

# **Trends and Structure of Employment and Productivity in Unorganized Manufacturing Sector of India in Post-reform Period**

**Author: Anupama Uppal  
Discussant: Deb Kusum Das**

# Summary

- **Introduction**
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# Introduction

Labour-intensive industrialization is seen as the only sustainable means to absorb large numbers of unskilled workers from agriculture in India.

Manufacturing segment represent only about 13 per cent of total employment.

Considerable variations across different sub-sectors and organised and unorganised segments.

The organised segment contributes about 71 per cent of the total manufacturing output, the unorganised segment provides 66 per cent of total manufacturing employment in the country (2011-12)

# Data and Methods

National Income Statistics: Central Statistical Organisation

National Sample Survey Organisation: Employment and Unemployment Situation in India and Unorganised Manufacturing Sector of India (several rounds)

Division of Enterprises: by enterprise size (own account enterprises and establishments); by sector of production (traditional and modern)

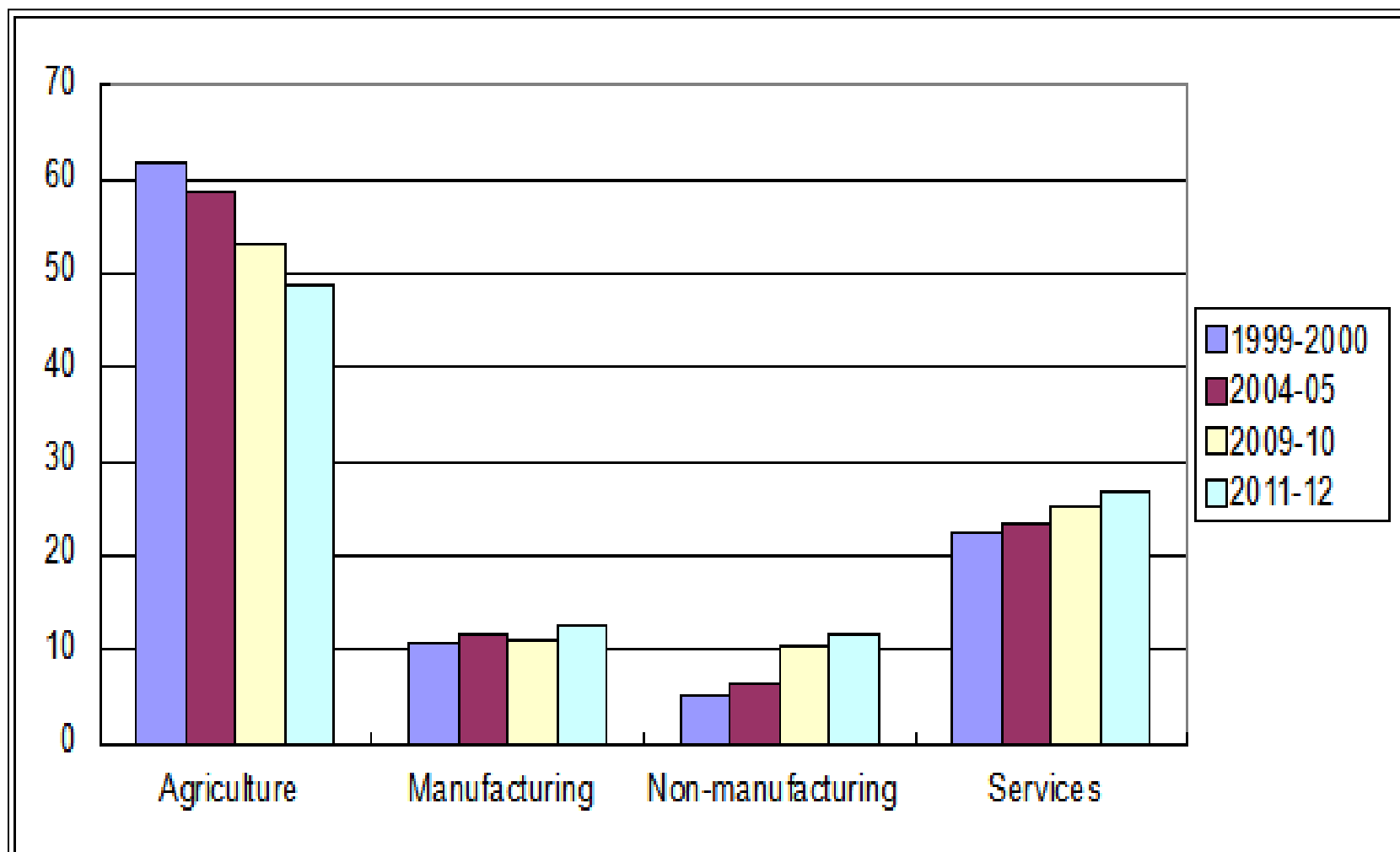
Relative Efficiency of Labour and Capital

Labour Efficiency Index



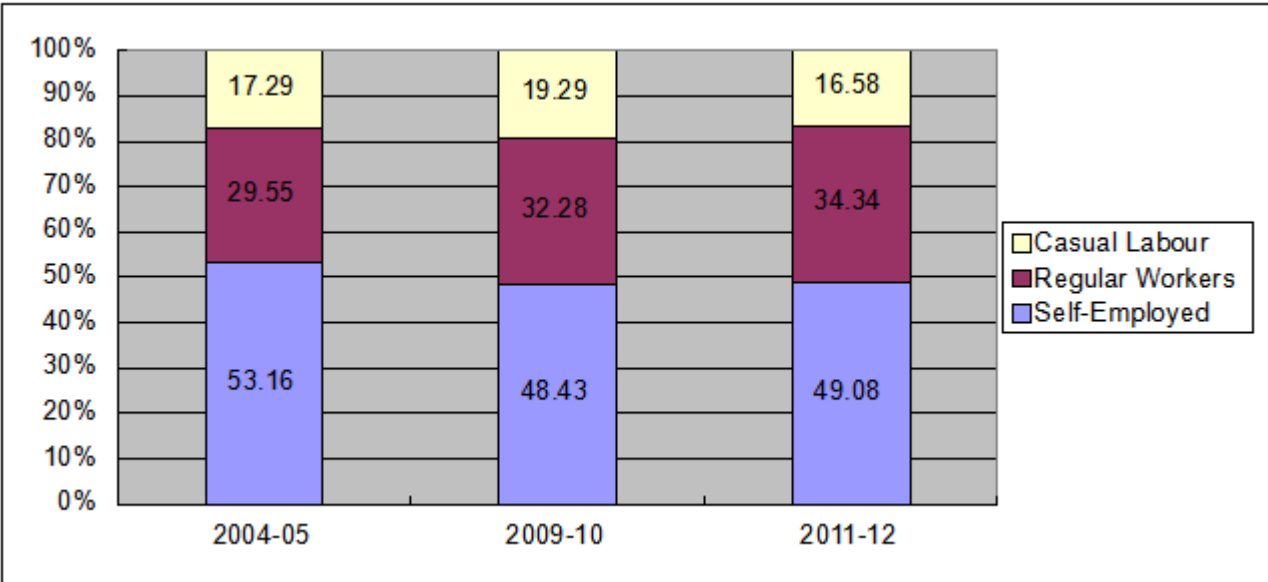
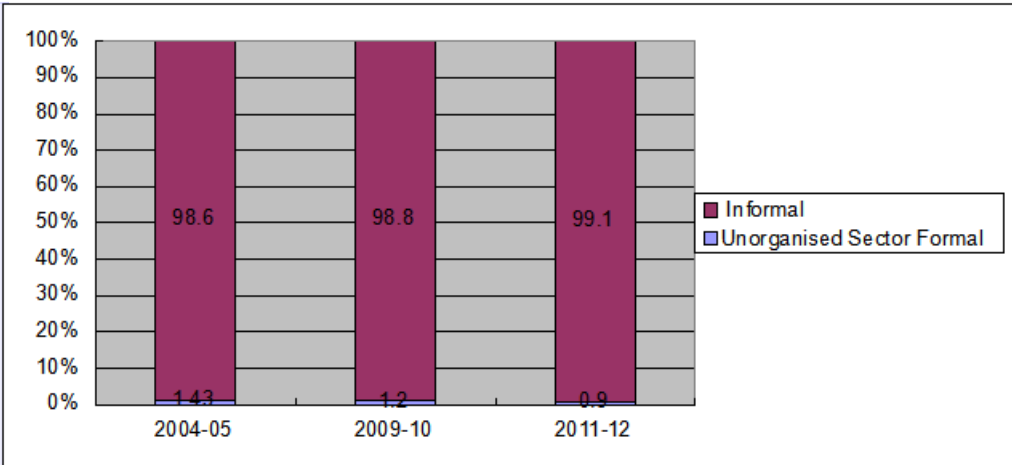
# Sector-wise Distribution of Work-force in India (usual status)

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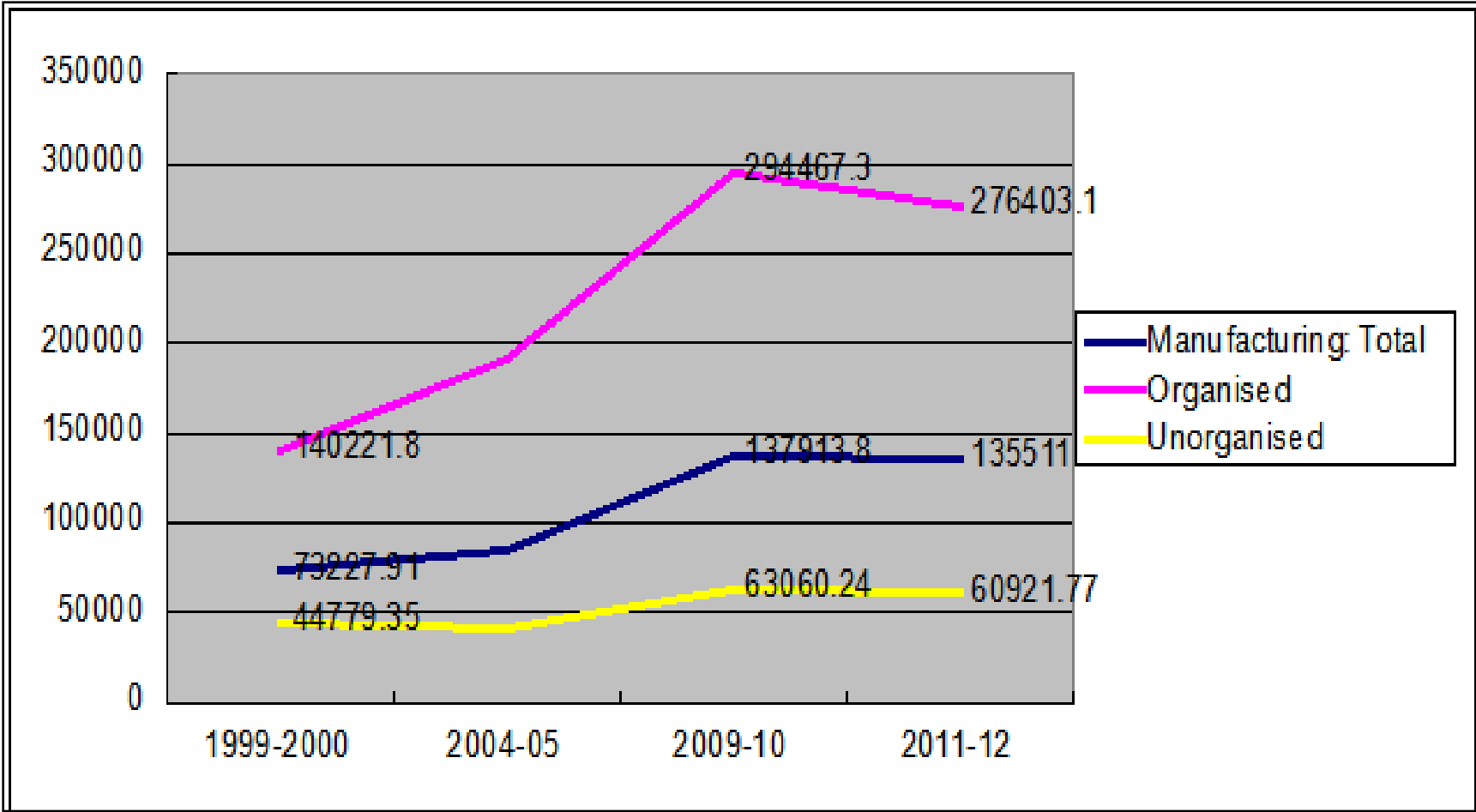


Source: NSSO (various rounds).

# Distribution of Workers in Manufacturing Sector of India by Type and Nature of Employment



# Per Worker Real Output (2004-05 prices)<sup>7</sup>



Absolute Increase and Decrease in Number of Enterprises in  
Unorganised Manufacturing Sector of India.

	OAMEs	NDMEs	DMEs	All
Rural				
1994-95 to 2000-01	1523313	-38424	-47384	1437505
2000-01 to 2005-06	50472	115788	27423	193683
2005-06 to 2011-12	-1970492	-42692		-2013184
Urban				
1994-95 to 2000-01	892344	150211	39938	1082493
2000-01 to 2005-06	-102986	-57176	13196	-146966
2005-06 to 2011-12	1787575	365058		2152634
Total				
1994-95 to 2000-01	2415658	111787	-7446	2519999
2000-01 to 2005-06	-52514	58612	40619	46716
2005-06 to 2011-12	-18297	322366		139450

Absolute Increase and Decrease in Persons Employed in  
Unorganised Manufacturing Sector of India.

	OAMEs	NDMEs	DMEs	All
Rural				
1994-95 to 2000-01	1302522	104045	453240	1859707
2000-01 to 2005-06	-1125892	451077	147300	-527414
2005-06 to 2011-12	-4808744	-139190		-4947934
Urban				
1994-95 to 2000-01	1096820	571732	349796	2018448
2000-01 to 2005-06	-248114	-233266	370893	-110586
2005-06 to 2011-12	1965602	1427968		3393570
Total				
1994-95 to 2000-01	2399242	675777	803036	3878155
2000-01 to 2005-06	-1373906	217812	518194	-638001
2005-06 to 2011-12	-2843142	1288778		-1554364

# Share of Rural Enterprises in Total Enterprises, Employment and Gross Value Added in Unorganised Manufacturing Sector of India

Period	OAMEs	NDMEs	DMEs	All
Share in Enterprises				
1994-95	77.84	41.75	44.96	72.37
2000-01	75.40	36.78	38.15	70.10
2005-06	76.02	42.10	39.89	71.05
2011-12	63.33	35.14		58.77
Share in Employment				
1994-95	78.74	37.43	43.37	66.64
2000-01	76.40	34.75	45.0	64.69
2005-06	76.08	41.25	43.76	64.37
2011-12	63.39	37.72		53.06
Share in Gross Value Added				
1994-95	61.30	25.51	26.23	41.03
2000-01	66.08	24.52	31.31	44.31
2005-06	67.09	30.37	33.30	43.42
2011-12	51.74	27.82		36.57

## **Absolute Job Gains/Losses in Traditional and Modern Sectors of Unorganised Manufacturing Sector India**

During the period 1994-95 to 2000-01, employment increased in both the traditional and modern sub-sectors of the unorganised manufacturing sector

During the period 2000-01 to 2005-06, it declined in both categories

During 2005-06 to 2011-12, the employment increased in the modern sector but declined in the traditional sector

The overall decline in number of persons employed in the unorganised manufacturing sector of India during this phase has been due to decline in rural, own account and traditional units while the urban, modern and relatively bigger sized units i.e. the establishments created new employment opportunities during this period

# Productivity in the Traditional and Modern Sectors of Production

The productivity of the traditional enterprises is lower than the modern ones (except in case of rural OAMEs)

The productivity in each type of enterprise and activity has been increasing since 1994-95: It has increased in modern enterprises at a greater rate than the traditional ones

The relative productivity of the traditional enterprises (vis-a-vis modern enterprises) in rural areas has declined from about 78 per cent to only 38 per cent as compared to 67 per cent to 34 per cent in urban areas

Interestingly, the relative productivity of traditional OAMEs in rural areas is higher than their urban counterparts

During the year 2011-12, the relative productivity of traditional sector as a whole has increased as compared to the year 2005-06 but this increase is due to the improvement in urban enterprises - both own account enterprises as well as establishments.



# Relative Labour and Capital Productivity (represented as ratio of traditional sector to modern sector)

Year	Relative Labour Productivity				Relative Capital Productivity			
	OAME	NDME	DME	all	OAME	NDME	DME	all
	Rural							
1994-95	1.03	0.99	0.92	0.99	0.07	0.07	0.14	0.09
2000-01	0.86	0.72	0.68	0.63	0.91	0.78	0.79	0.87
2005-06	0.75	0.67	0.76	0.53	0.77	0.77	0.83	0.75
2011-12	0.75	0.88		0.62	0.76	0.73		0.77
	Urban							
1994-95	0.93	0.97	0.93	0.92	0.23	0.26	0.47	0.33
2000-01	0.73	0.84	0.81	0.69	1.00	1.26	1.12	1.14
2005-06	0.63	0.72	0.51	0.47	1.11	1.04	0.69	0.83
2011-12	0.65	0.80		0.66	0.96	0.94		0.90
	All India							
1994-95	0.99	0.96	0.91	0.93	0.13	0.19	0.36	0.22
2000-01	0.75	0.74	0.79	0.58	0.99	1.18	1.01	1.08
2005-06	0.67	0.67	0.60	0.43	0.98	0.97	0.78	0.84
2011-12	0.69	0.84		0.60	0.92	0.88		0.86

# Labour Efficiency Index

The labour efficiency index is actually measured as the difference between the actual growth of labour productivity  $(Q/L)^a$  and the standard or the desired growth of labour productivity  $(Q/L)^d$  (Ahmed, 1981)

$$LEI = (Q/L)^a - (Q/L)^d$$

$$(Q/L)^d = \text{growth of } (K/L) + \text{growth of } (Q/K)$$

LEI close to zero indicates that the labour is as efficient as it should be; a value greater than zero shows that the labour is more productive than the expected rate while a value less than zero shows inefficiency in the use of labour inputs given the capital-labour ratio and the capital productivity in the production unit.

# The Index of Labour Efficiency in Unorganised Manufacturing Sector of India

During the period 1994-95 to 2000-01, labour productivity in the traditional sector was growing at a little higher rate than the desired one while the performance of the modern sector was far from being efficient

During the period 2000-01 to 2005-06, though the labour productivity in the traditional sector grew at a little lower rate than the desired one, the labour in the modern sector improved its efficiency considerably and it grew at a rate higher than the desired one resulting in to a positive value of labour efficiency index.

During the period 2005-06 to 2011-12, we can see inefficiency in every type of enterprise in modern as well as traditional manufacturing but it is severer in traditional sector than the modern ones

Within the traditional sector, the inefficiency is the highest for the establishments and the lowest for OAMEs while in the modern sector, it is highest for the OAMEs and lowest for the establishments.

# The Determinants of Labour Productivity and Relative Efficiency in Unorganised Manufacturing Sector of India

Year	Constant	Capital labour Ratio	Size Dummy for OAMEs	Size Dummy for NDMEs	R <sup>2</sup>
1994-95	2.794***	0.326***	-0.312*** (0.732)	-0.0784* (0.925)	0.710
2000-01	2.55***	0.420***	-0.273*** (0.761)	-0.113** (0.893)	0.653
2005-06	2.497***	0.466***	-0.351*** (0.704)	-0.186*** (0.830)	0.776
2011-12	2.501***	0.468***	-0.461*** (0.631)		0.761

\*\*\* 1 per cent level of significance

\*\* 5 per cent level of significance

\* 10 per cent level of significance

Figures in bracket show the relative efficiency of the OAMEs and NDMEs with respect to DMEs while during the year 2011-12, it shows the relative efficiency of OAMEs with respect to establishments.

# Conclusions

The unorganised manufacturing sector in India is dominated by low productive small scale rural enterprises which belong to the traditional manufacturing sector and their contribution to employment is immense

This raises the doubts upon the reliance of the future growth strategy on rural manufacturing

The internal dynamics of the unorganised manufacturing sector show that the modern segment of the unorganised manufacturing sector is showing the signs of improvement in terms of employment as well as productivity

Need of development of the modern sector

Need of policy attention towards the provision of credit facilities to each type of enterprise in the unorganised manufacturing sector

Tiny rural traditional units should also be promoted as we have seen that the inefficiency of labour is the least in own account enterprises within the traditional sector

# Some comments

# Comments

1. The research issues have to be placed in the context of India's current economic health. The paper lacks a hypothesis to examine and seems centred around understanding trends in employment and productivity without making explicit as to why it is important to study these aspects.
2. There are two important recent contributions to the study of unorganized sector in India- Rajesh Raj and Kunal Sen (2016) and B N Goldar (2016). The present paper needs to position itself against these two studies.
3. In order to better evaluate the performance of unorganized manufacturing some industry level analysis should have been attempted..

# Comments

- In order to understand labour efficiency, an attempt is made to provide a quantitative evaluation.
- This is done for types of enterprises in unorganized manufacturing –some effort should have been made to define and explain such enterprises
- The econometric specification to understand the determinants of labour productivity seems weak. The study should attempt to have some policy outcome variables to allow for representation of the macroeconomic environment in which these enterprises work.
- An industry appraisal could be tried as an alternative to the enterprise type based
- The paper seems baked for a HOME audience and needs some comparative flavour to make it interesting for an international audience