	0.05	1.61
Mining & Quarrying	-3.69	3.00	-1.87	-0.70	0.53
Manufacturing	1.63	6.05	0.45	3.61	3.21
Utilities	-4.16	4.05	0.93	-0.51	2.47
Construction	6.29	4.68	6.60	5.56	5.64

*Table 22 continued...*



Table 22 continued...

Secondary Sector	2.32	5.60	2.01	3.80	3.79
Trade, Hotelling, etc.	8.08	2.53	1.43	5.52	1.98
Transport & Communication, etc.	3.94	4.36	1.77	4.13	3.06
Financing, Insurance, Real estate & business services	5.59	9.96	6.67	7.55	8.30
Community, social and personal services	-1.87	3.75	1.58	0.65	2.66
Tertiary Sector	3.37	3.78	2.06	3.56	2.92
All Non- Agricultural	2.99	4.44	2.04	3.65	3.23
Total	2.30	4.44	1.78	3.27	3.10

*Source:* Papola and Sahu (2012) based on various rounds of NSS data on employment and unemployment.

Going further into rural farm and non-farm production and employment, while agriculture's share in output has fallen, that of trade, hotels, etc., has risen the most constituting the second largest share in rural NDP followed by manufacturing, construction and real estate and business services. Manufacturing's share in output has remained more or less constant while the latter two sectors have experienced a growth in output (Table 23). Thus again, manufacturing does not seem to be the engine of growth in rural non-farm sector.

**Table 23: Sectoral Distribution of Rural NDP (per cent)**

Sector	1970-71	1980-81	1993-94	1999-00	2004-05
Agriculture and allied	72.37	64.36	56.99	51.42	38.34
Mining & Quarrying	0.85	1.24	2.60	1.82	3.70
Manufacturing	5.87	9.16	8.15	11.13	11.86
Utilities	0.37	0.56	0.88	1.43	0.66
Construction	3.47	4.05	4.61	5.59	7.91
Trade, hotels & restaurants	2.72	6.68	7.77	8.72	14.98

Table 23 continued...

Table 23 continued...

Transport, storage & communication	1.26	1.32	3.41	4.03	5.81
Banking & Insurance	0.54	0.81	1.73	1.93	1.96
Real estate and business services	6.18	4.55	4.26	4.60	6.46
Community, Social & Personal Services	6.36	7.27	9.58	9.35	8.31
Total rural nonfarm	27.63	35.64	43.01	48.58	61.66
Total	100	100	100	100	100

**Source:** Papola and Sahu (2012) estimate based on National Accounts Statistics, CSO, various years.

However, when we come to shares in total employment over 1993-94 to 2009-10, both agricultural and manufacturing employment shares have fallen, while most others have remained constant except for the case of construction. Overall, the fall in agriculture's share of about 7 per cent in overall employment over 1999-2010 is matched by an almost corresponding rise in construction's share of employment. Further, where rural employment is concerned, the decline in agricultural sector's share in employment by about 8.3 per cent and that of rural manufacturing by 8.83 per cent has again been compensated largely by a 15.3 per cent rise in construction sector's share of employment (Table 21).

**Table 24: Composition of Rural Non-Farm Employment (UPSS)**

Sector	1993-94	1999-00	2004-05	2009-10
Agriculture	78.43	76.23	72.58	67.93
Non-agriculture	21.57	23.77	27.42	32.07
Distribution within non agriculture:	2.58	2.09	1.79	2.01
Mining & Quarrying				
Manufacturing	32.46	31.15	29.47	22.32
Utilities	1.06	0.55	0.47	0.43

Table 24 continued...

Table 24 continued...

Construction	11.02	13.96	17.81	29.32
Secondary Sector	47.12	47.74	49.53	54.08
Trade, Hotelling etc.	19.86	21.59	22.62	20.33
Transport & Communication etc.	6.71	8.66	9.11	9.00
Financing, Insurance, Real estate & business services	1.36	1.52	1.76	1.70
Community, social and personal services	24.96	20.49	16.98	14.89
Tertiary Sector	52.88	52.26	50.47	45.92

**Source:** Papola (2012) estimates based on various rounds of NSS data on employment and unemployment.

This suggests that the fall in the employment across the primary and manufacturing sectors has been largely absorbed by the construction sector. Again, this raises questions about the nature of employment growth in not only construction but also in rural non-farm and even total employment growth in the past decade, as a substantial part of it was located within this sector. This sector is almost entirely unorganised, characterised by low wage, low productivity, low skills and is also notorious for corruption, political nexuses and exploitative working conditions. As ILO (2001) report on future of construction industry in the twenty first century notes (with a detailed case study on India):

*(T)he industry also has a poor image in the eyes of its workforce, or potential workforce, and it is this aspect that is of most concern in this report. The poor image of work in the construction industry is generally thought to stem from the nature of the work, which is often described as “dirty, difficult and dangerous”. But the real reason why construction work is so poorly regarded has much more to do with the terms on which labour is recruited than the nature of the work itself. For many construction workers around the world the terms of employment have always been poor. But many others have seen a significant deterioration in the past 30 years, as the construction industry has led the way in the adoption of “flexible” labour practices.*

Moreover, the growth in this sector is often fuelled by rising real estate speculation and which makes this growth extremely volatile. This requires a detailed exploration of the nature and quality of this apparently large scale migration of labour to the construction sector.

## **Concluding Remarks**

The Indian economy over the last decade seems to have experienced all the classic features marked upon while discussing the crisis of employment in case of large developing countries.<sup>33</sup> Overall employment elasticities have been falling, wage inequalities have been rising, there is a rise in informalisation and casualisation of labour force and there exist a substantial number of working poor.

Again, the quantitative and qualitative dimensions of shifts in employment are similar to the distinctive demographic features and structural transformations typically observed in literature while analysing the growth and development trajectories of several other developing countries in contemporary globalisation.<sup>34</sup>

The decade witnessed not only low growth of employment but also substantial fluctuations midway in its quantitative and qualitative dimensions. The first half of the decade saw a massive rise in self-employment in particular, marking a departure from a declining trend in the same over the past decades and was largely constituted by informal employment which was vulnerable in nature. It was also marked by a rise in employment across sectors (in particular in agricultural and manufacturing), a substantive part of which was constituted by a rise in rural employment and a rise in overall youth and adult female employment .

The second half witnessed a reversal of most of these trends as well as a sectoral shift in employment generation. There was a massive absolute decline in self-employment to the tune of 25 million, largely in rural India and in youth and adult female employment. There was also a sectoral shift in employment with construction emerging as

the only sector which experienced a massive rise in employment, mitigating a massive fall in agricultural and manufacturing employment. The rise in employment was largely casual in nature and was made up by adult male employment.

To the extent that a substantial part of the rise in employment at the beginning of the decade was a departure from the trend and seemingly distress-driven or disguised unemployment, the second half marked a return to the long-run trend.

The analysis at sectoral level reveals that the share of agricultural output in overall GDP has fallen and that of manufacturing and services risen as is expected from the 'agrarian transition', traditionally held to be a prerequisite for a transition to a higher growth and development stage by any developing country. However, as far as employment shares are concerned, the transition is still incomplete as we still have a disproportionately high portion of the labour force in agriculture which contributes to more than 50 per cent of overall employment

Construction was the only sector which witnessed relative employment growth in the unorganised sector. However, it is also characterised by low productivities, very low incomes for the mass of workers and is notorious for corruption, political nexuses and exploitative working conditions.

Thus, employment growth rates and elasticities in the growing sectors of the economy (with the exception of construction) have been experiencing a fall in the long-run, thereby retarding the process of absorbing the unemployed and underemployed labour force into more productive and dynamic employment opportunities.

It is sometimes argued that informalisation in case of the Indian economy has risen due to restrictivity of labour laws forcing employers to resort to this route for recruiting workers. It is further posited that in the absence of flexibility of labour laws, informalisation is an

inevitable trade off towards a higher growth process. The clearly rising gap between the formal and informal sector labour productivities and the fall in these productivities within the unorganised sector itself over time, brought out here, challenges the legitimacy of this argument besides suggesting widening income inequalities. For if this informalisation was an inevitable part of a rising growth trajectory, then labour productivities within the informal sector should have risen not fallen in response to higher growth. Falling labour productivities within the unorganised sector thus lend credence to claims of rising underemployment and disguised unemployment.

Furthermore, the demographic shifts in employment suggest a large withdrawal in youth employment and a parallel rise in youth enrolment in higher education. This suggests that the employment challenge will become more serious in the coming decade given a long-run trend of low employment elasticities, informalisation and casualisation, and the imminent rise in demand for skilled employment by those who have withdrawn for higher education as they rejoin the labour force. At the very least, this requires a detailed investigation into the structural growth trajectory we have embarked upon to understand what forces are shaping this phenomenon to meet the employment challenge facing the country effectively.

**Table A1: Workforce Estimates for 1999-2000, 2004-05  
and 2009-10 in million**

	Principal status	Principal status	Subsidiary status	Subsidiary status
Age Group	0 to 24	25+	0 to 24	25+
<b>1999-2000</b>				
Rural male	46	150	48	152
Rural female	20	62	26	80
Urban male	15	60	15	61
Urban female	3	12	4	14
<b>2004-05</b>				
Rural male	48	16772	51	168
Rural female	19	72	28	96
Urban male	18	71	18	72
Urban female	4	16	5	19
<b>2009-10</b>				
Rural male	41	186	45	187
Rural female	14	67	19	86
Urban male	16	83	16	84
Urban female	3	16	4	19

*Source:* NSS 66th Round, 2009-10.

## Endnotes

- <sup>1</sup> 'Global Employment Trends 2013: Recovering from a second Jobs dip', ILO.
- <sup>2</sup> This phenomenon has been widely documented in case of several developing countries in Asia and elsewhere such as China, Indonesia, Malaysia, Philippines, Brazil, Argentina, India in several ADB and World Bank reports. For instance, World Development Report 2005 and ADB (2004, 2006).
- <sup>3</sup> See ILO (2011, 2012, 2013). Again this phenomenon has also been observed with growth in almost all the countries mentioned in the endnote above.
- <sup>4</sup> See Stearns (1998).
- <sup>5</sup> For instance see the report on 'The Challenge of Employment in India : An Informal Economy Perspective' by the National Commission for Enterprises in Unorganised Sector, April 2009.
- <sup>6</sup> So called after the analysis on the agrarian transition by Arthur Lewis in his seminal paper 'Development with Unlimited Supplies of Labor' (1954).
- <sup>7</sup> Disguised unemployment occurs when people do not have productive full-time employment, but are not counted in the official unemployment statistics. It exists frequently in developing countries whose large populations create a surplus in the labour force. Where more people are working than is necessary, the overall productivity of each individual drops. Disguised unemployment is characterised by low productivity and frequently accompanies informal labour markets and agricultural labour markets, which can absorb substantial quantities of labour.
- <sup>8</sup> These issues *vis-a-vis* the phenomenon of informalisation have been documented by various ILO reports beginning 1972 which have mapped the changing contours of this debate. For a brief historical survey see 'Changing Employment Patterns and the Informalisation of Jobs: General Trends and Gender Dimensions' by Lourdes Beneria, August 2001 and 'Rethinking Informalisation: Poverty, Precarious Jobs and Social Protection' Cornell University Open Access Repository, May 2005. The Global Employment Trends 2011, 2012 and 2013 brought out by ILO map some of the recent discussion on these issues given the backdrop of global economic crises.
- <sup>9</sup> The fallacy of composition – sometimes also called “adding-up problem” – means that what is viable for one small exporter acting in isolation may not be viable for a group of exporters acting at the same time: if all, in particular large, developing countries try to substantially increase exports of labour intensive manufactures, there will be a risk that they encounter rising protective resistance from developed countries and/or that the terms of trade decline to such an extent that the benefits of any increased volume of exports are more than offset by losses due to lower export prices.
- <sup>10</sup> See Fallon and Lucas (1993), Besley and Burgess (2004), Lall and Mengistae (2005), Ahmad, Pages and Roy (2008) for studies based on empirical modelling and case studies around these premises. Also see Bhaatacharjea (2006) and Anant *et al.* (2006) for a critical evaluation of labour laws affecting the formal sector from this perspective.



- <sup>11</sup> See The National Commission for Enterprises in the Unorganised Sector's report on 'The Challenge of Employment in India : An Informal Economy Perspective', April, 2009 for a detailed set of arguments.
- <sup>12</sup> NSS surveys capture an individual's participation in labour force using two criteria, usual principal activity status (UPS) and the usual principal and subsidiary status (UPSS). The former reflects the status of an individual over a reference period of one year. A person is classified as belonging to labour force, if s/he had been either working or looking for work during longer part of the 365 days preceding the survey. UPSS, on the other hand, was introduced to widen the UPS concept to include even those who were outside the labour force based on the majority time criterion but had been employed during some part of the year on a usual basis. We use the more inclusive criterion, viz. UPSS, to assess the state of employment in the country.
- <sup>13</sup> See Papola (2012).
- <sup>14</sup> Workforce Participation Rate (WFPR) gives the employment to population ratio.
- <sup>15</sup> Labour Force Participation Rate (LFPR) indicates the proportion of the available "working age" population that is willing and able to work and is either employed or actively seeking employment. It is calculated by dividing the labour force by the population .
- <sup>16</sup> The ratio of male to female employment is approximately 2:1 in rural India and 4:1 in urban India and has been declining *vis-a-vis* female employment. The ratio of rural to urban employment overall is about 3:1 and has been increasing slightly *vis-a-vis* urban employment.
- <sup>17</sup> *ibid*, 9.
- <sup>18</sup> Current Weekly Status (CWS) of a person is the activity status obtained for a person during a reference period of 7 days preceding the date of survey. According to this, a person is considered as a worker if he/she has performed any economic activity at least for one hour on any day of the reference week, and is obtained on the basis of daily activities performed on each day of the reference period.
- <sup>19</sup> Current Daily Status (CDS) of a person is determined on the basis of his/her activity status on each day of the reference week using a priority-cum-major time criterion (day to day labour time disposition). Broadly, a person is considered working (employed) for the full day if s/he worked for 4 hours or more during the day.
- <sup>20</sup> See Appendix, Table A1.
- <sup>21</sup> The share of self-employment in total employment is about one half and has been falling but at a slow rate, share of regular employment is about one sixth and rising minimally, while share of casual employment is about one third and is rising to mitigate most of the fall in self-employment. Urban self-employment and regular employment constitute 2/5ths of the total employment each with fall in urban self-employment being largely accompanied by rise in regular and casual employment. About 3/5ths of rural employment is self-employment, 1/3 is casual employment and less than 1/10 employment is regular in nature. Overtime the fall in self-employment here has been largely accompanied by a rise in casual employment mostly.

- <sup>22</sup> See for instance Chandrasekhar and Ghosh (2006, 2011), and Papola and Sahu (2012).
- <sup>23</sup> Papola and Sahu (2012).
- <sup>24</sup> *ibid.*
- <sup>25</sup> See Chandrasekhar and Ghosh (2011) and Papola and Sahu (2012).
- <sup>26</sup> Planning Commission data based estimates. Also see World Bank report on ‘India’s Employment Challenge: Creating Jobs, Helping Workers’ (2010).
- <sup>27</sup> Except for largely public sector based employment under the headings of public administration, defence and ‘community and social services’ in keeping with the trend of state withdrawal from economic activities.
- <sup>28</sup> World Bank (2010) *op.cit.*
- <sup>29</sup> Bhagwati and Panagariya (2012) and Ahsan, Pages and Roy (2006) .
- <sup>30</sup> See for instance NCEUS (2009).
- <sup>31</sup> See background paper on the role of labour regulation.
- <sup>32</sup> See Aditya Bhattacharya (2009) for a comprehensive and critical survey.
- <sup>33</sup> See the discussion in section 2.
- <sup>34</sup> *ibid.*

## References

- Ahsan, Ahmad and Carmen Pagés. 2007. “Are All Labor Regulations Equal? Assessing the Effects of Job Security, Labor Dispute, and Contract Labor Laws in India”. World Bank Policy Research Working Paper 4259, June. World Bank.
- Ahsan, Ahmad, Carmen Pagés and Tirthankar Roy. 2008. “Legislation, Enforcement and Adjudication in Indian Labor Markets: Origins, Consequences and The Way Forward” in Dipak Mazumdar and Sandip Sarkar (eds) *Globalization, Labor Markets and Inequality in India*. Oxon: Routledge.
- Anant, T.C.A. 2000. “Reforming the Labour Market” in S. Gangopadhyay and W. Wadhwa (eds.) *Economic Reforms for the Poor*. New Delhi: Konark.
- Anant, T.C.A., Rana Hasan, Prabhu Mohapatra, R. Nagaraj, and S.K. Sasikumar. 2006. “Labor Markets in India: Issues and Perspectives.” in Jesus Felipe and Rana Hasan (eds) *Labor Markets in Asia: Issues and Perspectives*. London: Palgrave Macmillan for the Asian Development Bank. Pp. 205-300.
- ADB. 2004. *Asian Development Outlook 2004: Foreign Direct Investment in Developing Asia*. Asian Development Bank (ADB), Manila.
- ADB. 2006. *Asian Development Outlook 2006: Routes for Asia’s Trades*. Asian Development Bank (ADB), Manila.
- Bhagwati, J. and Arvind Panagariya (eds). 2012. *Reforms and Economic Transformation in India*. USA: Oxford University Press.

- Besley, Timothy and Robin Burgess. 2004. "Can Labor Regulation Hinder Economic Performance? Evidence from India." *The Quarterly Journal of Economics*, Vol. 119(1): 91-134, February.
- Bhattacharjea, Aditya. 2006. "Labour Market Regulation and Industrial Performance in India: A Critical Review of the Empirical Evidence." *Indian Journal of Labour Economics*, 49 (2), 211–232.
- Chandrasekhar, C. P. and J. Ghosh. 2011: "Latest Employment Trends from the NSSO." *Business Line*, 12 July.
- Chandrasekhar, C. P. and J. Ghosh. 2006. "Employment Growth: The Latest Trends." *Macroscan*, 17th November. Available at: [http://www.macroscan.org/fet/nov06/fet171106Employment\\_Growth.htm](http://www.macroscan.org/fet/nov06/fet171106Employment_Growth.htm)
- Chaudhary, Shubhanil. 2011. "Employment in India: What Does the Latest Data Show?" *Economic and Political Weekly*, Vol. 46., No. 32, pp. 23–26.
- Dutta Roy, Sudipta. 2004. "Employment Dynamics in Indian Industry: Adjustment Lags and The Impact of Job Security Regulations." *Journal of Development Economics*, 73 (1): 233–256.
- Fallon, Peter R. and Robert E. B. Lucas. 1993. "Job Security Regulations and the Dynamic Demand for Industrial Labor in India and Zimbabwe." *Journal of Development Economics*, Vol. 40 (2): 241-275, April.
- ILO. 2013. *Global Employment Trends 2013: Recovering from a Second Jobs Dip*. International Labour Organisation, Geneva.
- ILO. 2012. *Global Employment Trends 2012: Preventing a Deeper Jobs Crisis*. International Labour Organisation, Geneva
- ILO. 2011. *Global Employment Trends 2011: The Challenge of a Jobs Recovery*. International Labour Organisation, Geneva.
- ILO, various years. *Key Indicators of Labour Market (7<sup>th</sup> Edition)*. International Labour Organisation, Geneva.
- Karan, Anup K. and Sakthivel Selvaraj. 2008. "Trends in Wages and Earning in India: Increasing Wage Differentials in a Segmented Labour Market." ILO Asia-Pacific Working Paper Series, International Labour Organisation, Geneva.
- Kannan, K.P. and G. Raveendran. 2009. "Growth Sans Employment: A Quarter Century of Jobless Growth in India's Organised Manufacturing." *Economic and Political Weekly*, 7 March.
- Lall, S. and T. Mengistae. 2005. "The Impact of Business Environment and Economic Geography on Plant Level Productivity: An Analysis of Indian Industry." *World Bank Working Paper WPS 3664*, World Bank, Washington, DC.
- Lewis, W.A. 1954. "Economic Development with Unlimited Supplies of Labour." *Manchester School of Economic and Social Studies* (May).

- Lourdes, Beneria. 2001. *Changing Employment Patterns and the Informalization of Jobs: General Trends and Gender Dimensions*. International Labour Organisation, Geneva.
- NCEUS. 2009. *The Challenge of Employment in India : An Informal Economy Perspective*. The National Commission for Enterprises in Unorganised Sector (NCEUS), New Delhi.
- Papola, T.S. 2008. "Industry and Employment: Dissecting Recent Indian Experience" in S.R. Hashim, K. S. Chalapati Rao, K.V.R. Ranganathan, M.R. Murthy (eds) *Indian Industrial Development and Globalisation*. New Delhi: Academic Foundation in association with Institute for Studies in Industrial Development (ISID).
- Papola, T.S. 2010. "Livelihoods in Agriculture: Status, Policies and Prospects" in Sankar Datta and Vipin Sharma (eds) *State of India's Livelihoods Report, The 4P Report*. New Delhi: Sage.
- Papola, T.S. and Partha Pratim Sahu. 2008. "Mainstreaming Employment in Macro-economic and Sectoral Development: A Framework for Analysis and Policy." New Delhi: International Labour Organization, April.
- Papola, T.S. and Partha Pratim Sahu. 2012. *Growth and Structure of Employment in India: Long-Term and Post-Reform Performance and the Emerging Challenge*. Institute for Studies in Industrial Development (ISID), New Delhi.
- Papola, T.S., Jesim Pais and Partha Pratim Sahu. 2008. *Labour Regulation in Indian Industry: Towards a Rational and Equitable Framework*. New Delhi: ISID and Bookwell.
- Planning Commission. 2012-2017. Report of 'The Working Group On Employment, Planning & Policy For The Twelfth Five Year Plan.' Labour, Employment and Manpower Division, Planning Commission, Government of India, December.
- Planning Commission. 2012. *Databook for DCH*. Planning Commission, Government of India.
- Kudva, Neema and Lourdes Beneria. 2005. "Rethinking Informalisation : Poverty, Precarious Jobs and Social Protection." Cornell University Open Access Repository, May.
- Stearns, Peter N. 1998. *The Industrial Revolution in World History* (2<sup>nd</sup> edition). Boulder: Westview Press.
- World Bank. 2005. *World Development Report: A Better Investment Climate for Everyone*. World Bank, Washington, DC.
- World Bank. 2010. Report on 'India's Employment Challenge: Creating Jobs, Helping Workers.' India: Oxford University Press.
- World Bank. 2013. *World Development Report: Jobs*. World Bank, Washington, DC.



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