

# The Demographic Challenge and Employment Growth in India

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The working-age population of India is growing in size, the labour force is shifting away from agriculture and, with higher education, workers are also seeking better-quality non-agricultural jobs. However, the trends between 2004-05 and 2011-12 indicate that employment generation in the country has been inadequate to meet this challenge. Construction has virtually become the only source of incremental employment in rural India. In the urban areas, men have been able to obtain a disproportionate share of high-productivity employment.

The recent survey on employment and unemployment in India, conducted by the National Sample Survey Office (NSSO), has attracted considerable media attention. This was mainly due to the wide fluctuations in overall employment growth as shown by these surveys. Overall employment in the country rose markedly by 59.4 million between 1999-2000 and 2004-05. But during the next five years, 2004-05 to 2009-10, net employment generated fell sharply to only 4.7 million, leading to the suggestion that this was a period of “jobless growth”. Employment growth recovered subsequently, with 10 million new jobs registered between the surveys held in 2009-10 and 2011-12. (All estimates in this article, unless otherwise specified, are based on the usual principal and the usual subsidiary status (UPSS) of worker.) (see Table 1).

However, an exclusive focus on the growth of overall employment – which is the sum of employment in agriculture and the non-agricultural sectors – can be misleading for a developing country like India. With economic development, employment in agriculture is expected to decline, both in relative terms as well as in absolute numbers.

However, agricultural employment in India increased by 17.4 million between 1999-2000 and 2004-05, and some studies have attributed this increase to rural

distress, that is people were driven to find work to supplement household incomes during a difficult period (Table 1). On the other hand, between 2004-05 and 2009-10, agricultural employment declined absolutely by 20.4 million, leading also to the deceleration in overall employment growth. This decline in agricultural employment was, at least partly, a reversal from the “distress employment” created during the previous five-year period (Thomas 2012). Agricultural employment declined further by 12.9 million between 2009-10 and 2011-12 (Table 1).

The creation of non-agricultural employment in India was at the rate of 8.4 million a year between 1999-2000 and 2004-05, which slowed down to five million a year between 2004-05 and 2009-10, but rose again to 11.5 million a year between 2009-10 and 2011-12. Notably, the rate of generation of non-agricultural employment in the country improved from 5.9 million a year between 1993-94 and 2004-05 to 6.9 million a year between 2004-05 and 2011-12 (Table 1). Therefore the suggestion, based on trends in overall employment, that India’s employment growth decelerated after the mid-2000s is without basis.

However, a more pertinent question is whether the pace and nature of employment generation in India is adequate given the challenges on the labour supply front. This question is addressed in the rest of the article.

## Demographic Transition

Estimates by the World Bank show that the population aged 15 to 59 years is set to increase dramatically in India from around 757 million in 2010 to 972 million in 2030. This could potentially translate

**Table 1: Net Increase in the Number of Workers in India, 1983 to 2011-12** (numbers in million)

Period	Net Increase			Net Annual Increase	
	All Workers	Agricultural Workers	Non-Agricultural Workers	All Workers	Non-Agricultural Workers
1983 to 1993-94	71.1	32.4	38.7	6.8	3.7
1993-94 to 2004-05	83.4	18.2	65.2	7.9	5.9
2004-05 to 2011-12	14.7	-33.3	48	1.4	6.9
1993-94 to 1999-2000	24	0.8	23.2	4.0	3.9
1999-2000 to 2004-05	59.4	17.4	41.9	11.9	8.4
2004-05 to 2009-10	4.7	-20.4	25.1	0.9	5.0
2009-10 to 2011-12	10	-12.9	22.9	5.0	11.5

Refers to the usual principal and usual subsidiary status (UPSS) workers. Size of the workforce (in any year) is obtained by multiplying workforce participation rate (WPR) from the NSSO reports with the population figures from the Census of India. There are some differences between the estimates of workers reported in this article and those in Thomas (2012). This is because the population figures for 2004-05 and 2009-10 used in Thomas (2012) were projections based on the Census of India data until 2001. In this article, these population figures have been revised using data from the Census of India 2011. Source: Estimates based on the Survey on Employment and Unemployment, NSSO, 38th, 50th, 55th, 61st, 66th and 68th rounds.

The author is grateful to Seema for useful suggestions and assistance in research.

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into an addition of over 200 million workers over the next two decades. On the other hand, during the same period, the working-age population is expected to decline in most developed regions of the world and even in China (where it would fall from 913 million to 847 million). In other words, India will contribute a substantial chunk of the increase in the global labour supply over the coming years.

### Shift Away from Agriculture

In India, the share of agriculture and allied activities in gross domestic product (GDP) declined from 35.1% in 1983 to 14% in 2011-12. The share of these sectors in the country's total employment also fell during this period, from 68.2% to 47.5%.

An absolute fall in the size of the agricultural workforce was witnessed for the first time in India in the NSSO survey held in 2009-10. But then this decline was observed only in the case of females. It was in the NSSO survey in 2011-12 that the size of the male agricultural workforce registered an absolute decline for the first time in the country (Table 1).

Of course, there have been strong factors that may have pushed workers out of low-productivity agriculture, which in recent years has become non-remunerative in many parts of the country. At the same time, there have been "pull" factors too that caused workers to move away from agriculture. Important among the latter is the expansion of casual employment in public works, which (as per the current weekly status) rose from only 0.9 million in 2004-05 to 6.6 million in 2009-10 and 6.7 million in 2011-12. These included

employment created through the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which accounted for 2.4 million in 2009-10 and 2.9 million in 2011-12. Notably, casual employment in public works accounted for 69% (3.7 million out of 5.4 million, as per the UPSS) of the incremental non-agricultural employment generated for rural females during the 2004-05 to 2011-12 period.

Further, between 2004-05 and 2011-12, 20.5 million new jobs were generated in rural areas in the construction sector (Table 2). Almost 50% of this job creation occurred in the less-developed and chiefly agrarian states of Uttar Pradesh, Rajasthan, Bihar and Madhya Pradesh.

The shift of the workforce away from agriculture in India has occurred almost entirely among the younger age groups. Between 2004-05 and 2011-12, male agricultural workers in the age group of 5-24 years declined by 10.3 million, even as male agricultural workers who are 25 years and older increased by 5.6 million. A part of the reason for this shift is the rising enrolment of the young in educational institutions.

There has been a remarkable improvement in the ratio of students to population (SPR) among persons aged 15 to 19 years in India after the mid-2000s, pointing to an expansion of higher education in the country. SPR among rural males and females in this age group increased by 20 percentage points between 2004-05 and 2011-12, and reached the levels of 64% and 54%, respectively, by 2011-12.

Between 2004-05 and 2011-12, as India's total population (aged 15 to 59 years) increased by 113 million, the population of students among them increased by 41.5 million – that is, 37% of the incremental population. The proportion of students to the incremental population was considerably higher at 45% in rural areas (Table 3). As noted earlier, large numbers of the young in rural areas left agriculture to join educational institutions.

The growth in the population of students who are 15 years and above reduces labour supply for now, but raises the numbers of educated persons who would be demanding high quality jobs in the future.

**Table 3: Population in the 15-59 Age Group India by Activity Status – Estimates for 2011-12 and the Incremental Change between 2004-05 and 2011-12** (Numbers in millions)

	2011-12				Net Increase, 2004-05 to 2011-12			
	RM	RF	UM	UF	RM	RF	UM	UF
Employed in agriculture	120.9	69.6	5.2	2.7	-5.7	-24.6	0.4	-1.5
Employed in non-agriculture	89.9	23.5	97.9	23.2	21.1	4.6	16.3	3.8
Employed, total	210.9	93.1	103.1	25.8	15.5	-19.9	16.7	2.3
Unemployed	4.0	1.7	3.3	1.5	0.6	-0.5	-0.2	-0.4
Labour force	214.9	94.8	106.4	27.3	16.1	-20.5	16.5	1.9
Students	37.1	24.1	21.9	16.9	16.4	11.9	7.1	6.1
Attending domestic duties	1.0	128.2	0.3	76.8	0.2	39.3	0	17.6
Population	257.3	250.4	131.5	123.0	32.9	30.7	23.7	26.0

See notes under Tables 1 and 2.

Source: Same as Table 2.

**Table 2: Employment in India by Sectors: Estimates for 2011-12 and the Net Increase between 2004-05 and 2011-12** (numbers in millions)

Sectors	2011-12					Net Change – 2004-05 to 2011-12				
	RM	RF	UM	UF	All	RM	RF	UM	UF	All
(1) Agriculture and allied activities	139.1	76.2	6.2	3.0	224.4	-5.6	-26.7	0.6	-1.6	-33.3
(2) Manufacturing	19.1	10.0	24.4	7.9	61.3	1.9	-0.4	2.9	0.7	5.1
(2a) Textiles, garments, leather	4.3	3.7	8.5	4.3	20.9	-0.2	0.3	1.1	0.5	1.6
(3) Construction	30.5	6.7	11.6	1.1	49.9	15.7	4.8	3.2	0.1	23.9
(4) Trade, repair, hotels	20.1	3.0	29.9	3.6	56.6	2.3	0	4.3	0.4	7.0
(5) Transport, communication	9.8	0.1	11.1	0.3	21.3	1.5	-0.1	1.2	0	2.6
(6) Financing, insurance, real estate, business services	2.4	0.2	9.1	1.6	13.5	0.9	0.3	3.7	0.9	5.8
(6a) Computer and related	0.1	0.0	2.0	0.4	2.6	0.1	0.0	1.2	0.3	1.7
(7) Community, social and personal services	11.4	5.0	14.4	9.6	40.4	0.1	0.4	1.4	1.5	3.4
(7a) Public administration and defence	2.4	0.3	4.9	0.7	8.3	-0.2	0	-0.4	-0.1	-0.7
(7b) Education	4.3	2.7	3.9	3.6	14.5	0.8	0.6	0.7	0.7	2.8
(7c) Other services and private households	2.7	1.3	2.5	3.8	10.4	-0.4	-0.4	0.3	0.4	-0.2
Total non-agricultural	95.3	25.5	102.9	24.4	248.1	22.4	4.9	17.0	3.8	48.0
Total employment	234.4	101.6	109.1	27.4	472.5	16.8	-21.8	17.6	2.1	14.7

RM, RF, UM and UF refer to rural males, rural females, urban males and urban females, respectively. Also see under Table 1.

Source: Estimates based on the Survey on Employment and Unemployment, NSSO, 61st, 66th and 68th rounds.

## Growth of Labour Demand

Between 2004-05 and 2011-12, total non-agricultural employment in India increased by 48 million. Jobs in construction, which rose by 24 million, accounted for half of this increase (Table 2). These construction jobs, which were overwhelmingly in the rural areas, were likely to be of poor quality.

In contrast, employment in manufacturing increased by just 5.1 million in India during the seven years after 2004-05 (Table 2). And the rate of job creation in this sector decelerated from 1.2 million jobs a year between 1993-94 and 2004-05 to 0.7 million jobs a year between 2004-05 and 2011-12. Manufacturing employment had, in fact, declined in absolute numbers, by three million, between 2004-05 and 2009-10. However, staging a recovery, eight million manufacturing jobs were added in the country during the next two years (2009-12).

The traditional service sector activities – comprising trade and repair services, hotels, transport and communication, and community, social and personal services – together generated 13 million jobs in India between 2004-05 and 2011-12 (Table 2). The rate of employment generation in these sectors, combined, declined from 3.2 million a year between 1993-94 and 2004-05 to 1.9 million a year between 2004-05 and 2011-12.

Other than construction, the only sector in which job creation accelerated in the country after the mid-2000s was in finance, insurance, real estate and business services, which also include computers and related activities. This relatively high productivity sector added 5.8 million new jobs between 2004-05 and 2011-12 (Table 2).

## Quality Only for Urban Males

Men in urban areas benefited disproportionately from the growth of non-agricultural employment in India in sectors other than construction. Urban males accounted for only 16% of India's total population, but 77% of all jobs in computer and related activities in 2011-12, and 60% or even more of the incremental employment (between 2004-05 and 2011-12) in manufacturing and in finance, real estate and business services (Table 2).

On the other hand, for people in rural areas, construction has virtually been the only source of non-agricultural employment after the mid-2000s. For rural males it accounted for 70% of the net increase in non-agricultural employment (15.7 million out of 22.4 million) during 2004-12 (Table 2).

Women, including urban women, received only a marginal share of the better quality employment generated in India. The share of females in incremental employment (between 2004-05 and 2011-12) was only 21% in finance, real estate and business services, 18% in computer and related activities, and 3% in trade, repair, hotels, transport and communication combined (Table 2).

## Demographic Dividend Lost?

Overall, the generation of non-agricultural employment in the Indian economy has fallen behind the growth in the supply of “potential” non-agricultural workers.

Additions to the pool of potential non-agricultural workers come from two sources: the growth of the working-age population and the shift of the workforce away from agriculture. At the same time, the growth in the number of students, who are not part of the labour force, tends to reduce the size of this pool.

Between 2004-05 and 2011-12, the population of rural males aged 15 to 59 years in India increased by 32.9 million, almost half of whom (16.4 million) were students (Table 3). Including the 5.7 million who shifted out of the primary sector, the net addition to the potential non-agricultural workforce on account of rural males during 2004-12 was 22.2 million (32.9 million + 5.7 million – 16.4 million). During the same period (2004-12), 21.1 million new non-agricultural job opportunities were generated in the country for rural males (Table 3).

Thus, in the case of rural males, the demand seems to be broadly in line with the supply of non-agricultural workers, but this may not be so in the future. With the rise in education levels, India's rural workers will demand better quality jobs in the coming years – outside agriculture and outside even construction.

In the case of females, the supply of potential non-agricultural workers far

exceeds the demand. For instance, between 2004-05 and 2011-12, the population of urban females (aged 15-59 years) in India increased by 26 million, out of which six million were students. Including the 1.5 million who exited from agriculture and allied activities, the number of urban females who could potentially work for industry and services increased by 21.5 million in India during 2004-12 (26 million + 1.5 million – 6 million) (Table 3).

On the other hand, industry and services sector together generated a meagre 3.7 million new jobs for urban females between 2004-05 and 2011-12. During the same period (2004-12), as many as 17.7 million out of the incremental population of 26 million urban females were attending domestic duties in India (Table 3).

The low rate of female labour force participation is a severe obstacle to India's social and economic development. Highlighting this issue, Thomas (2012) showed that the proportion of females attending to domestic duties was relatively high among the better educated and among those belonging to the richer households. While a variety of social and economic factors could be attributed to the low levels of female labour force participation in India, the discouragement effect arising from the low demand for labour is clearly the most important among them.

To sum up, the generation of non-agricultural employment in India has accelerated after the middle of the first decade of this century. At the same time, the pace of this job creation has been inadequate to absorb the rising supply of potential workers, especially females. With the movement of workers away from agriculture, with their rising education levels this challenge will grow bigger in the coming years, particularly in the rural areas. Unless India's economic policies are geared towards a significant revival in the growth of decent jobs, the country risks losing its demographic dividend – the female part of this dividend in particular.

## REFERENCE

Thomas, Jayan Jose (2012): “India's Labour Market during the 2000s: Surveying the Changes”, *Economic & Political Weekly*, Vol 48, No 51, pp 39-51.