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# THE STATE OF EMPLOYMENT IN UTTAR PRADESH

## Unleashing the potential for inclusive growth



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# THE STATE OF EMPLOYMENT IN UTTAR PRADESH

Unleashing the potential  
for inclusive growth

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# Preface

The question of decent employment has occupied a centre stage in development policy debate in India and across the globe in recent years. In the Indian context, improving the quality of employment, in terms of rising wages and access to social security, was considered an important concern of state policy. Despite such concerns, the progress on the front of employment generation has been mixed one. There exist significant inter-regional and intra-regional differences in employment outcomes in India particularly witnessed along with a consistently high rate of economic growth of over 6 per cent since the 1980s. Besides quantity, the quality of employment is a major challenge, which is critical in achieving economic and social development across different regions of the country.

The development experience of Uttar Pradesh has been encouraging, particularly during last two decades. But the state still lags behind in several indicators of development as compared to most of other states in India. Uttar Pradesh faces three major challenges in its development path: expanding economic opportunities for employment generation; ensuring empowerment of poor and marginalised groups to take advantage of new opportunities in a rapidly changing world; and ensuring an effective safety net to reduce vulnerability and protection of poor.

In this context, this paper examines trends and patterns of employment, unemployment and earnings in Uttar Pradesh with a focus on gender, social groups and geographical regions of the state. It brings out several distinct features of the labour market in the state. The study argues that the state will need to continue its prioritization of key development issues and in order to catch up with other fast growing regions in the country, focus on accelerating its economic growth, which is essential for the creation of quality employment. Due to the lack of employment opportunities and social security programmes, there are formidable challenge of poverty reduction particularly in urban areas and among SC/STs.

Similar to the national pattern, Uttar Pradesh has over the years experienced a significant shift from agriculture to non-farm employment, but at a slow pace. Construction emerged a major employer after agriculture, providing largely low-quality employment. Most of the additional jobs created in the non-farm sector were of casual in nature. Such high pace of casualization was widespread in all regions of the state except the eastern region where dependence on agriculture did not reduce much. The growth scenario of male and female employment differed significantly in Uttar Pradesh along with decline in female labour force participation rates. The incidence of unemployment among graduate females in the state is more than double the national average. Similarly, the average daily wages of casual labour in the state are much lower the national average, explaining poor incomes and persistence of poverty in Uttar Pradesh. The slow pace of growth in wages of SC/STs in Uttar Pradesh also indicates widening income inequality as reflected by the increasing share of these workers in the lowest income quintile. Similar to the national scenario, poor employability of the labour force is yet another major challenge in the state, but the degree of its severity is more in Uttar Pradesh. Skill development initiatives will remain key priorities for the state.

The demand-side scenario of labour market has been constrained by slow pace of investment in labour-intensive manufacturing apart from highly-skewed industrial development in the state. The micro, small and medium enterprise (MSMEs) face several problems, such as a lack of working capital, insufficient space to efficiently operate the enterprise, inadequate raw materials, power shortages, and shortage of skilled labour. With its enormous potential, Uttar Pradesh will need to follow a growth path that results in remunerative jobs for its labour force, both within farm and non-farm sectors. Critical aspects of this agenda include reducing gender and social gaps in employment opportunities and earnings, and the pace of distress migration. Towards these goals, the findings of the study will hopefully be useful for policy-makers, social partners, researchers and civil society organisations committed to addressing the development concerns of Uttar Pradesh.

For this paper, we thankfully acknowledge the valuable cooperation with the Giri Institute of Development Studies in Lucknow, Uttar Pradesh, India. An earlier version of this paper formed the part of the background paper prepared for the ILO-sponsored panel discussion on 'Labour and Employment in Uttar Pradesh'. The panel discussion was organized during the International Seminar on "Growth, Disparities and Inclusive Development in Uttar Pradesh: Experiences, Challenges and Policy Options" held on 23-25 September 2016 by Giri Institute of Development Studies, Lucknow. We are grateful to Prof. K.P. Kannan, Prof. S.R. Hashim, Dr. Rizwanul Islam, Prof. Ravi Srivastava, Prof. Surinder Kumar and Mr. Rajendra Kumar Tiwari, Principal Secretary, Department of Labour, Government of Uttar Pradesh for their valuable comments and suggestions on an earlier draft of the paper. Excellent research support by Mr. Shivakar Tiwari is acknowledged.

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# Abbreviations

<b>CDI</b>	Composite Development Index
<b>FICCI</b>	Federation of Indian Chambers of Commerce and Industry
<b>GDDP</b>	Gross District Domestic Product
<b>GoI</b>	Government of India
<b>GoUP</b>	Government of Uttar Pradesh
<b>GSDP</b>	Gross State Domestic Product
<b>INR</b>	Indian rupee
<b>ITI</b>	Industrial Training Institute
<b>LFPR</b>	Labour force participation rate
<b>MNREGS</b>	Mahatma Gandhi National Rural Employment Guarantee Scheme
<b>MPCE</b>	Monthly per capita expenditure
<b>MSME</b>	Ministry of Micro, Small & Medium Enterprises
<b>NSDC</b>	National Skill Development Corporation
<b>NSSO</b>	National Sample Survey Organisation
<b>OBC</b>	Other Backward Caste
<b>R&amp;D</b>	Research and development
<b>SC</b>	Scheduled Caste
<b>ST</b>	Scheduled Tribe
<b>UP</b>	Uttar Pradesh
<b>UPSDM</b>	Uttar Pradesh Skill Development Mission
<b>WPR</b>	Workforce participation rate



# 1 Introduction

Eradication of poverty and expansion of productive employment to ensure work to all have been important concerns of development policy all through the past six decades of development planning in India. However, while the country has made several strides since Independence, the problems of widespread poverty, unemployment and underemployment still persist. In recent years, the process of globalisation has also resulted in certain trends in labour markets which have put the employment issue at centre stage. While the Indian economy has grown at an average rate of more than 6.5 per cent since the 1990s and new avenues of employment opportunities have opened up, there is also evidence of worsening employment conditions and declining social security arrangements (GoI-MoF, 2015). The prevalent policies and programmes have achieved limited success in shifting labour from the less remunerative agriculture sector to other sectors for ensuring decent employment. There are striking regional inequalities in employment and income-generating opportunities. This is also true across gender and socio-religious groups of population.

Uttar Pradesh – the most populous state in the country – has long been the cradle for the country's economic, social and political development. The available statistics show significant achievements that Uttar Pradesh has made in the spheres of economic, social and cultural well-being, particularly since early 1990s. However, in almost all development indicators, the state remains among the bottom states (Mathew et al., 2016; CSO, 2015). Nearly 55 per cent of workers are dependent on agriculture for their livelihood, whereas the sector contributes only 27.5 per cent to gross state domestic product. Though there has been a substantive shift of workers from agriculture and allied activities, most of such opportunities are casual in nature and fetch low income to a large majority of workers in the state. The economy of Uttar Pradesh lags behind in generating adequate quantity of good quality jobs. The incidence of distress-induced migration has increased over the years, which is yet another major issue that could be addressed simply by improving employment opportunities in the state.

Inter-regional disparities in various indicators of development persist within Uttar Pradesh (GoUP-DES, 2013). Consisting of four economic regions, the per capita income in the eastern region of the state is almost half of that in the western region. Then again, there are striking differences in the development outcomes among various social and religious groups even within these regions. Scheduled Castes (SCs), Muslims and Other Backward Classes (OBCs) lag behind other castes in Uttar Pradesh. And although it

is a pattern similar to the rest of the country, the pace of progress among SCs and Muslims in the state is far behind than in several other states. This results in increasing inequality among these groups at national as well as sub-national level (Srivastava, 2011). Such disparities in development among various social/religious groups assume importance due to the fact that there is a strong concern for social inclusion at the state level.

Yet another major challenge is the mismatch in the demand and supply of education and skills that affect the overall employability of youth in the state and in the rest of the country as well. On the one hand, employers complain about shortages of skilled manpower that pose hurdles in their expansion, and on the other hand, there is a high rate of unemployment among educated youth, particularly among women. Employers find a large number of job-seekers unemployable due to insufficient exposure of the latter to practical aspects of education (FICCI, 2010). The relatively poor educational and skill levels among labour force are eroding their employability in the modern economic sector. Further, labour regulations are being seen as major stumbling blocks in the creation of employment opportunities for labour. At the same time, there has been a weakening of labour institutions, including in Uttar Pradesh (World Bank, 2010, 2012).

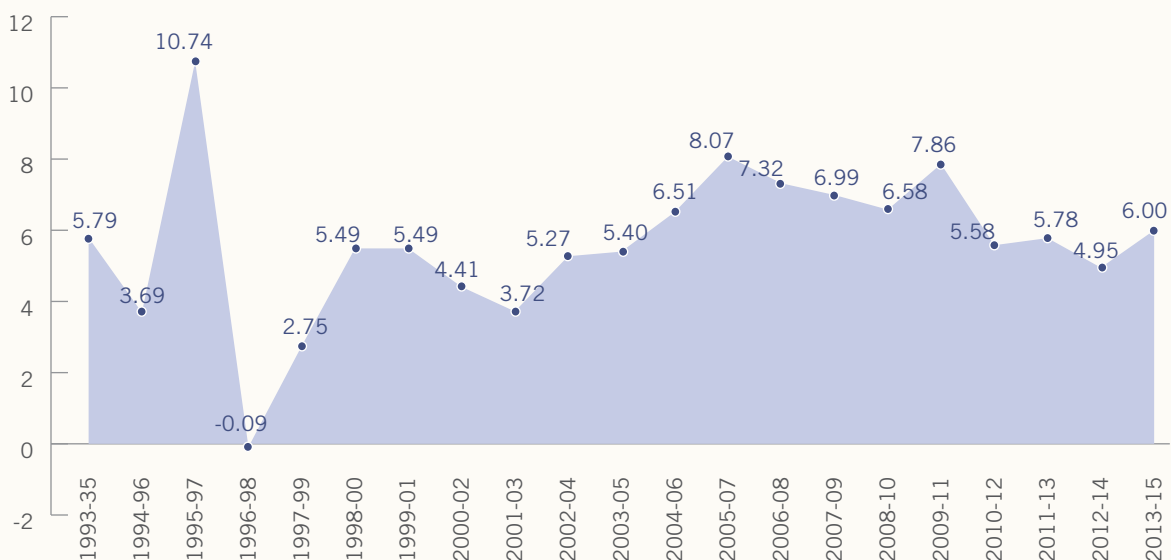
In summary, Uttar Pradesh faces three major challenges in redressing poverty and expanding inclusive growth. First, to expand economic opportunities for employment generation; second, to ensure that the poor and marginalised groups are empowered to take advantage of new opportunities in a rapidly changing world; and third, to ensure an effective safety net is in place to reduce vulnerability and protect the very poor and destitute.

The remainder of this paper examines the question of employment, unemployment and earnings in Uttar Pradesh with a focus on gender and social groups. The next section analyses the trends in economic growth, poverty and inequality. Section III attempts to study the growth in labour force and related characteristics since the onset of economic reforms in the early 1990s. Section IV analyses the nature, quality and growth in employment in the state. This section also examines the nature and magnitude of unemployment in the state. Inequality in wages and earnings form the central theme of Section V. Due to the lack of income data for the self-employed, consumption expenditure is taken as a proxy to show how workers belonging to various employment categories, gender and social belonging are distributed across various per capita expenditure quintiles. Section VI analyses the trends in education and skill development in Uttar Pradesh and shows how the state suffers with slow pace of educational development and skill training of its vast population. The demand side concerns of labour market are examined in Section VII by highlighting low enterprise development in the state and related problems faced by entrepreneurs in operating their enterprises. The concluding section summarises the major findings of the paper.

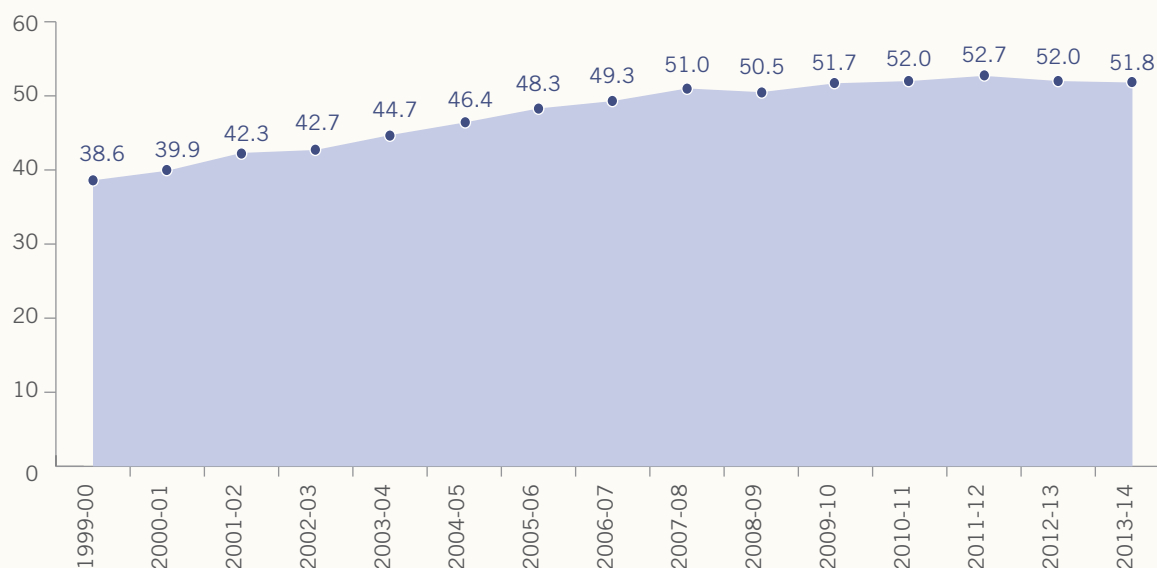
## 2 Growth, regional inequalities and poverty

The economy of Uttar Pradesh has been growing at an average growth rate of 6.5 per cent per annum during the last decade (2004-05/2014-15). While looking at long-term trends in the annual growth rates of Gross State Domestic Product (GSDP), Uttar Pradesh has significantly accelerated its growth rate since 1993-94 (Figure 1). However, the state lags behind the national growth rate persistently. In fact, the gap in annual growth rates of per capita income of Uttar Pradesh and India has widened considerably in recent years. In 2013-14, with a per capita income of INR 19,233 at 2004-05 constant prices, the state's income has been less than half of the national average (Figure 2).

**Figure 1: Annual growth rate of GSDP at 2004-05 prices (%)**



Source: CSO, Gross State Domestic Product - Uttar Pradesh, 2016.

**Figure 2: Gap in per capita income of UP in comparison to India (%)**

Source: CSO, Gross State Domestic Product - Uttar Pradesh, 2016.

Such a widening gap in per capita income can be traced to the growth and structure of GSDP in the state. More than two-fifths of GSDP of the state is contributed by agriculture and allied activities. This share is comparatively larger than the national average. Similar to the national pattern, the services sector (also termed as tertiary sector) contributed a highest 58 per cent to the GSDP in Uttar Pradesh. While the share of secondary sector (which include mining, manufacturing and construction) almost stagnated at around 20 per cent in GSDP, there has been acceleration in the share of services sector in state's GSDP over the years (Table 1). The sectors which experienced faster double-digit growth in Uttar Pradesh between 2004-05 and 2014-15 included transport, communication, banking and financial services, real estate and other services. Manufacturing sector registered around 5 per cent compound annual growth. Construction sector, a major employment creator in recent years, registered a growth of 6.5 per cent during the period. Agriculture, the largest employer, registered an annual growth of 3.2 per cent. Fisheries within the agriculture sector witnessed a sizeable growth of 5.7 per cent per annum in the state (Annexure Table 1).

**Table 1: Structural changes in GSDP in Uttar Pradesh (GSDP at 2004-05 constant prices)**

Sector	1993-94	2004-05	2011-12	2014-15
Primary	39.03	29.74	23.00	21.56
Secondary	22.22	23.26	23.04	20.78
Tertiary	38.75	47.01	53.96	57.66
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source: Gross State Domestic Product, Central Statistical Organisation, Ministry of Statistics and Programme Implementation, Government of India, various years.

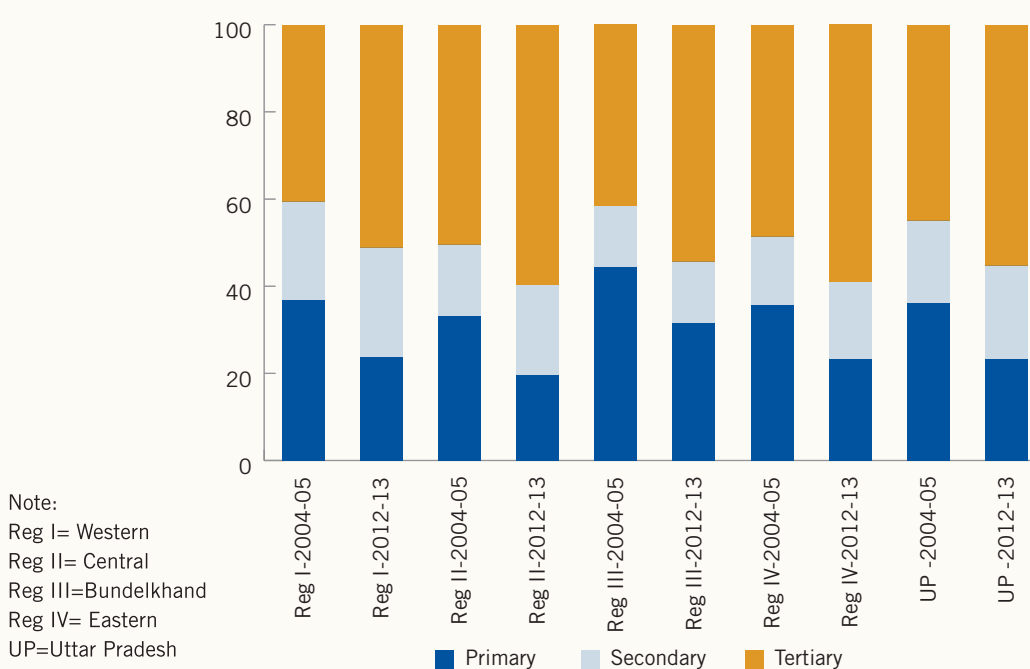
Yet another important feature of Uttar Pradesh's economy is significant regional disparities in its development. With a per capita income of INR 28,324, the western region tops other regions, namely, the central region, Bundelkhand and the eastern region. Bundelkhand — a dry region — surprisingly ranks second in per capita income (Table 2). The structure of Gross District Domestic Product (GDDP) significantly varies across the four regions of Uttar Pradesh. 31 per cent of GDDP in Bundelkhand region is contributed by the primary sector. The corresponding share of the primary sector in GDDP is lowest at 20 per cent in the central region. In the western region, secondary sector contributes a highest one-fourth to GDDP. In other regions the share of secondary sector ranges between 14 to 20 per cent. The tertiary sector is a highest contributor to GDDP across all the regions, but its share is highest at around 60 per cent in the central and eastern regions — these two regions have comparatively low per capita income. In brief, the dominance of services sector in GDDP is observed across all regions of the state with varying scale. This share tended to increase over the years across all regions but more so in Bundelkhand and the eastern region (Fig 3).

**Table 2: Region-wise structure of Gross District Domestic Product in Uttar Pradesh, 2012-13 (GDDP at 2004-05 constant prices)**

Region	Primary	Secondary	Tertiary	Total	Per capita income (INR)
Western Region	23.72	25.21	51.06	100	28 324
Central Region	19.54	20.79	59.67	100	22 632
Bundelkhand	31.48	14.20	54.31	100	26 805
Eastern Region	23.21	17.72	59.07	100	16 522
Uttar Pradesh	23.26	21.54	55.20	100	22 459

Source: Directorate of Economics and Statistics, GoUP, 2013.

**Figure 3: Region-wise structural shifts in GDDP, 2004-05/2012-13 (%)**



Source: Directorate of Economics and Statistics, GoUP, 2013.

The high level of per capita income in the western region is a reflection of the widespread development in the region. All districts (26) except two in this region are developed (with a composite development index or CDI value over 86). The central region also fares well as only four out of 12 districts in the region have very low values of CDI. In the Bundelkhand region none of the seven districts belong to high-medium values of CDI (105-125) and most developed (CDI value over 125) category. The eastern region, is largely the most underdeveloped with 11 out of 26 districts therein counted among the most backward districts as indicated by very low values of CDI (< 75). In brief, nearly 56 per cent of districts in Uttar Pradesh have low levels of development. Another 30 per cent have medium levels of development (Diwakar, 2009). These statistics clearly indicate the challenge of regional development within the state, which has far-reaching implications for employment and employability of population residing in such regions.

## 2.1 Poverty

Uttar Pradesh has made considerable progress in reducing its poverty in the period between 2004-05 and 2011-12. This has been mainly driven by a remarkable reduction of over 25.4 percentage points in rural poverty in the state, bringing its level around the national average of rural India in 2011-12. The pace of poverty reduction in urban areas of the state has been less impressive as it reduced only by about 5 percentage points from 42 per cent in 2004-05 to 37.2 per cent in 2011-12. While the rural poverty ratio of the state is almost similar to the national average, the urban poverty ratio in Uttar Pradesh is more than double than that of India (Table 3). Uttar Pradesh is among the few states which have a substantively higher proportion of urban poverty (37.2 per cent) than that exists in rural areas (29 per cent).

**Table 3: Incidence of poverty\* in Uttar Pradesh and India, 2011-12**

Region	Rural			Urban		
	2004-05	2011-12	Change 2005/2012	2004-05	2011-12	Change 2005/2012
Western	45.48	19.46	26.02	43.18	33.95	9.23
Central	51.3	41.06	10.24	29.57	37.11	-7.54
Eastern	62.81	32.72	30.09	49.74	44.62	5.12
Bundelkhand	53.9	29.86	24.04	56.14	37.38	18.76
UP	54.38	28.99	25.38	42.31	37.24	5.07
<b>India</b>	<b>43.76</b>	<b>28.10</b>	<b>15.66</b>	<b>26.64</b>	<b>16.98</b>	<b>9.66</b>

Note: Calculation based on Tendulkar's poverty line method.

Source: Calculated from the unit level data of NSSO rounds on consumption expenditure, various years.

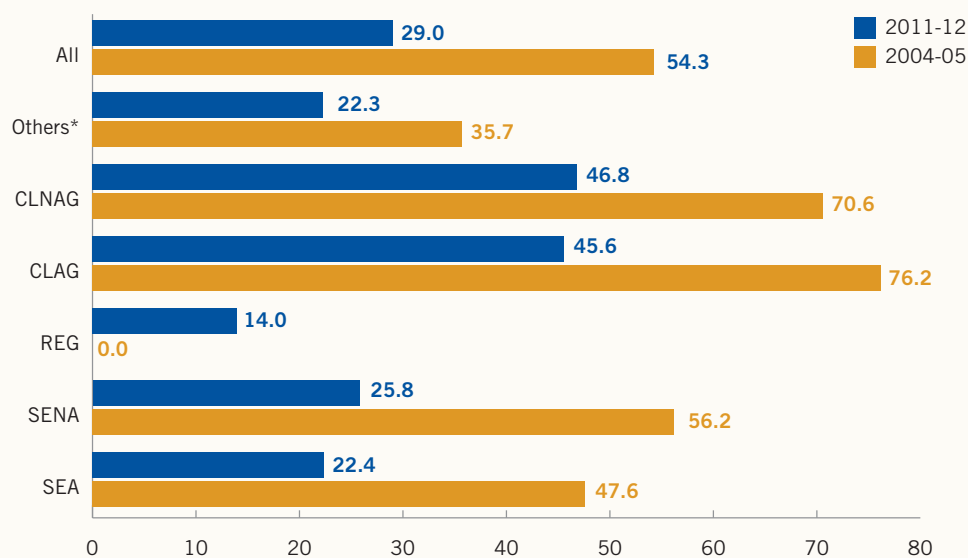
There are huge regional disparities in the incidence of poverty in Uttar Pradesh. It ranges between a highest 41 per cent among rural population residing in the central region to less than one-fifth in the western region (Table 3). Rural poverty in the central and the western regions decreased maximum by 30 and 26 percentage points respectively between 2004-05 and 2011-12. In urban areas of the eastern region, a highest 45 per cent of population still live below poverty line income. While urban poverty in Bundelkhand decreased sharply by nearly 19 percentage points, it increased by 7.5 percentage points in the central region. A 9.2 percentage points decline in urban poverty in the western region has been an unimpressive



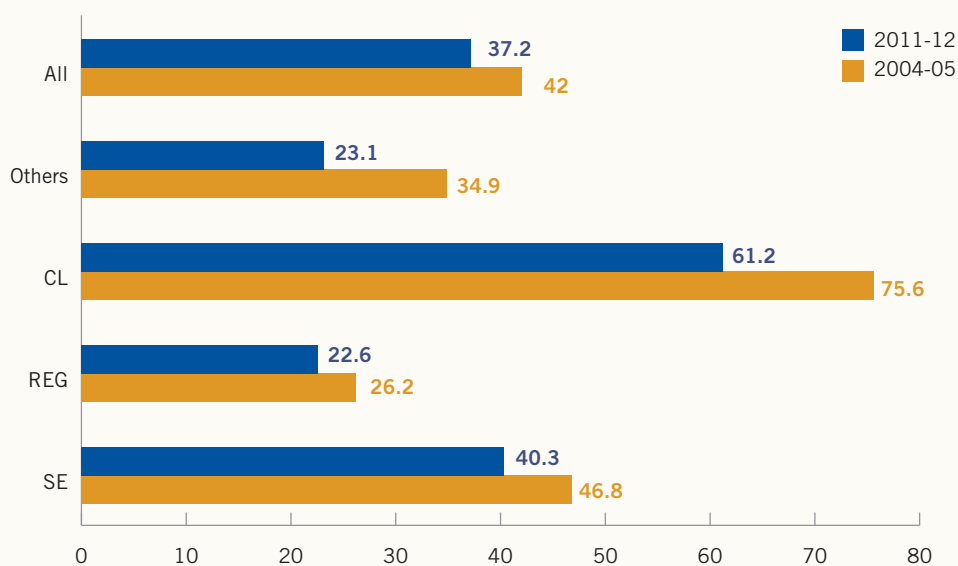
pace, particularly because this region witnessed a striking growth in per capita income during the same period (Table 3).

An analysis of incidence of poverty across occupational categories of households bring forth important lessons for programmatic interventions. Poverty ratios significantly vary across various occupational categories of households, both in rural and urban areas. While casual labour households generally suffered with the maximum brunt of poverty over the years, it was least among those largely dependent on regular salaried incomes (Annexure Table 2).

46 per cent of casual labour households in rural Uttar Pradesh were living below poverty line income during the year 2011-12. The next occupational category of rural households suffering from a high incidence of poverty include self-employed in non-farm activities, followed by the self-employed in agriculture, and least among those households deriving their incomes mainly from regular salaried jobs (Figures 4 and 5). Compare this with figures for rural India and there have been some interesting deviations worth mentioning. First, the incidence of poverty among the self-employed households in agriculture in rural Uttar Pradesh was lower than rural India. Second, poverty was higher for other occupational categories of rural households in Uttar Pradesh as compared to rural India. Third, the incidence of poverty among the casual labour households was almost identical both in rural Uttar Pradesh and rural India (about 45 per cent). In urban areas of the state, the pattern of poverty incidence follows the similar pattern as is seen in rural areas, i.e. highest among casual labour households, followed by self-employed households and least among regular salaried income households. However, the proportion of poor households across all occupational categories of urban households is significantly higher than their rural counterparts in Uttar Pradesh. In urban Uttar Pradesh, about 60 per cent of casual labour households and 40 per cent of self-employed households remained poor in 2011-12. The pace of reduction in poverty among these households was slower — 14.3 and 6.5 percentage points — in the state between 2004-05 and 2011-12 (Figure 5 and Annexure Table 2).

**Figure 4: Poverty among rural households by their major occupation in Uttar Pradesh (%)**

Note: \* Others included REG in 2004-05. SEA=Self-employed in agriculture, SENA=Self-employed in non-agriculture activities, REG=Regular salaried employment, CLAG=Casual labour in agriculture, CLNAG=Casual labour non-agriculture sector, Source: Annexure Table 2.

**Figure 5: Poverty among urban households by their major occupation in Uttar Pradesh (%)**

Note: SE=Self-employed, REG=Regular salaried employment, CL=Casual labour Source: Annexure Table 2.

How does the incidence of poverty vary among social groups and how has it declined over time? Can growth in Uttar Pradesh be termed as inclusive by leading a faster reduction in poverty among marginalised groups than others? Though 40.5 per cent of SC/STs remained poor as compared to others (27.5 per cent) in 2011-12, poverty declined by a highest 26 percentage points among the former. This can certainly be a remarkable achievement of higher growth and focus on development of SCs in the state, but it has been mainly limited to rural areas. More than half the SC/STs in urban areas were poor as compared to one-third of their counterparts from other social groups in 2011-12. Moreover, the decline in poverty among SC/STs in urban Uttar Pradesh was merely 3.5 percentage points as compared to a decline of about 5.4 percentage points for others between 2004-05 and 2011-12 (Annexure Table 3). These patterns broadly indicate an exclusionary character of growth coupled with weak social security in urban areas of the state.

The rate of reduction in poverty among SC/STs was remarkable in the western and eastern regions of the state with a highest decline of 30 percentage points, thus bridging the gap in poverty levels among SC/STs and Others substantially during the period 2004-05 to 2011-12. This gap in poverty among SCs and Others, however, remained almost unchanged in Bundelkhand. In fact, poverty among SC/STs in the urban areas in Bundelkhand almost remained unchanged at 51 per cent during the period 2004-05 and 2011-12 (Annexure Table 3).

In brief, along with its fast economic growth, decline in rural poverty has been a noteworthy feat in Uttar Pradesh. Both SC/ST and Other groups have benefitted from this poverty alleviation but the rate of reduction was much faster among SC/STs. This seems to be mainly driven by reasonably higher economic growth in agriculture sector in the state by over 3.2 per cent per annum and a robust increase in wages of casual wage labourers between 2004-05 and 2014-15 (Both the sectors being major employers of SC/ST workers). Moreover, despite the shortcomings in the implementation of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS) in the state, it has helped push up rural wages for casual work and eased the burden of poverty among rural households at a faster pace, particularly among casual wage labour households. In the urban areas, due to the lack of social security programmes, the challenge of poverty reduction in the state still remains formidable, and SC/STs are severely affected due to this neglect.

# 3 Labour force and its characteristics

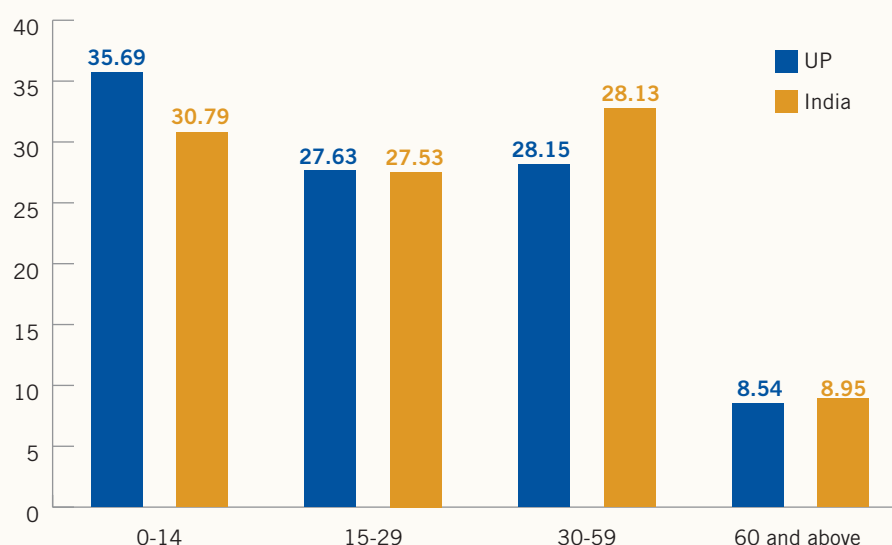
## 3.1 Demographic and social profile

With a population of 199.58 million in 2011, Uttar Pradesh is the most populous state of the Indian union, accounting for 16.5 per cent population of the country. Women constitute about 47.6 per cent of population in the state. Similar to the all-India pattern, the decadal growth of population in the state decelerated from 25.9 per cent during 1991-2001 to 20.1 per cent during 2001-2011. The sex ratio, defined as number of women per 1000 men, has marginally improved from 898 in 2001 to 908 in 2011 in the state (GOI-RGI 2011). Even then, it is comparatively lower than the national average of 940 in 2011. Low sex ratio in the state also indicates higher mortality rate among females. As compared to their male counterparts, the life expectancy of females in Uttar Pradesh is lower by one year (59.3) — unlike the national average pattern. One of the implications of the lower life expectancy of females in the state is their lower participation in the workforce.

The age structure of population in Uttar Pradesh is significantly different than that of the rest of the country. There are more children in proportion to those in the prime working age-group of 30-59 years (Fig. 6). In other words, Uttar Pradesh is likely to enjoy the demographic dividend for a comparatively longer period as compared to other states, such as Kerala, Tamil Nadu and Gujarat.

In terms of the social composition of population, Scheduled Castes constitute 21.15 per cent of the state's population in 2011. Nearly 18.6 per cent of population is Muslim and an overwhelming majority of 80.6 per cent of population is Hindu in the state.

With a female literacy rate of over 59 per cent, Uttar Pradesh ranks at 31 among the 35 states and union territories in the Indian union. There is still a gender gap of nearly 20 percentage points in literacy in the state. However, the Population Census 2011 shows significant improvement in the literacy rates, both in Uttar Pradesh and in India as a whole, over the past decade. The state may take another few years to bridge its gender gap in literacy.

**Figure 6: Age-structure of population, 2011**

Source: Population Census, 2011, Registrar General of India, New Delhi.

### 3.2 Labour force participation

Low participation of women is a general characteristic of Indian labour market. This argument is now being increasingly contested by some scholars working on time-use survey data by National Sample Survey Organisation. In fact, their analyses have shown a higher participation of women in the work in the framework of SNA and non-SNA activities (Hirway, 2014; Ghosh, 2013), though this does not detract from the point that women's participation in activities *outside* the home remains low. We have examined the patterns in labour force participation (LFPRs) for the population in the age-group of 15-59 – considered to be economically most active age-cohort. For rest of the analysis based on NSSO data on employment and unemployment, we have considered the age-group of 15-59 only.

About 82 per cent of males and one-fourth of females in the age-group of 15-59 years form the labour force in Uttar Pradesh. While the LFPR of males in rural and urban areas, both in Uttar Pradesh and India, are very similar, they vary significantly for females across rural and urban areas. In urban areas the LFPR of females is considerably lower as compared to their counterparts in rural areas. During 2011-12, only 15.1 per cent of females were in labour force in urban areas of Uttar Pradesh as against 28.4 per cent in rural areas. When compared to the corresponding national average, the LFPRs of females, both in rural and urban areas of the state were lower by nine and seven percentage points respectively (Table 3).

**Table 4: Labour force participation rates (15 to 59 Yrs), 2011-12**

	Male	Female	Person
<b>Uttar Pradesh</b>			
Rural	82.55	28.35	55.86
Urban	80.58	15.12	49.31
<b>Total</b>	<b>82.05</b>	<b>25.13</b>	<b>54.23</b>
<b>India</b>			
Rural	83.52	37.57	60.79
Urban	80.94	22.22	52.53
<b>Total</b>	<b>82.65</b>	<b>32.53</b>	<b>58.04</b>

Source: NSSO unit level data, 68<sup>th</sup> round.

The reasons for low female LFPRs in the state are generally explained in terms of lack of employment opportunities and social and cultural restrictions in mobility of women to actively search for jobs in the labour market.

LFPRs vary substantially for population belonging to different social groups. Generally, Scheduled Caste (SCs) and Scheduled Tribes (STs) have higher LFPRs as compared to Other social groups. This is mainly due to higher participation of SC/STs in the labour force, largely to augment their low earnings. Moreover, there are less severe restrictions on the participation of SC women in the labour market as compared to Other population groups. It is pertinent to mention here that the proportion of STs in Uttar Pradesh's population is quite low. The state recorded the highest participation of SC/STs in the labour market in 2011-12 — 83.2 per cent men and 31.1 per cent women. The corresponding figures for Others are 81.7 per cent and 23.3 per cent respectively in the same period (Table 4). As mentioned earlier, higher number of SC/ST women in the workforce is generally a characteristic of widespread poverty and relatively less stringent social restrictions on the participation of women belonging to these groups.

**Table 5: Labour force participation rates (15 to 59 years) by social group, 2011-12 (%)**

	Male	Female	Person
<b>Uttar Pradesh</b>			
SC/ST	83.24	31.09	58.43
Others	81.66	23.33	52.91
<b>Total</b>	<b>82.05</b>	<b>25.13</b>	<b>54.23</b>
<b>India</b>			
SC/ST	84.46	41.48	63.27
Others	81.99	29.22	56.1
<b>Total</b>	<b>82.65</b>	<b>32.53</b>	<b>58.04</b>

Source: Calculated from NSSO unit level data, 68<sup>th</sup> round.

LFPRs also varied significantly, more so for females, across NSSO's four agro-climatic zones in Uttar Pradesh. The eastern region with one-third women in the labour force has the highest participation, while the western region, at 16.3 per cent, has the lowest participation (Table 5). These variations are

largely due to varying socio-economic composition and resultant customary practices, and agricultural practices in rural areas of the regions.

**Table 6: Regional trends in labour force participation rates in Uttar Pradesh (%)**

Region	1993-94			2004-05			2011-12		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
Western	89.46	22.33	57.97	86.53	28.08	59.61	82.44	16.33	51.73
Central	88.18	23.42	58.41	87.11	35.23	62.65	85.29	28.52	58.38
Eastern	87.42	39.94	63.72	85.04	40.25	62.33	80.92	33.16	55.57
Southern	88.19	42.79	67.33	85.53	53.57	70.67	75.82	19.43	51.22
<b>All</b>	<b>88.42</b>	<b>30.41</b>	<b>60.70</b>	<b>86.06</b>	<b>35.45</b>	<b>61.76</b>	<b>82.05</b>	<b>25.13</b>	<b>54.23</b>

Source: Computed from NSSO unit level data, various rounds.

It is also interesting to see how the LFPRs of men and women have changed over the past three decades, across rural and urban areas and different regions of Uttar Pradesh. In tandem to the national pattern, there has been a declining trend in LFPRs of both men and women in the state between 2004-05 and 2011-12. Female LFPRs declined by a highest 10 percentage points and that of males by about four percentage points between 2004-05 and 2011-12. During the earlier period, 1993-94 to 2004-05, LFPRs did not change substantially for men but increased by about five percentage points for women. The highest decline in women LFPRs is seen in rural areas, which declined from over 40.6 per cent in 2004-05 to 25.1 per cent in 2011-12. A similar pattern in the LFPRs for men and women can be seen at all-India level as well (Annexure Tables 4a, 4b).

The pace of decline in LFPRs, however, significantly vary between SC/ST and Others for their men and women in Uttar Pradesh. For example, while LFPRs of SC/ST men declined by six percentage points, it declined by three percentage points for men of the Others category between 2004-05 and 2011-12. A highest decline of 16 percentage points in LFPRs is observed among SC/ST women during the period 2004-05/2011-12. The corresponding decline for Others women was much less, by about 9 percentage points (Annexure Table 5a).

The pattern in female LFPRs was mixed across agro-climatic regions over a period of 18 years. Contrary to the overall decline in female LFPRs, it tended to increase at a faster pace in the central region of the state, but declined significantly in the southern region from nearly 43 per cent in 1993-94 to 19.4 per cent in 2011-12. In the western and eastern regions, the female LFPRs declined by about six percentage points between 1993-94 and 2011-12 (Table 5). Such mixed pattern in long-run participation of females in the labour market would certainly need more in depth analysis besides the generally advanced arguments of increasing participation in education by women and improvement in their family earnings.

In brief, the decline in LFPRs among women have been steeper in rural areas and among those belonging to SC/ST social groups. Thus, the overall decline in the LFPRs of women in Uttar Pradesh, as well as in India, can be explained to some extent by the rising enrolment/retention in the spheres of secondary and tertiary education. Also, an improvement in household income along with lack of remunerative employment opportunities is also leading to lowering female LFPR (Neff et al. 2012; Rangarajan et al. 2011)The

interplay of various socio-cultural, economic and religious factors also resulted in their overall low participation in the labour market (Verick and Choudhary 2016). The non-recording of women's work in recent years has also been cited as yet another reason for low LFPR among women (Hirway 2014). Neff et al. (2012) argue that while education can be an explanatory factor in rural areas for decline in women's workforce participation rates (WPRs), it does not hold true for urban areas. Rather, they found a significant evidence of a decline in women WPR due to improvement in household incomes, suggesting reduction in distress-induced WPRs.



# 4 Employment and its quality

## 4.1 The employment challenge

Nearly 53.3 per cent of population in the age-group of 15-59 years constitute the workforce in Uttar Pradesh. Over 80 per cent of men and nearly one-fourth of women were working in this age-group in the state during 2011-12. Similar to the LFPRs, the patterns in workforce-population ratios (WPRs) for men do not vary substantially across rural and urban areas in Uttar Pradesh and in the rest of the country. These however significantly vary in case of women. In urban areas, only 14.5 per cent of women are workers as compared to over 28 per cent in rural areas of Uttar Pradesh. The proportion of women as workers is also substantially lower in Uttar Pradesh as compared to the national average (Table 6). The longer term trends in WPRs of men and women in the state broadly follow the pattern as witnessed in case of LFPRs (Annexure Table 6). Similarly, WPRs of SC/STs are higher than that of Others in Uttar Pradesh, but much lower than the corresponding figure for India (Table 7, Annexure Table 7a and 7b).

**Table 7: Workforce participation rates (15 to 59 years), 2011-12**

	Male	Female	Person
<b>Uttar Pradesh</b>			
Rural	81.60	28.14	55.28
Urban	77.05	14.50	47.17
<b>Total</b>	<b>80.44</b>	<b>24.82</b>	<b>53.25</b>
<b>India</b>			
Rural	81.98	36.97	59.71
Urban	78.38	20.90	50.56
<b>Total</b>	<b>80.76</b>	<b>31.70</b>	<b>56.67</b>

Source: NSSO unit level data, 68<sup>th</sup> round.

**Table 8: Workforce participation rates (15 to 59 years), 2011-12 by social group**

	Male	Female	Person
<b>Uttar Pradesh</b>			
SC/ST	81.82	30.78	57.54
Others	80.00	23.02	51.92
<b>Total</b>	<b>80.44</b>	<b>24.82</b>	<b>53.25</b>
<b>India</b>			
SC/ST	82.62	40.77	61.99
Others	80.08	28.34	54.70
<b>Total</b>	<b>80.76</b>	<b>31.70</b>	<b>56.67</b>

Source: Computed from NSSO unit level data, 68<sup>th</sup> round.

## 4.2 Quality of employment

With regards to the overall structure of employment, 62.2 per cent of the workforce in Uttar Pradesh was self-employed in various economic activities in 2011-12. Over one-fourth workers were engaged in casual wage work while the remaining were working in regular salaried jobs (Table 8). How does this structure of employment differ between males and females? The highest share of working women were self-employed, followed by those engaged in casual wage labour, while the least number were engaged in regular salaried employment. However, the proportion of women working as self-employed was substantially higher as compared to men – 78 per cent for women as against 58 per cent for men – in Uttar Pradesh (Table 9). As shall be seen later, these women were largely employed as unpaid household workers in agriculture. Thus, the proportionate share of women in regular as well as casual work is almost half than that of their male counterparts.

**Table 9: Nature of employment (share of workers by employment status, %)**

Type of employment	1993-94	2004-05	2011-12
<b>Uttar Pradesh</b>			
Self-employed	69.36	71.15	62.24
Regular salaried	9.34	10.98	11.71
Casual labour	21.31	17.87	26.05
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>India</b>			
Self-employed	52.9	54.91	50.72
Regular salaried	14.72	16.22	19.63
Casual labour	32.38	28.87	29.65
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Computed from NSSO unit level data, various rounds.

**Table 10: Trends in nature of employment by gender (share of workers by employment status, %)**

Year	Male			Female		
	SE	REG	CL	SE	REG	CL
<b>Uttar Pradesh</b>						
1993-94	67.47	11.32	21.21	75.27	3.12	21.61
2004-05	66.69	13.72	19.59	82.75	3.85	13.4
2011-12	57.58	13.13	29.28	78.03	6.88	15.09
<b>India</b>						
1993-94	51.29	18.57	30.14	56.23	6.74	37.03
2004-05	52.33	19.46	28.20	60.25	9.49	30.26
2011-12	48.78	21.77	29.45	55.83	13.97	30.20

Note: SE-Self-employed, REG-Regular salaried workers, CL-Casual wage labour.

Source: Computed from NSSO unit level data, various rounds.

The structure of employment varies significantly across NSSO regions in the state. In the eastern region, over 68 per cent of workers were self-employed, largely in agriculture and allied activities. Dependence on such employment is comparatively much less in the western and the southern regions. Around 30 per cent of workers were casual wage labourers in all regions except the eastern region, where about 23 per cent of workers were engaged in casual wage work. This is mainly due to overdependence of workers in this region on farm-based livelihood options. Thus, almost all regions of the state are facing the deficits of regular wage employment opportunities. The western region is relatively better off in this regard since it's a highly industrialised zone offering a scope for regular wage work to about 15 per cent of workers. The share of regular workers in other regions was about one-tenth of their workforce in 2011-12 (Table 10).

The trends in the structure of employment over the past 18 years, since 1993-94, show a slow pace of change — a decline of about seven percentage points in the share of self-employment. The corresponding increase was largely seen in casual wage work in the state. The share of regular employment hovered between 9 to 10 per cent during the entire period since 1993-94. If we look at the changes in employment in the recent period, between 2004-05 and 2011-12, the share of self-employed in Uttar Pradesh declined remarkably, by about 11 percentage points. Such shift was largely into casual wage work in the state. Contrary to this trend, the share of self-employment at the national level declined only by 4.2 percentage points, from 54.9 per cent in 2004-05 to 50.7 per cent in 2011-12. This shift has largely been in favour of regular salaried employment Table 11.

**Table 11: Region-wise trends in nature of employment available in Uttar Pradesh (share of workers by employment status, %)**

NSSO Region	SE	REG	CL	Total
<b>1993-94</b>				
Western	70.46	11.60	17.94	100
Central	68.71	11.42	19.87	100
Eastern	68.26	6.85	24.89	100
Southern	71.57	5.38	23.05	100
<b>All</b>	<b>69.36</b>	<b>9.34</b>	<b>21.31</b>	<b>100</b>
<b>2004-05</b>				
Western	68.38	14.70	16.91	100
Central	70.40	12.56	17.04	100
Eastern	73.48	7.22	19.30	100
Southern	76.43	6.14	17.43	100
<b>All</b>	<b>71.15</b>	<b>10.98</b>	<b>17.87</b>	<b>100</b>
<b>2011-12</b>				
Western	57.25	14.95	27.80	100
Central	62.38	9.69	27.92	100
Eastern	67.99	9.44	22.56	100
Southern	58.81	10.10	31.09	100
<b>All</b>	<b>62.24</b>	<b>11.71</b>	<b>26.05</b>	<b>100</b>

Note: SE-Self-employed, REG-Regular salaried jobs, CL-Casual wage labour.

Source: Computed from NSSO unit level data, various rounds.

The share of self-employed among women declined from nearly 83 per cent in 2004-05 to 78 per cent in 2011-12. The corresponding increase in their share has been seen mainly in regular employment and to some extent casual wage employment in the state. In case of men, the share of self-employment declined by almost 10 percentage points, and the shift has been entirely in favour of casual wage work in the state between 2004-05 and 2011-12 (Annexure Table 8).

Thus, the period of high growth in Uttar Pradesh witnessed a significant casualization of employment with important implications for earnings of workers employed in such jobs. Such a high pace of casualization was widespread in all regions of the state except the eastern region. In these regions the proportionate share of casual labour increased by about 8 to 10 percentage points between 1993-94 and 2011-12 (Table 11). In the eastern region the dependence on agriculture did not reduce due to lack of casual wage opportunities outside the farm sector and substantial migration of male members outside the state (World Bank, 2010). When juxtaposed with numbers at the national level, such pace of casualization is neither seen among men nor women as most of the shift from self-employment took place in favour of regular salaried jobs. This slow pace of decline in poverty in urban areas of the state indicates the lowering income of workers and increasing vulnerability due to lack of social security provisions. This deserves policy attention in order to take measures to redress the comparatively higher incidence of poverty in urban areas of the state.

A recent survey of quality of jobs in 550 enterprises in Uttar Pradesh, largely in small and medium organized sectors, indicate precariousness of employment. About one-quarter of workers were casual; another 30 per cent contractual. Thus, less than 43 per cent of industrial employment was of regular nature during the period of 2011-12 (Mehta, 2015) (Table 11). In other words, due to the very nature of casual and contractual employment, more than half of the workers do not have any written contracts and lack social security benefits. Though an overwhelming majority of enterprises reported providing social security benefits to their workers, experience shows how casual and contractual workers are bereft of any such benefits, thereby seriously eroding their income levels and leaving them vulnerable to risks of all nature including loss in income levels.

**Table 12: Quality of employment, 2010-11 (%)**

Type of worker/employment	Men	Women	Total
Casual	25.8	21.4	25.4
Contractual	29.4	43.0	30.3
Regular	43.7	33.6	42.9
Unspecified*	1.2	4.5	1.5
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>
Number	20 972	1 609	22 581

Note: \*Includes family workers, ad-hoc workers, etc.

Source: Mehta, 2015.

### 4.3 Growth in employment

Similar to the all-India trend, the growth of employment in Uttar Pradesh decelerated from 2.4 per cent per annum between 1993-94 and 2004-05 to 0.7 per cent during the next period, i.e. between 2004-05 and 2011-12. Such deceleration has been more pronounced in case of women's employment. The number of women workers substantially declined in absolute number between 2004-05 and 2011-12, registering a negative annual growth of around 2 per cent in Uttar Pradesh as well as in India. This decline in overall growth in women's employment has been largely due to their withdrawal from unpaid family labour, generally categorised as self-employment, and also from casual wage work in Uttar Pradesh. In fact, women started withdrawing from casual wage work in the state since 1993-94 and continued to 2011-12 (Table 12).

Women's employment in regular salaried jobs maintained a very high growth of about 6 per cent during 1994-2005 and 2005-12 (Table 12). Although it is a positive development, such employment is of precarious nature, mostly in informal work and menial domestic services (ILER, 2014). Women withdrew themselves mostly from self-employment as unpaid family workers. This may be due to an improvement in their family income and also due to their larger participation in education – in Uttar Pradesh and in India as a whole.

The growth scenario of male employment in Uttar Pradesh is significantly different from that of females. There has been a sharp increase in their casualization process in more recent period (2004-05 and 2011-

12). Their annual growth in casual wage work jumped from just 1.3 per cent between 1993-94 and 2004-05 to 7.7 per cent per annum between 2004-05 and 2011-12. There has been a sharp dip in regular salaried jobs for male workers in the state as their annual growth rate decelerated from 3.8 per cent between 1993-94 and 2004-05 to 1.1 per cent per annum during 2004-05 and 2011-12 (Table 12). At the national level, this trend in regular employment of male workers was more favourable than in Uttar Pradesh, with a growth acceleration from 2.6 per cent between 1993-94 and 2004-05 to about 3.3 per cent per annum between 2004-05 and 2011-12 (Table 12).

It has also been observed that employment growth varied for workers belonging to different social groups in Uttar Pradesh. While deceleration in job opportunities was witnessed by SC/ST as well as Others, the pace of deceleration was more sharp for Others. This has been perhaps due to faster withdrawal of females from workforce belonging to Other castes. While SC/STs experienced a steep decline in self-employment, such decline was not that rapid in case of Others (Table 13). In regular jobs, SC/STs experienced an accelerated pace of growth (3.7 per cent between 1993-94 and 2004-05 to 5.9 per cent per annum during 2004-05 to 2011-12), whereas Others experienced rapid deceleration in such jobs. In fact, Others suffered from overall slow growth in their employment accompanied by faster casualization of employment opportunities.

**Table 13: Growth rate (%) in employment in Uttar Pradesh and India**

Type of employment	1994 to 2005			2005 to 2012		
	Male	Female	Person	Male	Female	Person
<b>Uttar Pradesh</b>						
SE	1.88	4.65	2.68	-0.42	-2.88	-1.17
REG	3.79	5.76	3.96	1.06	6.39	1.66
CL	1.25	-0.66	0.82	7.71	-0.38	6.31
<b>Total</b>	<b>1.99</b>	<b>3.75</b>	<b>2.44</b>	<b>1.69</b>	<b>-2.06</b>	<b>0.74</b>
<b>India</b>						
SE	2.21	2.68	2.38	0.64	-2.86	-0.53
REG	2.46	5.26	2.93	3.30	3.78	3.39
CL	1.41	0.18	0.97	2.28	-1.83	0.99
<b>Total</b>	<b>2.02</b>	<b>2.04</b>	<b>2.03</b>	<b>1.66</b>	<b>-1.80</b>	<b>0.61</b>

Note: SE-Self-employed, REG-Regular salaried employment, CL-Casual wage labour.

Source: NSSO unit level data, various rounds.

**Table 14: Growth rate in employment in Uttar Pradesh and India by social group of workers**

Type of employment	1994 to 2005			2005 to 2012		
	SC/ST	Others	Total	SC/ST	Others	Total
<b>Uttar Pradesh</b>						
SE	4.07	2.34	2.66	-2.21	-0.88	-1.14
REG	3.70	4.00	3.95	5.85	0.83	1.68
CL	-0.26	2.09	0.82	4.59	7.91	6.31
<b>Total</b>	<b>2.22</b>	<b>2.50</b>	<b>2.43</b>	<b>1.14</b>	<b>0.63</b>	<b>0.76</b>

Type of employment	1994 to 2005			2005 to 2012		
	SC/ST	Others	Total	SC/ST	Others	Total
<b>India</b>						
SE	2.86	2.22	2.37	0.03	-0.69	-0.52
REG	4.81	2.47	2.93	3.17	3.45	3.39
CL	0.92	1.01	0.97	0.11	1.73	1.00
<b>Total</b>	<b>2.12</b>	<b>1.98</b>	<b>2.02</b>	<b>0.47</b>	<b>0.68</b>	<b>0.62</b>

Note: SE-Self-employed, REG-Regular salaried employment, CL-Casual wage labour.

Source: NSSO unit level data, various rounds.

This higher increase in the number of casual wage labourers indicates about the lack of regular and secure employment opportunities in the state, which has therefore accelerated the pace of male-specific migration from the state to seek livelihoods outside.

#### 4.4 Industrial structure of employment

Although there has been a significant shift of the entire Indian workforce from agriculture to the industry and services sector over the past two or three decades (Papola and Sahu, 2012), nearly half of the workers are still engaged in agriculture and allied activities. This share of agriculture in employment is comparatively more in Uttar Pradesh as compared to the Indian average (Table 14). After agriculture, the other important industrial sectors in terms of employment are manufacturing and construction, with each employing about 13.2 per cent and 13.6 per cent of the workforce respectively in 2011-12. Over one-tenth of the workers were employed in trade in Uttar Pradesh (Table 14). Though this broad structure of employment across various industrial sectors in the state is similar to the national pattern, the dependence on agriculture is relatively higher in Uttar Pradesh than the Indian average.

**Table 15: Industrial structure of employment, 2011-12 (15-59 years)**

Industry	Rural		Urban		Total	
	UP	India	UP	India	UP	India
Agriculture	61.61	63.17	7.85	6.10	49.73	46.20
Mining and quarrying	0.50	0.50	0.85	0.80	0.58	0.59
Manufacturing	8.71	8.62	28.94	23.33	13.18	13.00
Electricity, water, etc.	0.23	0.25	1.33	1.32	0.47	0.57
Construction	14.55	11.61	10.32	9.57	13.62	11.00
Trade, hotels and restaurants	6.25	6.51	23.82	23.17	10.13	11.46
Transport, storage and communication	2.93	3.14	5.96	10.25	3.60	5.26
Other services	5.22	6.19	20.92	25.46	8.69	11.92
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: NSSO unit level data, 68<sup>th</sup> round.

Workers in rural areas, understandably, are largely dependent on agriculture for their livelihood. In terms of numbers, about 62 per cent of workers in rural Uttar Pradesh were engaged in agriculture. Another 14.6 per cent were employed in the construction sector. Manufacturing and trade are next two important activities providing employment to 8.7 per cent and 6.3 per cent of rural workers in the state during 2011-12. In all, non-farm sector provides employment to about 38 per cent of the rural workforce in Uttar Pradesh (Table 14). In urban areas of the state, a highest 29 per cent of workers are employed in manufacturing. This share is relatively much higher than the national average (23.3 per cent). Other major employing sectors in the urban areas include trade and other services.

## 4.5 Structural shifts in employment

The industrial structure of employment has changed over the years in Uttar Pradesh with a steady decline in the share of agriculture. From around two-thirds in 1993-94, the share of agriculture had dropped to almost half in 2011-12. A similar pattern was noticed at the national level as well. The corresponding increase has largely been in the construction sector, whose share in employment almost tripled between 1993-94 and 2004-05 and then doubled between 2004-05 and 2011-12 (Table 15). This boom in employment in construction has been widespread in India during last two decades. The share of manufacturing and trade in employment however improved between 1993-94 and 2004-05, and remained constant between 2004-05 and 2011-12.

**Table 16: Structural shifts in employment (share of workers, %)**

Industry	1993-94	2004-05	2011-12
<b>Uttar Pradesh</b>			
Agriculture	67.19	58.66	49.73
Mining and quarrying	0.17	0.22	0.58
Manufacturing	10.05	12.97	13.18
Electricity, water, etc.	0.31	0.18	0.47
Construction	2.34	6.29	13.62
Trade, hotels and restaurants	7.50	10.50	10.13
Transport, storage and communication	2.76	3.81	3.60
Other services	9.69	7.37	8.69
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>India</b>			
Agriculture	62.63	55.09	46.20
Mining and quarrying	0.78	0.62	0.59
Manufacturing	10.72	12.43	13.00
Electricity, water, etc.	0.42	0.31	0.57
Construction	3.43	5.97	11.00
Trade, hotels and restaurants	7.70	11.00	11.46
Transport, storage and communication	3.10	4.30	5.26
Other services	11.22	10.28	11.92
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: NSSO unit level data, various rounds.



## 4.6 Industry-wise growth in employment

Growth in employment in agriculture declined in absolute terms for the first time both in Uttar Pradesh and India between 2004-05 and 2011-12. Some scholars term it as the “Lewesian Turning Point”, which is rejected by others as well. Even then, about half of Uttar Pradesh’s workforce is dependent on agriculture and allied activities. Construction emerged as a major growth driver in employment in the state, registering an annual growth of about 12 per cent since 1993-94. Though mining and quarrying and electricity sectors have a very small share in total employment, they witnessed a fairly high annual growth of about 16 per cent in the period between 2004-05 and 2011-12. Although growth of employment in sectors like trade and transport witnessed a sizeable growth of 5.6 per cent in the period between 1993-94 and 2004-05, it decelerated at a faster rate in the next period, between 2004-05 and 2011-12 (Table 16).

**Table 17: Industry-wise growth in employment (compound annual growth rates)**

Industry	Uttar Pradesh		India	
	1993-94/2004-05	2004-05/2011-12	1993-94/2004-05	2004-05/2011-12
Agriculture	1.2	-1.6	0.9	-1.9
Mining and quarrying	4.9	16.0	-0.1	0.0
Manufacturing	4.9	1.0	3.5	1.2
Electricity, water, etc.	-2.6	15.9	-0.7	9.7
Construction	12.1	12.5	7.4	9.8
Trade, hotels and restaurants	5.7	0.2	5.4	1.2
Transport, storage and Communication	5.6	-0.1	5.2	3.6
Other services	0.0	3.1	1.3	2.8
<b>Total</b>	<b>2.5</b>	<b>0.7</b>	<b>2.1</b>	<b>0.6</b>

Source: Computed from NSSO unit level data, various rounds.

Employment grew over 3 per cent per annum in other services between 2004-05 and 2011-12 after a negligible growth in the earlier period. This has been mainly due to faster growth in public sector jobs both in Uttar Pradesh and in India as a whole, mostly in banking and financial services. The manufacturing sector lagged far behind in job creation in recent years after a sizeable growth of about 5 per cent in the period between 1993-94 and 2004-05. The reasons for such slow growth (about one per cent only) in non-farm jobs, particularly in manufacturing, in the country are linked to weak demand for products by a large segment of workers dependent on informal jobs, rapid pace of capital deepening in Indian organized manufacturing sector, and sluggish growth in export of goods and services due to recessionary condition in major economies of the world (ILER, 2014).

## 4.7 Unemployment in Uttar Pradesh

The incidence of open unemployment per se is low in India. About 91.4 million persons in India were unemployed in 2011-12. The number of unemployed youth in the country increased from 56.03 million in 1993-94 to 78.8 million in 2004-05, and further to 91.4 million in 2011-12, increasing at the rate of

2.75 per cent annually during the entire reference period. The incidence of unemployment is almost three times higher (6.2 per cent) among youth as compared to adults (2.2 per cent) (Mamgain and Tiwari, 2015).

Unemployment rates are low in Uttar Pradesh as compared to the Indian average, both among men and women, and this trend persisted between 1993-94 and 2011-12. Gender-wise, the rate of unemployment is higher among males in Uttar Pradesh. This is quite opposite to the national average, showing substantially higher unemployment rate among females than males (Table 17). The low unemployment rates as well as low WPRs in the state do not necessarily mean that there are comparatively more employment opportunities in the state. In fact, due to the lack of employment opportunities, people are overwhelmingly engaged in agriculture and allied sectors, particularly in rural areas. In addition, a large portion of the population, mainly males, migrate to other states in search of jobs. The incidence of unemployment is almost four times higher in urban areas of the state, both among men and women. Unemployment tended to increase in Uttar Pradesh over the years, both among men and women as well as in the rural and urban areas. However, it has been more so in case of females, both in rural and urban areas of the state (Table 18).

**Table 18: Unemployment rate (UPSS), 15-59 years**

Year	Uttar Pradesh			India		
	Male	Female	Total	Male	Female	Total
1993-94	1.37	0.43	1.14	2.33	1.79	2.15
2004-05	1.40	0.58	1.17	2.38	2.78	2.51
2011-12	1.96	1.23	1.79	2.28	2.57	2.36

Source: NSSO unit level data, various rounds.

**Table 19: Unemployment rate (UPSS) by area, 15-59 years**

Year	Rural			Urban		
	Male	Female	Total	Male	Female	Total
1993-94	0.88	0.32	0.73	3.29	1.32	3.00
2004-05	0.81	0.28	0.65	3.27	2.89	3.21
2011-12	1.15	0.74	1.05	4.37	4.09	4.33

Source: NSSO unit level data, various rounds.

## 4.8 Mismatch between education and employability

With a mismatch between educational qualification and employability, it has been seen that those in the working age group with a graduate degree, including technical and professional educational attainments, suffer the highest incidence of unemployment in the state. In 2011-12, about 8 per cent of this group remained unemployed in Uttar Pradesh. The next group suffering the highest incidence of unemployment included secondary and then senior secondary graduates (Table 19). The rate of unemployment tends to increase with the improvement in educational levels of population. The trend holds true for the rest of the country as well. Unemployment rates were consistently lower in Uttar Pradesh as compared

to India across each educational category of labour force except in the category of graduates and above. 15 per cent of women with a graduate degree were unemployed in the state. The corresponding national average is almost half (7.28 per cent). While the rate of unemployment among male graduates was much lower than female graduates both in India and Uttar Pradesh, the unemployment rate among male graduates was significantly lower (7.26 per cent) in the state than their male counterparts in India. At the same time, the unemployment rate among female graduates in Uttar Pradesh was more than double than their counterparts in India (Table 19).

The long-run data showed a slightly increasing trend in unemployment, more so for females and that too in urban areas. Such a trend is observed across various educational levels of labour force, but more so for those with graduate degrees and among females (Table 20). Reasons for such high incidence of unemployment among young females include responsibilities of home-care economy, limited mobility due to various socio-economic constraints and prevalence of gender discrimination in recruitment and wages (ILER, 2014).

**Table 20: Unemployment rate (UPSS) 15-59 years, 2011-12**

Educational level	Uttar Pradesh			India		
	Male	Female	Total	Male	Female	Total
Illiterate	0.40	0.41	0.40	0.34	0.46	0.41
Up to primary	1.01	0.08	0.87	1.25	1.10	1.15
Middle	1.77	1.27	1.71	2.24	2.09	2.13
Secondary & senior sec	2.47	2.27	2.45	4.85	3.55	3.81
Graduate & above	7.26	14.77	8.10	11.06	7.28	7.78
<b>Total</b>	<b>1.96</b>	<b>1.23</b>	<b>1.79</b>	<b>2.03</b>	<b>2.50</b>	<b>2.36</b>

Source: NSSO unit level data, 68th round.

**Table 21: Unemployment rate (UPSS) in UP, 15-59 years**

Educational level	Male			Female		
	1993-94	2004-05	2011-12	1993-94	2004-05	2011-12
Illiterate	0.38	0.57	0.40	0.19	0.10	0.41
Up to Primary	0.69	1.36	1.01	0.69	0.93	0.08
Middle	1.81	1.65	1.77	0.90	0.43	1.27
Secondary & senior sec	3.03	1.24	2.47	1.35	0.77	2.27
Graduate & above	5.22	4.53	7.26	10.92	14.07	14.77
<b>Total</b>	<b>1.37</b>	<b>1.40</b>	<b>1.96</b>	<b>0.43</b>	<b>0.58</b>	<b>1.23</b>

Source: NSSO unit level data, various rounds.

Unemployment rates also vary across labour force belonging to different social groups. While the overall open unemployment rate among SC/STs is lower than Others both in Uttar Pradesh and in India, SC/STs with lower levels of education suffer a comparatively higher incidence of unemployment than Others. For example, in 2011-12, the SC labour force with a middle-level education suffered unemployment

almost three times more than its counterparts from Other social groups in Uttar Pradesh. Improvement in the education of SC/STs definitely helped them in getting employment in the state as revealed in Table 21. For example, the unemployment rate among SC/STs with secondary level education is 1.7 per cent as compared to 2.6 per cent among Others in the state. Unemployment rate among graduates is almost similar among SC/STs and Others. This pattern, among SC/STs in Uttar Pradesh, is quite similar in the rest of the country. The unemployment rates among SC/STs as compared to Others in India were higher for each level of education except for those who were illiterates. However, SC/ST graduates at the national-level suffer with higher (over 11 per cent) incidence of unemployment than their counterparts in Uttar Pradesh (7.3 per cent). The reasons for such situation could be two-fold. First, the proportion of graduates among SC/ST labour force in Uttar Pradesh is substantially lower as compared to national average, thereby limiting the numbers of such persons in the labour market of the state. Second, the reservation in public sector employment has helped SC/ST graduates in the state find jobs as compared to other person with lower educational levels.

**Table 22: Unemployment rate (%) (UPSS) by social group and educational level, 2011-12 (15-59 years)**

Educational level	Uttar Pradesh		India	
	SC/ST	Others	SC/ST	Others
Illiterate	0.63	0.30	0.34	0.46
Up to primary	0.93	0.84	1.25	1.10
Middle	3.19	1.14	2.24	2.09
Secondary & senior sec	1.66	2.62	4.85	3.55
Graduate & above	7.64	8.14	11.06	7.28
<b>Total</b>	<b>1.53</b>	<b>1.88</b>	<b>2.03</b>	<b>2.50</b>

Source: Computed from NSSO unit level data.

There is a high incidence of unemployment among youth in India. At the national level, about 6.23 per cent of youth were unemployed in 2011-12. Moreover, graduates with technical degrees suffer from highest incidence of unemployment – about one-fifth among them were without employment and actively searching for jobs in the labour market during 2011-12. When it comes to changes in the incidence of unemployment over the years, it increased substantially among illiterate and less educated youth during the period of 1993-94 to 2011-12, but decreased significantly in the case of those having attained higher levels of education, barring those with technical degrees in India. In fact, the unemployment rate among graduates with technical degrees jumped from 7.7 per cent in 1993-94 to 18.2 per cent in 2004-05, and increased further to nearly 21 per cent in 2011-12. The rate of decline in the incidence of unemployment has been substantive (ranging from 2 to 3 percentage points) for those with technical diplomas and high school graduates (Mamgain and Tiwari, 2015).

In brief, the overall employability, particularly of youth, remains a key challenge, which is reflected by the persistence of unemployment among youth with education levels up to or below middle school. The reduction in unemployment rates among those with educational levels up to secondary school and above, except graduates with technical degrees, largely confirms that an improvement in the education

levels of youth has led to a concomitant improvement in their employability since early 1990s. However, the prevalence of a high rate of unemployment among graduates and technical degree/diploma-holders is still a matter of concern (Mamgain and Tiwari, 2015). This also justifies the concerns of employers regarding the poor education and skill levels of youth passing out of higher and technical educational institutions. There is a disconnect between the theoretical learning and practical knowledge being imparted in educational institutions. Moreover, the mushrooming growth of technical education institutions during the last two decades has grossly undermined the quality of vocational and technical education in the country. As a result, the demand for degree level technical education offered by private institutions has significantly reduced, proved by the sizeable number of seats remaining vacant therein in recent years. Many private institutions offering degree level technical education are now also offering diploma level education. The demand for such diploma level courses is increasing as industry is getting technically qualified undergraduates at comparatively lower salaries. The emphasis of Prime Minister Narendra Modi on imparting skills among Indian youth for helping them improve their employment prospects, coupled with the current initiatives under the National Skill Development Mission, should ensure that the gap between current education levels and needs of the industry is bridged by ensuring both quality and the relevance of technical education in the country.

# 5 Wages, earnings and inequality

Approximately half of the Indian workforce is wage-employed. This is also true in the case of the workforce in Uttar Pradesh. Casual wage is a predominant form of wage employment, more so in rural areas. Nearly 40 per cent of the rural workforce was working as casual wage labour, whereas over 45 per cent of urban workers were working as regular wage/salaried workers in 2011-12 in Uttar Pradesh. It is also seen that dependence on casual wage work has been much higher in case of SCs as compared to other social groups such as ST and OBC (Papola and Mamgain, 2012). The existing segmentation in the labour markets on the lines of formal-informal, casual-regular, rural-urban, self-wage employment is again fragmented on the basis of social groups, social networks and discriminatory practices in hiring of labour (World Bank, 2011; Atwell and Madheswaran, 2010).

In this section we have made a comparative analysis of wage earnings in Uttar Pradesh based on the NSSO quinquennial data on employment and unemployment since 1993-94. This section analyses the growth patterns in wages and wage differentials among male/female and social groups separately for casual and regular wage workers by their rural-urban residences. The raw wage differential is calculated separately for male/female and SC/STs against Others. A ratio less than one signifies lower wage for a given group as compared to the reference group. The ratio close to one denotes no difference in wage earnings. Any ratio not closer to one denotes raw differences in wage earnings. The wages used for analysis here are average daily wage earnings for a wage worker at 2011-12 prices.

## 5.1 Trends in average daily wages of casual wage workers

The average daily wages of casual labourers are significantly higher for males as compared to their female counterparts, and for those residing in urban areas. This broad pattern can be seen both in Uttar Pradesh and at national level (Table 22). Average daily wages of casual wage labour were much lower in Uttar Pradesh than the national average, both for male and female labourers. In 2011-12, the average daily wage of a male casual labourer in the state was INR 135 in rural areas and INR 147 in urban areas. The average wage of female casual labourers in rural Uttar Pradesh was almost 40 per cent lower than their male counterparts. Such differences in urban areas of the state were comparatively lower by 24 per cent. The gender-differentials in daily casual wage earnings were more pronounced in urban areas at the national

level as compared to that in Uttar Pradesh as females earned a daily wage of less than 40 per cent of what their counterparts earned (Table 22).

**Table 23: Gender-wise average daily wages (INR) of casual labourers, 2011-12**

Area	Uttar Pradesh		India		Wage differential (Female/Male) (%)	
	Male	Female	Male	Female	Uttar Pradesh	India
Rural	134.8	93.7	148.1	103.3	0.69	0.70
Urban	146.5	110.9	189.1	114.1	0.76	0.60

Source: Computed from NSSO unit level data.

When it comes to SC/STs, daily wages of SC/ST casual labourers were lower than that of their counterparts from Other social groups in Uttar Pradesh as well as in India as a whole. This is more so in rural areas. On the contrary, an SC/ST casual wage worker had a higher daily wage earning than Others in urban areas of the state (Table 23).

**Table 24: Average daily wages (INR) of casual labourers by social group, 2011-12**

Area	Uttar Pradesh		India		Wage differential (SC/Others) (%)	
	SC/ST	Others	SC/ST	Others	Uttar Pradesh	India
Rural	123.8	136.5	130.6	141.6	0.91	0.92
Urban	155.0	139.0	167.2	180.1	1.11	0.93

Source: Computed from NSSO unit level data.

Industry-wise, the average daily wage of casual male labourers in agriculture in rural Uttar Pradesh was INR 116, males earned INR 145 in casual wage work in non-farm sector during the year 2011-12. Similarly, female casual wage labourers earned daily wage of about INR 87 in the agriculture sector and INR 110 in the non-agriculture sector in the state. In other words, casual workers in agricultural earned about one-fifth less than their counterparts working in non-agriculture sector. This has been true for both genders. Such differences in wage earnings across farm and non-farm sectors were comparatively lesser at national level than in Uttar Pradesh – on average in India, a casual labourer earned a daily wage that was lower by one-tenth of the wage earned by a non-farm sector labourer (Table 24).

**Table 25: Average daily wages (INR) of casual workers in agriculture, rural, 2011-12**

	Male	Female	SC/ST	Others
Uttar Pradesh	116.2	87.1	104.1	116.9
India	131.9	100.6	118.9	124.1

Source: Computed from NSSO unit level data.

The gender gap in wages reduced recently, in the period between 2004-05 and 2011-12, across all social groups. This has been partly due to the withdrawal of females from casual wage work over the years, thereby reducing their numbers in work that pay lower wages. Another reason for reduction in gender

wage gap is employment of women in MNREGS in a large proportion which ensured them equal wages for their manual casual wage work (Khera, 2009; UNDP, 2010; UN-Women, 2011).

**Table 26: Average daily wages (INR) in non-agriculture sector, 2011-12**

	Regular		Casual	
	Male	Female	Male	Female
<b>Uttar Pradesh</b>				
Rural	295.8	171.1	144.6	110.3
Urban	452.5	374.0	148.2	112.5
<b>India</b>				
Rural	321.5	206.0	169.3	113.4
Urban	462.0	368.1	191.3	117.5

Source: Computed from NSSO unit level data.

## 5.2 Wage trends for casual labourers

Wage earnings of rural casual labourers in the agriculture sector increased by over three per cent for men and over two per cent for women during the period 2004-05 to 2011-12 (Table 26). The corresponding growth of wage earnings was substantially higher in the agriculture sector at all-India level, thereby implying an increasing gap in wage earnings of agricultural labourers in Uttar Pradesh and India. The opposite has been the trend in growth rates of wages for men and women in non-farm sector between Uttar Pradesh and India, thereby reducing the gap in wage earnings in that sector (Table 26). The differential growth rates in wages of casual labourers in agriculture also show an increasing gender gap in rural Uttar Pradesh, whereas such a gap decreased at the national level. In non-agriculture activities, the gender wage gap in casual wage earnings tended to decline both in Uttar Pradesh and India with a faster growth in wages of women therein. This is a positive feature in the labour market witnessed during the recent period.

**Table 27: Annual growth rate of real wages of casual labourers, 2004-05/2011-12 (%)**

Sector	Rural			Urban		
	Male	Female	Total	Male	Female	Total
<b>Uttar Pradesh</b>						
Agriculture	3.37	2.25	3.33	3.97	6.27	5.20
Non-agriculture	4.34	5.14	4.42	3.25	5.53	3.33
<b>Total</b>	<b>4.35</b>	<b>3.15</b>	<b>4.46</b>	<b>3.25</b>	<b>5.93</b>	<b>3.47</b>
<b>India</b>						
Agriculture	5.04	6.35	5.58	5.56	6.45	6.48
Non-agriculture	3.71	4.38	3.83	4.06	3.62	4.12
<b>Total</b>	<b>5.07</b>	<b>6.26</b>	<b>5.63</b>	<b>4.21</b>	<b>4.52</b>	<b>4.48</b>

Note: Real wages calculated at 2011-12 prices.

Source: Computed from NSSO unit level data.



In urban areas of the state, wages of casual labourers in non-agriculture sector witnessed an impressive growth of over 5.5 per cent for women and over three per cent for men between 2004-05 and 2011-12, thus bringing down the gender wage gap significantly. This pattern again has been in contrast to India, where growth in wages of male casual labourers was higher than their female counterparts, thereby widening the gender gap in non-farm sector.

Growth from 2004-05 to 2011-12 in real wages of casual labourers belonging to SC/ST and Others varied significantly, both in farm and non-farm sectors in Uttar Pradesh. In rural areas of the state, growth of wages was higher for casual labourers belonging to Other social groups as compared to SCs. This has been observed both in rural farm and non-farm sector. Again this pattern was quite different from the one at the national level, where growth rates in wages for SCs and Others were not significantly different. The growth in wages of SC/ST casual labourers in urban non-agricultural sector was almost double than that of their Others counterparts in Uttar Pradesh and marginally higher in India (Table 27). In other words, availability of casual wage work in rural areas of Uttar Pradesh is a major concern in case of SC/STs, who largely depend on their manual labour thereby restricting the growth in their casual wage earnings and causing high incidence of poverty.

**Table 28: Annual growth rate of real wages of casual labourers by social group, 2004-05 to 2011-12 (%)**

Sector	Rural			Urban		
	SC/ST	Others	Total	SC/ST	Others	Total
<b>Uttar Pradesh</b>						
Agriculture	2.83	3.77	3.33	9.80	3.39	5.20
Non-agriculture	3.94	4.81	4.42	4.95	2.63	3.33
<b>Total</b>	<b>3.96</b>	<b>4.87</b>	<b>4.46</b>	<b>5.37</b>	<b>2.67</b>	<b>3.47</b>
<b>India</b>						
Agriculture	5.48	5.64	5.58	5.91	6.77	6.48
Non-agriculture	4.04	3.71	3.83	4.47	3.96	4.12
<b>Total</b>	<b>5.62</b>	<b>5.59</b>	<b>5.63</b>	<b>4.78</b>	<b>4.32</b>	<b>4.48</b>

Note: Real wages calculated at 2011-12 prices.

Source: Computed from NSSO unit level data.

### 5.3 Trends in average daily wages of regular salaried workers

Average daily wages of regular salaried workers are more than double of that of casual wage workers in rural Uttar Pradesh. In urban areas of the state, regular workers earn almost three times more than casual wage labourers in rural areas. This relative difference in wages of regular and casual wage labourers is seen in case of both the genders in the state. The magnitude of such difference in wages of regular and casual labour also exists at the national level (Table 28).

The gender differences in wage earnings are glaring in case of regular workers both in Uttar Pradesh and India. A female regular worker's average daily wage earning in rural Uttar Pradesh was almost 40 per cent lesser than their male counterparts; in urban areas this disparity is lower, at 24 per cent. Area-wise,

a regular male worker in rural areas of the state earned 40 per cent lesser than their male counterparts in urban areas. The wage difference among female regular workers across rural and urban areas was much higher than that is seen in case of males — regular female workers in rural areas earn 54 per cent lesser than their counterparts in urban areas. Such wage differentials are less pronounced at the national level.

**Table 29: Gender-wise average daily wages (INR) of regular salaried workers, 2011-12**

Area	Uttar Pradesh		India		Wage differential (Female/Male) (%)	
	Male	Female	Male	Female	Uttar Pradesh	India
Rural	293.9	171.1	318.9	197.9	0.58	0.62
Urban	491.3	374.0	468.7	367.0	0.76	0.78

Source: Computed from NSSO unit level data.

**Table 30: Average daily wages (INR) of regular salaried by their social group, 2011-12**

Area	Uttar Pradesh		India		Wage differential (SC/Others) (%)	
	SC/ST	Others	SC/ST	Others	Uttar Pradesh	India
Rural	228.9	289.7	270.0	305.1	0.79	0.88
Urban	371.5	498.0	349.9	472.6	0.75	0.74

Source: Computed from NSSO unit level data.

Wage differentials also exist among regular workers across their social belonging. SC/ST regular workers in rural areas earned 20 per cent lesser than their counterparts belonging to Other social groups. In urban areas, this difference in earnings of SC/ST and Other regular workers is relatively higher, at 25 per cent in 2011-12.

## 5.4 Growth in real wages of regular workers

Between 2004-05 and 2011-12, wages of regular salaried workers increased in Uttar Pradesh. Women working as regular salaried workers in non-farm occupations seem to benefit the least from wage rises in rural areas, and to certain extent in urban areas as well. Wage earnings of women in rural areas of the state increased marginally by 0.13 per cent per annum as compared to 3.3 per cent for their male counterparts in rural areas. The wage rise was significantly higher for both male and female regular workers in urban areas of the state, but marginally lower for females as compared to males. While comparing these trends in the annual growth in real wages of the state with all-India figures, the trend appears to be opposite for regular workers in rural India — the annual growth in wages was about 1.8 per cent for male regular workers and over 3 per cent for female workers in rural India. In urban areas growth in wages was higher for male workers in Uttar Pradesh as compared to the national average (Table 30).

When it comes to SC/STs, wage earnings of regular salaried workers belonging to these and Others social groups have grown between 2004-05 and 2011-12. Wage earnings of SC/ST workers grew at a lower

rate than their counterparts from Other castes, more so in urban areas. Wages of urban regular workers belonging to Other social groups however increased at the highest rate of over 5.2 per cent — the increase was less than 0.5 per cent for SC/ST workers between 2004-05 and 2011-12. In rural areas too, the growth in wages of SC/ST workers was much less than that of Others. Contrary to this pattern, at the national level, SC/ST workers experienced a higher growth in their wages in rural India. In urban India, the growth in wages was almost over three per cent both for SC/STs and Others (Table 31).

**Table 31: Annual growth rate of real wages of regular salaried workers by their gender, 2004-05/2011-12 (%)**

Area	Uttar Pradesh			India		
	Male	Female	Total	Male	Female	Total
Rural	3.26	0.13	2.70	1.84	3.07	1.99
Urban	4.70	3.37	4.54	3.31	3.78	3.36

Note: Real wages calculated at 2011-12 prices.

Source: Computed from NSSO unit level data.

**Table 32: Annual growth rate of real wages of regular salaried workers by their social groups, 2004-05/2011-12 (%)**

Area	Uttar Pradesh			India		
	SC/ST	Others	Total	SC/ST	Others	Total
Rural	1.88	2.98	2.69	2.49	1.83	1.99
Urban	0.49	5.19	4.54	3.26	3.41	3.36

Note: Real wages calculated at 2011-12 prices.

Source: Computed from NSSO unit level data.

Overall, wages for regular workers, particularly for males and those belonging to Other social groups, increased at a higher rate in Uttar Pradesh as compared to the national average, thereby reducing the wage disparity between the state and India over the years. While SC/STs shared the gain in the growing wages at the national level, the same could not be translated at the state level in Uttar Pradesh. The explanations for such differing wage earnings and growth therein are again examined from the perspective of educational levels of regular salaried workers in the next section.

## 5.5 Wage differentials of regular salaried workers across their educational levels

Human capital of workers play a crucial role in determining type of employment and wage earnings. Most of the workers with low educational attainments are found to be working in casual wage work or are low-paid and self-employed (NCEUS, 2009). Here we will discuss only wage differentials across educational levels in case of regular salaried jobs (Annexure Tables 9 and 10). The following important features emerge:

- (i) Wages are significantly influenced by the educational level of workers. Average daily wage earning of an illiterate regular worker is almost one-fourth of the graduate worker in rural areas and nearly one-fifth in urban areas in Uttar Pradesh (Annexure Table 8). A similar pattern is observed in India at the national level also.
- (ii) The positive and significant relationship between education and wages is also observed among all social groups and across gender.
- (iii) There is a significant rural-urban divide in average wages for the same levels of education. For example, wages of a graduate, regular salaried worker living in rural area is almost two-thirds of the earning of a graduate worker in an urban area. Workers with secondary level education in rural areas earn 30 per cent less than their counterparts in urban areas. This is mainly due to several barriers which rural workers face, such as lack of remunerative employment in rural areas and difficulty in accessing high paid jobs in urban labour markets (Annexure Table 9).
- (iv) Similarly, there are significant wage differentials between males and females for similar levels of education, both in rural and urban areas of the state. However, such wage differentials tend to reduce substantially with the improvement in the educational levels of women, more so in urban areas (Annexure Table 9).
- (v) Unlike the revealing gender-wage gaps across various educational levels, there appears less severe wage differentials between SC/ST and Others on the same parameter, both at the national and the state level. The exceptions include those with a graduate degree or higher level of education and those residing in the urban areas of the state. Wage earnings of SC/ST regular workers with a graduation degree in urban areas was about 62 per cent lesser than their counterparts from Other social groups in 2011-12. Such differentials were also observed in rural areas for workers with secondary level of education (Annexure Table 10). Since most of the regular jobs in rural areas are in public sector, the wage differentials between SC/ST and Others are obviously low. And because most of the regular jobs are in the private sector in urban areas, a significant wage differential for graduate level workers across social groups indicate the prevailing inequalities in the urban labour market. This is largely due to poor quality of education and also, to a significant extent, because of discrimination in hiring of workers and their wage fixation (Thorat and Newman, 2010).

In the non-farm sector, both in the urban and rural landscape of the state, wage earnings of regular salaried workers – both men and women – have shown an increase by their educational attainments. Wage earnings of workers with a graduate degree and above witnessed the highest annual increase of about 5 per cent between 2004-05 and 2011-12, both in rural as well as urban areas of the state. This has been faster in case of graduate women in rural areas and graduate males in urban areas (Annexure Table 11). An absolute decline in the real wages of regular workers having secondary and senior secondary education was also observed in rural areas of the state, more so for females. In urban areas, the wage earnings of workers with secondary level education grew reasonably, by over 2 per cent annually, but much less than one per cent for their male counterparts. At all-India level, the wage earnings of female graduates increased at the highest rate, but these rates were comparatively lower than that were observed in Uttar Pradesh. In brief, higher educational attainments helped regular workers to experience an increase in their incomes in Uttar Pradesh.

## 5.6 Income inequality across types of employment

High income inequality is yet another important feature of the labour market in Uttar Pradesh. Since a large majority of workers in the state are self-employed and another one-fourth work as casual wage labourers, inequality in income distribution is prominent. Over 42 per cent of workers in Uttar Pradesh fall in the lowest 20 per cent income quintile (monthly per capita expenditure or MPCE). Only 6 per cent workers could be categorised in the top 20 per cent income quintile in 2011-12. A highest 56 per cent of casual wage labourers belong to the lowest 20 per cent income quintile. Similarly, over 41 per cent of self-employed workers in agriculture belong to the lowest MPCE quintile. The situation of self-employed in non-farm sector is comparatively better than their counterparts in agriculture in terms of income distribution. The inequality in income earnings is comparatively much less among regular workers, as revealed by their distribution across various MPCE quintiles.

A distribution of workers across their monthly per capita expenditure (MPCE) quintiles clearly shows a rapid increase in inequality in Uttar Pradesh between 1993-94 and 2011-12. This can be seen in the increased concentration of workers in lower income quintiles in 2011-12 as compared to 1993-94. Such increase in concentration is seen across all types of employment, except casual wage labourers (Table 32). In other words, income distribution has become increasingly iniquitous in the state during the last two decades.

**Table 33: Distribution of workers across MPCE\* quintiles**

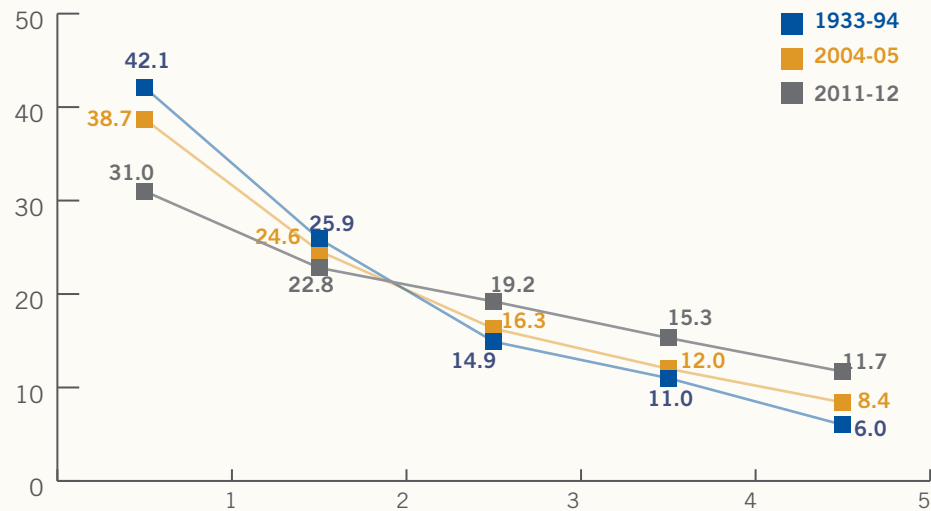
MPCE quintile	SEA	SENA	REG	CAS	ALL
<b>1993-94</b>					
1	29.31	24.41	10.86	49.53	30.97
2	24.18	22.89	13.50	23.71	22.84
3	20.07	21.06	18.93	15.51	19.18
4	15.85	17.77	24.07	7.91	15.29
5	10.60	13.88	32.65	3.34	11.72
<b>All</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>
<b>2011-12</b>					
1	40.95	36.33	20.39	55.81	42.14
2	28.12	25.63	18.74	25.43	25.95
3	16.58	15.37	20.33	10.21	14.92
4	11.26	13.85	17.45	6.18	10.97
5	3.10	8.82	23.10	2.38	6.01
<b>All</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Note: MPCE-Monthly per capita consumption expenditure class. SEA=Self-employed in agriculture, SENNA=Self-employed in non-agriculture works, REG=Regular salaried workers, CAS=Casual labourers.

Source : Computed from NSSO unit level data.

**Figure 7: Trends in income inequality in Uttar Pradesh (share of workers by MPCE quintiles), 1993-94, 2004-05 and 2011-12**

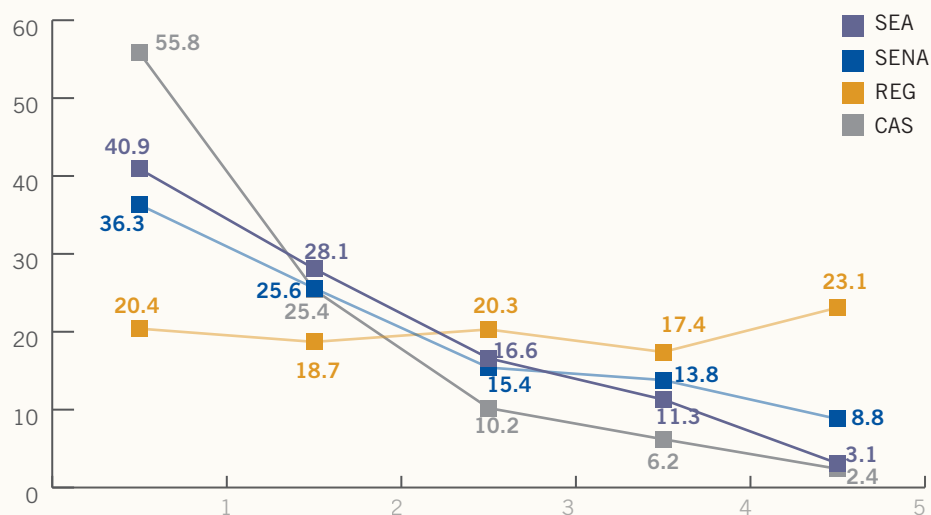
Note: MPCE-Monthly per capita consumption expenditure class.



Source: Computed from NSSO unit level data.

**Figure 8: Income inequality across types of employment in Uttar Pradesh (share of workers by MPCE quintiles), 2011-12**

Note: MPCE-Monthly per capita consumption expenditure class. SEA=Self-employed in agriculture, SENA-Self-employed in



non-agriculture, REG- Regular salaried workers, CAS-Casual labourers.

Source: Computed from NSSO unit level data.

# 6 Education and skill development

With a literacy rate of about 68 per cent in 2011, Uttar Pradesh ranks 29th among 35 states and union territories in India (GoI-RGI, 2011). The state also suffers a sizeable gender difference in its literacy rate — the female literacy rate is over 20 percentage points lower than that of males. Though such differences exist at the national level too, they are of relatively lesser magnitude (Table 33). The state also lags behind in educational attainment of its population. About 27 per cent of male and 16.4 per cent of female population in the state is educated (having secondary and above education). Similarly, over 7 per cent of males and 4.4 per cent of females possess graduate level education in the state. These educational attainments of the state are lower than that of the national average.

**Table 34: Key indicators of educational development, 2011 (7 years and above population)**

Gender	Uttar Pradesh	India
<b>Literacy rate, 2011</b>		
<b>Total</b>	<b>67.68</b>	<b>72.98</b>
Male	77.28	80.88
Female	57.18	64.63
<b>Educated (secondary and above)</b>		
<b>Total</b>	<b>21.70</b>	<b>25.18</b>
Male	26.58	29.78
Female	16.35	20.32
<b>Graduate and above</b>		
<b>Total</b>	<b>5.87</b>	<b>6.53</b>
Male	7.22	7.84
Female	4.39	5.14

Source: Population census, 2011.

There are no major differences in literacy rates across the five regions of the state, ranging between a maximum of 69.3 per cent in Bundelkhand to a lowest of 67.4 per cent in the eastern region. Literacy rate for SCs is lower at 60.9 per cent; and it is lowest at 58.7 per cent in the central region. The gap between SC and Others in literacy rates is highest in the central region of the state (Table 34).

**Table 35: Region-wise literacy rates in Uttar Pradesh, 2011**

Region	Total			Scheduled Caste		
	Person	Male	Female	Person	Male	Female
Western UP	67.47	76.55	57.2	64.07	74.67	51.93
Central UP	68.31	76.32	59.33	58.68	68.44	47.69
Bundelkhand	69.26	79.9	57.09	62.61	74.52	48.92
Eastern UP	67.4	78.11	56.23	59.27	70.87	47.07
UP	67.68	77.28	57.18	60.89	71.77	48.87

Source: Population Census, Primary Census Abstract, Uttar Pradesh, 2011.

NSSO data shows about one-fourth of youth population in Uttar Pradesh as illiterate in 2011-12 as compared to the national average of 18 per cent. In fact, more recently the NSSO 71st round shows over one-tenth of the youth population, including one-fifth of female youth never got enrolled during their lifetime in the state. These ratios are higher than the corresponding figures of 7.1 per cent for males and 11.9 per cent for females in India. The proportion of youth with formal technical education is quite low in India in comparison to several developing countries (NCEUS, 2009); this ratio is even lower in Uttar Pradesh. In 2011-12, the proportion of youth with formal technical education was only 1.43 per cent, which is almost three times lesser than the national proportion of 3.46 per cent (Table 35). Similarly in the age-group of 15-59 years, the proportion of persons with technical education in the state is quite low and much lesser than the national average (Table 35). Studies have clearly demonstrated a significant relationship of education, particularly of technical education, in improving the productivity of workers. Viewed from this perspective, Uttar Pradesh faces a major challenge in skill development of its population, particularly those in the age-group of 18 to 24 years. Reasons for such lower proportion of technically trained persons in Uttar Pradesh can be traced to the historically inadequate infrastructure for technical and vocational education.

**Table 36: Percentage of youth (15-29 years) with technical education, 2011-12**

Educational level	Uttar Pradesh	All India
Technical Degree-holder	0.11	0.54
Technical Diploma-holder below the Degree Level	0.93	2.13
Technical Diploma-holder equivalent to a Degree	0.39	0.79
<b>Total technical</b>	<b>1.43</b>	<b>3.46</b>

Source: Calculated from unit level records of NSSO, 68th round.

**Table 37: Percentage of persons with technical education (15-59 years), 2011-12**

Educational level	Uttar Pradesh	All India
Technical Degree-holder	0.20	0.48
Technical Diploma-holder below the Degree Level	0.70	1.64
Technical Diploma-holder equivalent to a Degree	0.52	0.74
<b>Total technical</b>	<b>1.41</b>	<b>2.86</b>

Source: Calculated from unit level records of NSSO, 68th round.



## 6.1 Cost of education and skill training

The average cost of education – general, technical, or professional - for a student in Uttar Pradesh is lower than the average cost in India (Table 37). Nonetheless, the proportion of students receiving free education in the state is lower at all levels (of education) compared to several other states in India (Table 38). At primary and upper primary level, all students are expected to receive free education through government schooling. At the secondary and senior secondary level, only 7.4 per cent of students in Uttar Pradesh are receiving free education compared to two-thirds of the same in Tamil Nadu and about half in Bihar. It's a similar case at the graduate level. These figures show that due to the substantive cost of education in the private sector, poor households withdraw their wards from continuing higher education. This adversely affects the overall human capital formation in states like Uttar Pradesh.

## 6.2 Challenge of grossly inadequate skill development infrastructure

Uttar Pradesh has about 1,500 ITIs and ITCs with an annual intake of approximately 0.18 million students. There are about 330 polytechnics, both government and private, with an annual intake of about 97,000 students. In addition, there are nearly 700 degree-level institutions, mostly in private sector, with an annual intake of 200,000 in technical courses (engineering and management). Thus, formal vocational education and training infrastructure have a skill development opportunity for four to five lakh youth in the age-group of 18 to 23 years. Keeping in view the size of the state and its youth population (age-group 15-24 years) of about 41 million, the existing training capacities are still inadequate (GoUP, 2013).

**Table 38: Average expenditure per student in current academic session (INR), 2014**

	General	Technical & professional	Vocational
Uttar Pradesh	5074	58567	28073
India	6788	62841	27676

Source: NSSO 71st round, 2014.

**Table 39: Percentage of students receiving free education, 2014**

Select states	Primary	Upper primary	Secondary and Sr. secondary	Graduate and above
Uttar Pradesh	46.0	42.7	7.4	3.8
Bihar	81.3	81.0	50.1	26.5
Gujarat	63.5	63.5	30.4	8.3
Tamil Nadu	47.4	59.5	64.2	10.5
Kerala	53.4	63.7	46.2	12.4
<b>India</b>	<b>59.9</b>	<b>60.4</b>	<b>34.5</b>	<b>9.7</b>

Source: NSSO 71st round, 2014.

The existing skill development system in the state is also underutilized with approximately 3 lakh students enrolled in ITIs and ITCs during 2012. According to the UP Skill Development Policy document, nearly 60 per cent intake capacity in private sector ITCs, polytechnic, engineering, and professional colleges

remained unutilized. The major reasons for such underutilization are poor quality education, obsolete trades, outdated syllabi, skill mismatches, high incidence of unemployment among youth and slow growth in job opportunities in the state in recent years. According to one estimate, less than 30 per cent of graduates from ITIs and polytechnics were able to get gainful employment after completion of their course (GoUP, 2013). At the same time, there is a huge demand for formal vocational and technical education in the state. More than 5.5 lakh candidates compete for 45,000 seats in ITIs almost every year. Similarly, about 5.75 lakh students compete for about 95,000 seats in polytechnics (GoUP, 2013).

The skill development programmes under the Uttar Pradesh Skill Development Mission (UPSDM) are picking up pace. A total of 193,564 persons were trained between February 2014 and March 2016 under the UP Skill Development Mission. On the other hand, UPSDM had fixed a target to train 2.42 million youth in vocational trades between 2013-14 and 2016-17. Given the skill development needs and inadequate available infrastructure in the state, achieving such targets will need to remain a key priority in the coming years.

**Table 40: Status of skill development under UPSDM**

Particulars	Number
Total registration on UP Government portal	46,78,807
Enrolment	2,81,518
Trained	1,93,564
Approved training centres	1,936
Sectors	39
Course	297

Source: UPSDM, April 2016.

### 6.3 Skill gaps

The National Skill Development Corporation (NSDC), in its study in Uttar Pradesh, has identified 19 high growth sectors with income and employment potential. NSDC estimates that 11 million jobs will be generated in the state between 2012 and 2022. Maximum jobs are estimated to be generated in sectors such as 'building, construction and real estate', 'organised retail', and 'banking, financial services and insurance'. These sectors would require a variety of skills, ranging from highly-skilled to semi-skilled persons. In the span of next ten years, the NSDC estimates show maximum demand for skilled workers at 37 per cent of the total incremental demand. This is expected to be followed by semi-skilled workers at 35 per cent, and minimally skilled workers at 28 per cent (NSDC, p.54). However, the state skill development initiatives at the current pace is likely to fall short grossly for meeting such a huge demand of skilled persons in the state.

Apart from such quantitative dimensions of the skill development challenge, much would depend on its quality. Employers find a large number of job-seekers unemployable due to insufficient exposure of the latter to practical aspects of education. Most of the employers look for employees who have sound practical as well as theoretical understanding of processes and techniques and possess good communication

and interpersonal skills (Mamgain, 2017). The existing vocational and skill training system in the country need to expose students to new techniques and new trades that are in demand. The recent emphasis on apprenticeship training under the Apprenticeship Training Act is a step in the right direction that needs to be scaled up on a large scale. However, such initiatives in Uttar Pradesh are yet to pick up on a large scale.

## 6.4 Quality of skill training

In Uttar Pradesh, vocational and technical education historically could not keep pace with the requirements of the industry due to lack of such training institutions, rigid and obsolete courses/trades, shortage of trainers and lack of practical and on-the-job skill training. This seriously affects the employability of graduates in those fields in the labour market. Although hard data is not available – which in itself is a serious shortcoming – anecdotal evidence suggests poor placement as merely 30 per cent of graduates of these institutions could find proper job placements (GoUP, 2013, p. 18).

## 7 Demand side concerns of labour market

This section briefly analyses the industrial development in Uttar Pradesh with a purpose to show how regional inequalities in industrial development, arising out of various factors, adversely affect the growth in employment opportunities. It will also address the question of vocational training and skill shortages from the perspective of employers.

Before commenting on the demand-side concerns of employment, it would be useful to look at the enterprise development in Uttar Pradesh. According to the latest Sixth Economic Census, there were 6.7 million enterprises in Uttar Pradesh, accounting for about 11.5 per cent of total enterprises in the country in 2012-13. These enterprises provided employment to 13.75 million persons in the state. Over 60 per cent of enterprises were located in rural areas of the state; the share of rural areas in total employment stood at about 43.7 per cent. At the all-India level, this share has been much higher, at 48.1 per cent (GoUP, 2015, EC).

Over one-third of enterprises in rural Uttar Pradesh and about half of those in the urban areas operate from fixed premises. Another 15 per cent operate without any fixed premises. 44.5 per cent of enterprises operate from inside households – these are largely informal enterprises. Thus, the proportion of enterprises operating from homes is comparatively higher in Uttar Pradesh than the Indian average (38.4 per cent). However, given the population size of Uttar Pradesh, the all-India share of the state in enterprises is quite small, at about 12 per cent (Table 40).

The number of enterprises and employment generated therein witnessed a phenomenal growth between 2005 and 2012-13 in Uttar Pradesh as compared to India (Table 41). This high growth has been largely due to growth witnessed in rural Uttar Pradesh. However, the figures for such high growth in rural areas are not corroborated by NSSO data on self-employment. In fact, NSSO data show an absolute decline in the number of self-employed persons in the state between 2004-05 and 2011-12 (Table 36). The jump in high growth may be partly explained in the creation of additional 2.43 lakh micro and small registered units in the state during last few years (between 2007-08 and 2013-14), which have been financed by the state government through its network of district industries centres (Department of MSME, GoUP, 2015).

**Table 41: Number\* of enterprises and employment in Uttar Pradesh and India, 2012-13**

	Uttar Pradesh	India	% share of UP in India
<b>Enterprise</b>			
Rural	41 60 325	3 50 22 735	11.9
Urban	25 40 411	2 34 47 361	10.8
Both	67 00 736	5 84 70 096	11.5
<b>Employment</b>			
Rural	77 42 525	6 62 88 995	11.7
Urban	60 08 341	6 14 19 081	9.8
Both	1 37 50 866	12 77 08 076	10.8

Note: Excluding crop production, plantation, public administration, defence & compulsory social security services activities.

Source: Sixth Economic Census, 2012-13, MoSPI, New Delhi.

The average size of employment in enterprises is about 1.8 persons in the state. About one-fourth of workers in these enterprises in rural areas are hired workers in the state. In urban enterprises, the proportion of hired workers is almost double. The opportunities for hired workers are comparatively less in Uttar Pradesh than the national average (Table 42). Similarly, women constitute about one-fifth of the total workers in enterprises in Uttar Pradesh — their share being comparatively higher, at 26 per cent, in India.

**Table 42: Average annual growth of establishments and employment between 5th (2005) and 6th Economic Census (2012-13) (%)**

Area	Uttar Pradesh	India
<b>Enterprise</b>		
Rural	10.9	4.91
Urban	5.01	5.70
Both	8.24	5.22
<b>Employment</b>		
Rural	10.8	3.95
Urban	7.15	4.68
Both	9.41	4.29

Source: Sixth Economic Census, 2012-13, MoSPI, New Delhi.

**Table 43: Percentage share of hired and women workers among total workers, 2013**

	Gender-wise percentage of hired workers@ in total workers			% women workers in total workers
	Male	Female	Total	
<b>Rural</b>				
UP	24.53	23.59	24.30	25.02
India	35.96	31.78	34.67	30.90
<b>Urban</b>				
UP	47.22	50.30	47.61	12.66
India	57.06	59.71	57.59	19.80

	Gender-wise percentage of hired workers@ in total workers			% women workers in total workers
	Male	Female	Total	
<b>All</b>				
UP	35.30	31.12	34.48	19.62
India	46.89	42.19	45.69	25.56

Note: @ Hired workers refers to those workers who are paid wages/salary by the enterprise.

Source: Sixth Economic Census, 2012-13, MoSPI, New Delhi.

**Table 44: Regional distribution of factories**

Region	Registered factories (%)	
	2000-01	2008-09
Western	67.27	68.11
Central	19.71	18.86
Bundelkhand	1.69	1.32
Eastern	11.33	11.72
Uttar Pradesh	100	100

Source: District-wise development indicators, Economics & Statistics Division, GoUP, 2012.

Industrial development in Uttar Pradesh is highly skewed. It is concentrated in the western region of the state, accounting for over 68 per cent of industries (Table 43). The next important region for industrial activity is the central region, and the least is Bundelkhand. The western region remains on the top and the Bundelkhand at the bottom in terms of number of industries and employment per lakh population (Table 44). This locational disparity in industrial development in the state adversely affects the employment prospects for the labour force residing in industrially backward regions.

**Table 45: Regional distribution in factories and workers**

Region	Registered factories per lakh population (No.)		Employees per lakh population (No.)	
	2000-01	2008-09	2000-01	2008-09
Western	12.22	9.69	389	729
Central	7.24	5.43	219	313
Bundelkhand	2.27	1.43	71	73
Eastern	1.89	1.53	104	99
Uttar Pradesh	6.68	5.25	228	369

Source: District-wise development indicators, Economics & Statistics Division, GoUP, 2012.

In brief, enterprises in Uttar Pradesh are predominantly rural-based with lesser opportunities for wage employment and women employment as compared to several other states in India. Per worker productivity in micro and small enterprises in the state is significantly lower, mainly due to a lack of capital and infrastructure (Mamgain, 2016). Per worker fixed capital in Uttar Pradesh in registered MSMEs was substantially lower in comparison to many states (Table 45). In this, availability of fixed capital was lowest for OBCs, followed by SCs. The latest Annual Survey of Industries (ASI) data for registered manufacturing industries for the year 2013-14 show per unit invested capital in the state at INR 11.72 million for its

14,463 units. This figure is considerably lower than the national average of INR 15.07 million. Similarly, per worker annual wages in Uttar Pradesh was lower, at INR 113,500 than the Indian average of INR 121,100 during the year 2013-14 (CSO, 2016).

**Table 46: Per worker market value of fixed capital (INR '000s) during 2006-07**

State	SC	OBC	Others	Total
Uttar Pradesh	663	261	2 781	1 787
Gujarat	4 974	5 085	6 785	6 608
Tamil Nadu	2 663	1 598	2 612	1 842
Maharashtra	3 860	1 921	7 031	6 264
Bihar	346	777	835	726
West Bengal	1 018	288	3 083	2 624
<b>India</b>	<b>1 423</b>	<b>1 095</b>	<b>4 390</b>	<b>2 863</b>

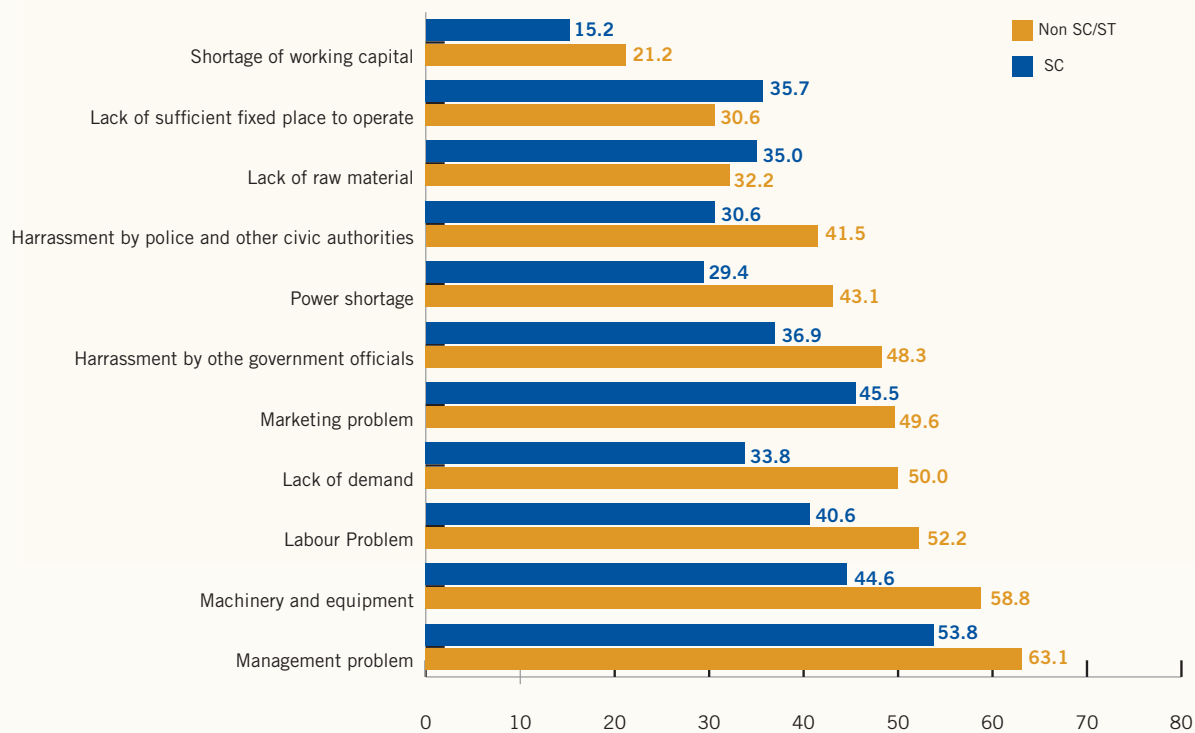
Source: Calculated from fourth MSME Census, 2006-07, registered sector.

## 7.1 Understanding slow growth in non-farm employment

While large industries tended to deepen their capital intensity by using labour-replacing technologies, micro and small enterprises — considered to be the growth engines — suffered due to lack of capital and technology. As is well-known, these enterprises make significant contribution to income and employment generation. However, these enterprises are facing several difficulties in their operation and expansion, thereby hindering the prospects of employment and growth. A recent study of micro and small enterprises in Uttar Pradesh (Mamgain, 2016) shows how entrepreneurs face a variety of problems. The most severe problems include lack of working capital, insufficient space to efficiently operate the enterprise, inadequate raw material, power shortages, and shortage of skilled labour. Such problems are common to entrepreneurs belonging to SC and Other social groups in Uttar Pradesh, but the intensity is comparatively more severe in case of the former group of entrepreneurs (Figure 9).

A major issue that needs to be addressed is the extremely low participation of women in labour force in India, and more so in Uttar Pradesh. Studies show how the present per capita income in India can increase by 33 per cent by closing the gender gap in economic participation. These gains would come from two sources — about two-thirds from closing the gap in their participation in labour market and the remaining from eliminating barriers to entrepreneurship (Cuberes and Teigner, 2015). India ranks 70th out of 77 countries surveyed in Female Entrepreneurship Index in 2015, suggesting ample room for improvement. Bringing more women into the labour market requires more investment in girls' education, better child care options and their safety (World Bank in India, March 2016, p.9).

For promoting employment through industrial development, the government of Uttar Pradesh has several policies and programmes, such as concessional finance, subsidies on use of infrastructure, mainly power and transportation of goods and materials, and R&D among others. To further assist SMEs, sector-specific promotional policies for enterprise development are needed.

**Figure 9: Major or severe difficulties in operating business enterprises in UP, 2015**

Source: Mamgain (2016), Private enterprise development among Scheduled Castes in Uttar Pradesh (mimeo).



# 8 Conclusion

While analysing the nature and trends in labour and employment in Uttar Pradesh, this paper focuses exclusively on gender, social groups and regions, bringing out several interesting features of the labour market in the state. It shows how, despite a reasonably higher annual growth of over six per cent during last decade, per capita income of Uttar Pradesh is half of the national average, and this gap has significantly widened over the years. This means that the state has to make aggressive efforts to catch up with other fast growing regions in the country. The fast double-digit growth experienced by sectors such as transport, communication, banking and financial services, real estate and other services need to be translated into other sectors. The high growth definitely helped the state in reducing its poverty, particularly in rural areas, but did less to reduce the incidence of poverty among its urban population. The highest incidence of poverty in the central region and the lowest in the western region of the state speaks of the vast regional disparities in development. Poverty is widespread among casual labour households, Scheduled Castes and those engaged in non-farm self-employment. The challenge of poverty reduction in the state, particularly in urban areas, still remains formidable due to inadequate employment opportunities and social security programmes.

The nature, form and trends in labour market in the state broadly follow the pattern as seen at the national level. The participation of women in the labour force, particularly in rural areas and those belonging to SC/ST social groups, tended to decline more rapidly in recent years. This is largely attributed to rising enrolment/retention of women in secondary and tertiary education. The decline is also partly caused by rising household income and lack of remunerative employment opportunities near their homes, leading women to withdraw from the labour market. While the labour force participation rates of women vary significantly across various regions and social groups, the same do not vary much for men. Agriculture remains a major employer of the labour force and so does self-employment.

Uttar Pradesh has, over the years, experienced a significant shift from agriculture to non-farm employment. Construction has emerged a major employer after agriculture. However, most of the additional jobs created in the non-farm sector were of casual labour. Such high pace of casualization was widespread in all regions of the state except the eastern region. In the eastern region the dependence on agriculture

did not reduce due to lack of casual wage opportunities outside the farm sector and large out-of-state migration of males. The growth scenario of male employment in Uttar Pradesh is significantly different from females. Over recent years, there has been a sharp increase in male workers' casualization process. Gender-wise, growth rate of men in regular salaried jobs has dipped over the years, but the same increased sharply for women in the state. Access to such regular jobs for women has been greatly facilitated by improvement in their educational levels. However, their share as well as number in regular employment is yet to catch up with their male counterparts.

The state is also facing a high rate of unemployment among its graduates with technical education. The unemployment rate among female graduates is more than double in Uttar Pradesh in the rest of the country. The high rate of unemployment among graduates and technical degree/diploma-holders is still a matter of concern, which justifies the views of employers regarding the poor education and skill levels of youth passing out of higher and technical educational institutions.

The average daily wage of a casual wage labourer is much lower in Uttar Pradesh than the national average — both for males as well as females. The gender gap in wages reduced during the recent years between males and females and across all social groups. However, such gaps still remain significant. The reducing gender gap in wages of men and women could be partly due to the withdrawal of females from casual wage work over the years, thus limiting their supply to such works at lower wages. However, there exists a significant gap in average daily wages of casual labourers belonging to SC/ST and Other social groups in rural areas. In urban areas such gaps hardly exist, suggesting less severity of discrimination in wages in the labour market. These questions, however, need in-depth analysis.

Average daily wages of regular salaried workers are more than double of that of casual wage workers in rural Uttar Pradesh. The gender differences in wage earnings are significant in case of regular workers, both in Uttar Pradesh and India. Women working as regular salaried workers in non-farm occupations in the state seem to have least benefited from wage rises in rural areas and to a certain extent, in urban areas as well. While SC/STs shared the gain in the growing wages at a national level, the same could not be translated at the state level in Uttar Pradesh. In brief, high economic growth perpetuated income inequality in the state as reflected in the increasing share of workers at lowest income quintile.

Much of the problems of the labour force and its employability in Uttar Pradesh pertains to its low levels of education and poor skill training. The challenge of developing skill training for its population, particularly those in the age-group of 18 to 24 years, will remain to be a critical priority in the coming years. The low proportion of technically trained persons in Uttar Pradesh can be traced to the historically inadequate infrastructure for technical and vocational education in the state. The skill development programmes under the Uttar Pradesh Skill Development Mission (UPSDM) are accelerating and will have a major impact in the years to come in addressing these challenges.

On the demand side, manufacturing is being visualised as a major driver of economic growth and employment generation. Industrial development in Uttar Pradesh has been highly skewed, with the highest concentration in the western region. MSMEs are face several problems affecting their performance, including lack of working capital, insufficient space to efficiently operate the enterprise, inadequate raw

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materials, power shortages, and shortage of skilled labour. Further efforts are needed to unleash the entrepreneurial spirit and business activity in all parts of the state.

To sum up, Uttar Pradesh has enormous potential to shift to a development path characterized by remunerative jobs for its increasing labour force, both within farm and non-farm sectors. This will involve overcoming gender and social gaps in employment opportunities and earnings, while reducing the pace of distress migration. The success of a future inclusive growth agenda for Uttar Pradesh would depend on its strategy of promoting investment in employment potential sectors and ensuring equal participation of its people belonging to various regions, gender and social groups.



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# Annexure tables

## Annexure table 1

### Industry-wise compound annual growth rate in GSDP in Uttar Pradesh at 2004-05 constant prices

S. No.	Sector	2004-05/2014-15
1	Agriculture	3.24
2	Forestry & logging	2.18
3	Fishing	5.66
	<b>Agriculture &amp; allied activities</b>	3.19
4	Mining & quarrying	1.50
5	Manufacturing	5.00
5.1	Registered	5.60
5.2	Unregistered	4.30
6	Construction	6.50
7	Electricity, gas and water supply	5.06
	<b>Industry</b>	5.37
8	Transport, storage & communication	10.77
8.1	Railways	9.87
8.2	Transport by other means	10.15
8.3	Storage	3.80
8.4	Communication	13.40
9	Trade, hotels and restaurants	5.42
10	Banking & insurance	13.85
11	Real estate, ownership of dwellings and business services	10.33
12	Public administration	6.39
13	Other services	8.09
	<b>Services</b>	8.76
14	Gross state domestic product	6.56

Source: Calculated from CSO, MoSPI data on GSDP.

## Annexure table 2

### Percentage of poor in rural areas by occupational category of their households

Occupational category	2011/12			2004/05			% Change		
	SC/ST	Others	ALL	SC/ST	Others	ALL	SC/ST	Others	ALL
	<b>Uttar Pradesh</b>								
SEA	33.94	20.02	22.37	59.12	45.20	47.57	25.18	25.17	25.19
SENA	32.03	23.71	25.83	67.57	52.38	56.22	35.54	28.67	30.40
REG	15.03	13.58	14.02						
CLAG	50.61	39.64	45.58	78.44	74.10	76.18	27.83	34.46	30.60
CLNAG	45.76	47.65	46.79	74.79	66.25	70.59	29.03	18.59	23.80

Occupational category	2011/12			2004/05			% Change		
	SC/ST	Others	ALL	SC/ST	Others	ALL	SC/ST	Others	ALL
Others	33.82	19.31	22.26	44.15	33.88	35.73	10.33	14.57	13.46
Rural UP	39.06	25.11	28.99	67.54	49.69	54.31	28.47	24.58	25.31
<b>All India</b>									
SEA	40.83	20.51	25.53	50.80	31.74	36.05	9.97	11.22	10.52
SENA	29.74	18.83	21.37	51.47	34.41	38.48	21.73	15.59	17.11
REG	17.12	10.10	12.17						
CLAG	50.00	38.77	44.05	69.56	58.73	64.03	19.56	19.95	19.97
CLNAG	39.08	28.54	33.29	59.91	43.02	50.18	20.83	14.48	16.89
Others	29.98	14.28	17.95	29.27	21.20	23.09	-0.71	6.92	5.15
Rural India	39.64	22.69	28.10	58.02	37.21	43.76	18.38	14.51	15.66

Note: SEA-Self-employed in agriculture, SENA-Self-employed in non-agriculture, REG-Regular employment, CALG-Casual labour in agriculture, CLNAG-Casual labour non-agriculture, Others-Other than mentioned here (which have no single major source of income). In 2004-05, REG was included in Others. Poverty is calculated by using Tendulkar poverty line.

Source: Calculated from unit record data of NSSO rounds on consumption expenditure.

### Annexure table 3

#### Percentage of poor in urban areas by occupational category of their households

Occupational category	2011/12			2004/05			% Change		
	SC/ST	Others	ALL	SC/ST	Others	ALL	SC/ST	Others	ALL
<b>Uttar Pradesh</b>									
SE	53.06	39.17	40.28	66.95	44.30	46.77	13.89	5.14	6.49
REG	37.93	19.05	22.57	32.65	24.88	26.18	-5.28	5.83	3.60
CL	64.65	59.76	61.24	81.36	73.51	75.62	16.71	13.75	14.38
Others	52.65	20.58	23.12	17.54	36.70	34.88	-35.11	16.13	11.76
Urban UP	50.83	34.98	37.24	54.46	39.98	42.03	3.63	5.01	4.79
<b>All India</b>									
SE	31.67	17.58	19.37	48.10	26.03	28.93	16.43	8.45	9.56
REG	16.35	7.12	8.91	22.78	14.16	15.90	6.43	7.04	6.99
CL	45.99	32.69	36.92	67.94	54.64	59.37	21.96	21.95	22.45
Others	19.38	7.75	9.55	24.31	15.49	16.67	4.93	7.75	7.12
Urban India	27.93	14.56	16.98	40.69	23.44	26.64	12.76	8.88	9.66

Note: SEA-Self-employed, REG-Regular employment, CL-Casual labour, Others-Other than mentioned here (which have no single major source of income). Poverty is calculated by using Tendulkar poverty line.

Source: Calculated from unit record data of NSSO rounds on consumption expenditure.



**Annexure table 4****Region-wise incidence of poverty in Uttar Pradesh, 2004-05 and 2011-12**

Region	2011-12			2004-05			2005-2012		
	SC/ST	Others	ALL	SC/ST	Others	ALL	SC/ST	Others	ALL
<b>All</b>									
Western	29.53	21.39	23.42	59.05	41.36	44.86	29.52	19.97	21.45
Central	49.67	36.75	40.02	57.14	41.55	46.24	7.48	4.81	6.22
Eastern	47.22	30.07	34.24	76.74	56.54	61.39	29.51	26.47	27.15
Bundelkhand	45.68	25.76	31.56	68.87	49.63	54.39	23.19	23.86	22.82
All UP	40.50	27.51	30.75	66.08	47.66	52.00	25.58	20.15	21.25
<b>Rural</b>									
Western	26.22	16.85	19.46	58.59	41.54	45.48	32.37	24.69	26.02
Central	49.30	37.29	41.06	60.35	46.70	51.30	11.05	9.41	10.24
Eastern	45.63	28.15	32.72	77.42	57.86	62.81	31.79	29.71	30.09
Bundelkhand	44.55	23.04	29.86	75.78	47.48	53.90	31.23	24.45	24.04
Rural UP	39.06	25.11	28.99	67.65	49.74	54.38	28.58	24.63	25.38
<b>Urban</b>									
Western	43.87	31.91	33.95	61.72	40.93	43.18	17.85	9.03	9.23
Central	53.44	35.60	37.11	37.55	27.80	29.57	-15.89	-7.81	-7.54
Eastern	70.95	41.05	44.62	65.88	47.32	49.74	-5.07	6.27	5.12
Bundelkhand	51.70	33.75	37.38	51.20	58.48	56.14	-0.50	24.73	18.76
Urban UP	50.83	34.98	37.24	54.33	40.34	42.31	3.51	5.36	5.07

Source: Calculated from unit record data of NSSO rounds on consumption expenditure.

**Annexure table 4a****Trends in labour force participation rates (15 to 59 years) in Uttar Pradesh**

Area	Male	Female	Person
<b>1993-94</b>			
Rural	90.27	33.89	63.05
Urban	81.76	16.74	51.88
<b>Total</b>	<b>88.42</b>	<b>30.41</b>	<b>60.7</b>
<b>2004-05</b>			
Rural	87.10	40.58	64.41
Urban	82.92	17.86	53.25
<b>Total</b>	<b>86.06</b>	<b>35.45</b>	<b>61.76</b>
<b>2011-12</b>			
Rural	82.55	28.35	55.86
Urban	80.58	15.12	49.31
<b>Total</b>	<b>82.05</b>	<b>25.13</b>	<b>54.23</b>

Source: NSSO unit level data, various rounds.

**Annexure Table 4b****Trends in labour force participation rates (15 to 59 years) in India**

Area	Male	Female	Person
<b>1993-94</b>			
Rural	89.7	51.61	70.91
Urban	83.16	24.89	55.82
<b>Total</b>	<b>87.81</b>	<b>44.43</b>	<b>66.7</b>
<b>2004-05</b>			
Rural	88.6	52.12	70.54
Urban	83.38	26.17	56.37
Total	86.91	44.23	66.09
<b>2011-12</b>			
Rural	83.52	37.57	60.79
Urban	80.94	22.22	52.53
<b>Total</b>	<b>82.65</b>	<b>32.53</b>	<b>58.04</b>

Source: NSSO unit level data, various rounds.

**Annexure Table 5a****Labour force participation rates (15 to 59 years) by social groups - Uttar Pradesh**

Gender	SC/ST	Others	All
<b>1993-94</b>			
Male	92.46	87.27	88.42
Female	45.15	26.16	30.41
Person	69.64	58.15	60.7
<b>1993-94</b>			
Male	89.6	85.05	86.07
Female	46.58	32.21	35.44
Person	68.9	59.7	61.76
<b>2011-12</b>			
Male	83.24	81.66	82.05
Female	31.09	23.33	25.13
Person	58.43	52.91	54.23

Source: NSSO unit level data, various rounds.

## Annexure Table 5b

### Labour force participation rates (15 to 59 years) by social groups - India

Gender	SC/ST	Others	All
<b>1993-94</b>			
Male	90.83	86.76	87.81
Female	58.37	39.49	44.43
Person	74.97	63.8	66.7
<b>1993-94</b>			
Male	88.87	86.18	86.91
Female	55.38	40.13	44.24
Person	72.56	63.71	66.1
<b>2011-12</b>			
Male	84.46	81.99	82.65
Female	41.48	29.22	32.53
Person	63.27	56.1	58.04

Source: NSSO unit level data, various rounds.

## Annexure Table 6a

### Trends in work force participation rates (15 to 59 years) in Uttar Pradesh

Area	Male	Female	Person
<b>1993-94</b>			
Rural	89.48	33.78	62.59
Urban	79.07	16.52	50.33
<b>Total</b>	<b>87.21</b>	<b>30.28</b>	<b>60</b>
<b>2004-05</b>			
Rural	86.39	40.47	63.99
Urban	80.21	17.34	51.54
Total	84.85	35.25	61.03
<b>2011-12</b>			
Rural	81.6	28.14	55.28
Urban	77.05	14.5	47.17
Total	80.44	24.82	53.25

Source: NSSO unit level data, various rounds.

**Annexure Table 6b****Trends in work force participation rates (15 to 59 years) in India**

Area	Male	Female	Person
<b>1993-94</b>			
Rural	88.27	51.15	69.96
Urban	79.60	23.17	53.12
<b>Total</b>	<b>85.77</b>	<b>43.63</b>	<b>65.27</b>
<b>2004-05</b>			
Rural	87.11	51.20	69.34
Urban	80.10	24.22	53.71
<b>Total</b>	<b>84.84</b>	<b>43.00</b>	<b>64.43</b>
<b>2011-12</b>			
Rural	81.98	36.97	59.71
Urban	78.38	20.90	50.56
<b>Total</b>	<b>80.76</b>	<b>31.70</b>	<b>56.67</b>

Source: NSSO unit level data, various rounds.

**Annexure Table 7a****Work force participation rates (15 to 59 years) by social groups - Uttar Pradesh**

Gender	SC/ST	Others	All
<b>1993-94</b>			
Male	91.73	85.93	87.21
Female	45.07	26.02	30.28
Person	69.22	57.38	60.00
<b>2004-05</b>			
Male	88.27	83.9	84.88
Female	46.46	31.98	35.23
Person	68.15	58.99	61.04
<b>2011-12</b>			
Male	81.82	80.00	80.44
Female	30.78	23.02	24.82
Person	57.54	51.92	53.25

Source: NSSO unit level data, various rounds.

## Annexure Table 7b

### Work force participation rates (15 to 59 years) by social groups - India

Gender	SC/ST	Others	All
<b>1993-94</b>			
Male	89.32	84.53	85.77
Female	57.95	38.56	43.63
Person	73.99	62.20	65.27
<b>2004-05</b>			
Male	86.86	84.10	84.84
Female	54.58	38.74	43.01
Person	71.14	61.96	64.44
<b>2011-12</b>			
Male	82.62	80.08	80.76
Female	40.77	28.34	31.7
Person	61.99	54.7	56.67

Source: NSSO unit level data, various rounds.

## Annexure Table 8a

### Trends in nature of employment - Uttar Pradesh (%)

Type of employment	Male	Female	Person
<b>1993-94</b>			
Self employed	67.47	75.27	69.36
Regular salaried	11.32	3.12	9.34
Casual labour	21.21	21.61	21.31
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>2004-05</b>			
Self employed	66.69	82.75	71.15
Regular salaried	13.72	3.85	10.98
Casual labour	19.59	13.40	17.87
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>2011-12</b>			
Self employed	57.58	78.03	62.24
Regular salaried	13.13	6.88	11.71
Casual labour	29.28	15.09	26.05
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: NSSO unit level data, various rounds.

**Annexure Table 8b****Trends in nature of employment - India (%)**

Type of employment	Male	Female	Person
<b>1993-94</b>			
Self employed	51.29	56.23	52.90
Regular salaried	18.57	6.74	14.72
Casual labour	30.14	37.03	32.38
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>2004-05</b>			
Self employed	52.33	60.25	54.91
Regular salaried	19.46	9.49	16.22
Casual labour	28.20	30.26	28.87
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>2011-12</b>			
Self employed	48.78	55.83	50.72
Regular salaried	21.77	13.97	19.63
Casual labour	29.45	30.2	29.65
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: NSSO unit level data, various rounds.

**Annexure Table 9****Trends in industrial structure of employment - Uttar Pradesh (%)**

Industry	2011-12			2004-05			1993-94		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
Agriculture	43.05	72.39	49.73	50.3	80.46	58.66	62.31	82.6	67.19
Mining	0.64	0.39	0.58	0.22	0.21	0.22	0.21	0.03	0.17
Manufacturing	12.97	13.89	13.18	14.03	10.21	12.97	10.68	8.07	10.05
Electricity	0.48	0.45	0.47	0.23	0.03	0.18	0.39	0.06	0.31
Construction	16.95	2.33	13.62	8.41	0.78	6.29	2.98	0.32	2.34
Trade	12.35	2.62	10.13	13.48	2.73	10.5	8.95	2.92	7.5
Transport	4.61	0.17	3.6	5.23	0.13	3.81	3.6	0.11	2.76
Others	8.95	7.77	8.69	8.1	5.46	7.37	10.89	5.89	9.69
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: NSSO unit level data, various rounds.

**Annexure Table 10****Average daily wages (INR) by educational level of workers (15-59 years), by their gender, 2011-12**

Educational level	Rural			Urban			Wage differential (%)	
	Male	Female	Total	Male	Female	Total	Rural (F/M)	Urban (F/M)
<b>Uttar Pradesh</b>								
Illiterate	158.6	60.7	127.7	177.2	137.6	169.2	0.38	0.78
Up to primary	168.5	61.1	154.7	211.0	101.4	203.4	0.36	0.48
Middle	172.8	63.9	166.8	213.5	96.3	208.7	0.37	0.45
Secondary & senior secondary	262.4	189.0	251.1	357.3	367.4	357.9	0.72	1.03
Graduate & above	561.1	397.0	537.9	849.3	578.5	804.4	0.71	0.68
<b>Total</b>	<b>295.8</b>	<b>171.1</b>	<b>276.4</b>	<b>452.5</b>	<b>374.0</b>	<b>443.2</b>	<b>0.58</b>	<b>0.83</b>
<b>India</b>								
Illiterate	179.3	81.9	148.3	200.1	120.1	169.2	0.46	0.60
Up to primary	192.0	100.6	176.9	218.7	134.9	201.6	0.52	0.62
Middle	213.9	108.9	197.6	251.7	137.7	236.8	0.51	0.55
Secondary & senior secondary	333.1	228.0	316.1	381.0	329.4	373.9	0.68	0.86
Graduate & above	542.9	375.0	508.5	793.4	609.4	749.2	0.69	0.77
<b>Total</b>	<b>321.5</b>	<b>206.0</b>	<b>300.3</b>	<b>462.0</b>	<b>368.1</b>	<b>443.2</b>	<b>0.64</b>	<b>0.80</b>

Source: NSSO unit level data, various rounds.

**Annexure Table 11****Average daily wages (INR) by educational level of workers (15-59 years), by their social group, 2011-12**

Educational level	Rural			Urban			Wage differential (%)	
	SC/ST	Others	Total	SC/ST	Others	Total	Rural (SC/Others)	Urban (SC/Others)
<b>Uttar Pradesh</b>								
Illiterate	101.4	149.5	127.7	223.9	151.1	169.2	0.68	1.48
Up to primary	182.3	143.7	154.7	309.4	189.2	203.4	1.27	1.64
Middle	171.8	165.6	166.8	234.0	200.9	208.7	1.04	1.16
Secondary & senior secondary	210.5	261.7	251.1	457.9	336.2	357.9	0.80	1.36
Graduate & above	589.4	528.7	537.9	322.1	850.8	804.4	1.11	0.38
<b>Total</b>	<b>229.1</b>	<b>291.7</b>	<b>276.4</b>	<b>316.9</b>	<b>466.5</b>	<b>443.2</b>	<b>0.79</b>	<b>0.68</b>

<b>India</b>								
Illiterate	132.2	159.4	148.3	174.8	166.8	169.2	0.83	1.05
Up to primary	183.2	174.0	176.9	207.9	199.7	201.6	1.05	1.04
Middle	186.9	201.7	197.6	236.3	236.9	236.8	0.93	1.00
Secondary & senior secondary	325.4	313.5	316.1	374.1	373.8	373.9	1.04	1.00
Graduate & above	508.4	508.6	508.5	574.0	775.2	749.2	1.00	0.74
<b>Total</b>	<b>274.6</b>	<b>309.2</b>	<b>300.3</b>	<b>344.8</b>	<b>466.9</b>	<b>443.2</b>	<b>0.89</b>	<b>0.74</b>

Source: NSSO unit level data, various rounds.

## Annexure Table 12a

### Annual growth rates in wages of regular salaried workers by their gender and educational levels, 2004-05/2001-12 (CAGR)

Educational level	Rural			Urban		
	Male	Female	Total	Male	Female	Total
<b>Uttar Pradesh</b>						
Illiterate	2.64	1.86	0.91	2.72	5.99	3.12
Up to primary	2.28	-0.94	1.64	2.12	-2.43	1.90
Middle	1.53	-3.25	1.32	1.78	7.68	1.81
Secondary & senior secondary	-1.01	-3.50	-1.41	0.80	2.27	0.88
Graduate & above	4.82	7.01	4.91	6.09	2.97	5.65
<b>Total</b>	<b>3.26</b>	<b>0.13</b>	<b>2.69</b>	<b>4.71</b>	<b>3.33</b>	<b>4.54</b>
<b>India</b>						
Illiterate	2.47	3.95	3.23	2.49	4.27	3.32
Up to primary	1.77	2.89	1.79	2.46	2.50	2.32
Middle	0.97	2.50	0.81	2.58	1.22	2.29
Secondary & senior secondary	1.04	0.34	1.03	1.08	0.78	1.06
Graduate & above	1.25	2.65	1.28	2.64	3.04	2.69
<b>Total</b>	<b>1.84</b>	<b>3.07</b>	<b>1.99</b>	<b>3.31</b>	<b>3.77</b>	<b>3.36</b>

Source: NSSO unit level data, various rounds.



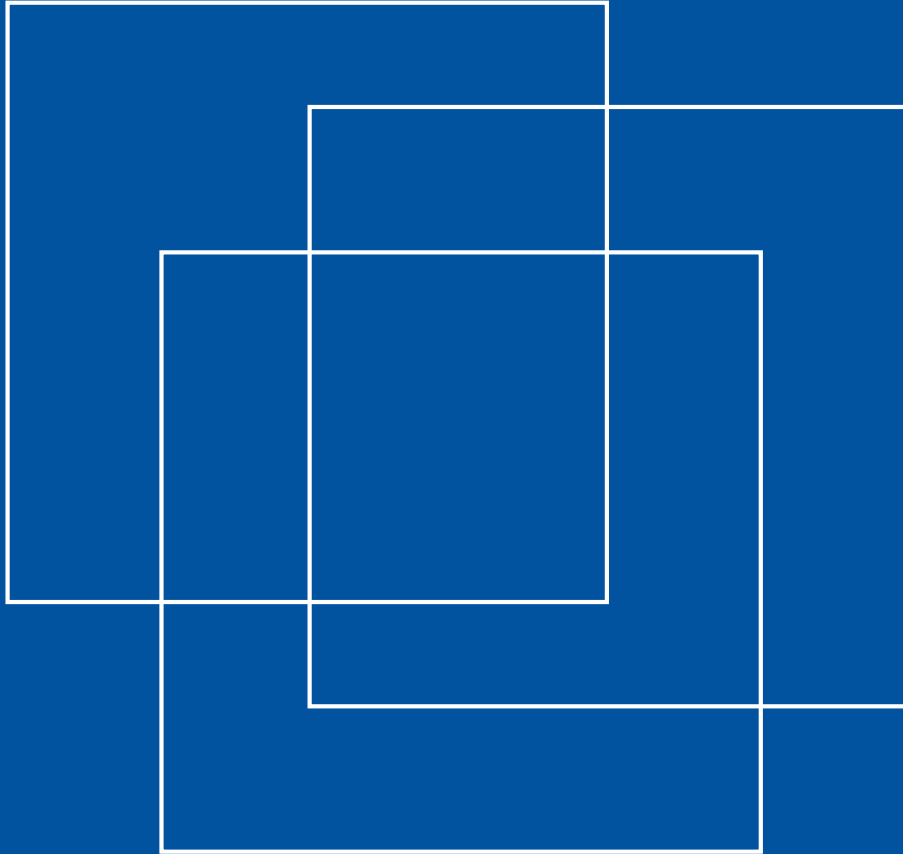
**Annexure Table 12b****Annual growth rates in wages of regular salaried workers by their social group and educational levels, 2004-05/2001-12 (CAGR)**

Educational level	Rural			Urban		
	SC/ST	Others	Total	SC/ST	Others	Total
<b>Uttar Pradesh</b>						
Illiterate	-2.25	3.10	0.91	2.47	2.73	3.12
Up to primary	3.04	0.79	1.55	2.60	1.91	1.90
Middle	3.42	0.67	1.32	1.37	1.71	1.81
Secondary & senior secondary	-6.81	-0.30	-1.41	2.72	0.22	0.91
Graduate & above	8.90	4.31	4.91	-8.79	6.58	5.65
<b>Total</b>	<b>1.88</b>	<b>2.98</b>	<b>2.68</b>	<b>0.49</b>	<b>5.19</b>	<b>4.55</b>
<b>India</b>						
Illiterate	2.18	3.92	3.23	2.71	3.74	3.32
Up to primary	2.49	1.44	1.77	1.92	2.52	2.32
Middle	1.00	0.75	0.82	1.58	2.51	2.29
Secondary & senior secondary	0.95	1.05	1.03	0.74	1.11	1.06
Graduate & above	2.69	0.97	1.28	0.94	2.98	2.69
<b>Total</b>	<b>2.49</b>	<b>1.83</b>	<b>1.99</b>	<b>3.26</b>	<b>3.41</b>	<b>3.36</b>

Source: NSSO unit level data, various rounds.







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