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ARTICLE

The Employment Challenge in India: Hundred Years from *'Ten days that shook the World'*

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Abstract

Hundred years from the Bolshevik Revolution that shook the world, workers around the globe are facing new challenges. Throughout a long stretch of the global South, job creation is sluggish, real wages are stagnant, and working conditions are getting harsher and there is a growing disjoint between work and wealth. Against this backdrop, in this paper we flag the employment challenges facing India at present. Using a novel 4-quadrant compartmentalisation, we observe that the three major challenges are—absolute lack of employment opportunities; chronic unemployment and intermittent employment; and substantial underemployment and loss of person days. Two further related challenges are low returns from work and skill mismatch. All these markers have worsened in the last decade which also witnessed massive job loss for casual workers. This is perhaps a natural sequel to the economic boom built on mass casualisation of workforce over the previous two decades. At first sight of slowdown, the axe has fallen on these casual workers. Mismatch between sectoral shares in output and employment also causes wage disparity and aggravates inequality. With production increasingly set to become machine and AI driven, labour redundancy and skill mismatch is expected to worsen in coming years. We must press for a separate employment–incomes policy rather than continue with the false hope that economic growth will solve the employment conundrum.

Keywords Employment · Underemployment · Chronic unemployment · Intermittent employment · Irregular employment · Job-loss growth · India

JEL Classification J21 · J22 · J23 · J4 · J31 · J64 · E24

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1 Introduction

The Bolshevik Revolution and taking control of Russia from St Petersburg to Vladivostok took place just 100 years ago–immortalised by John Reed's *'Ten days that shook the World'*. That event and the *The Paris Commune* that took place about 50 years earlier were significant events for the world of work. Concerns about availability of work, working conditions, wages and remunerations, and workers' rights were recognised and put on record as concerns of the society and State. Also, about the same time the ILO was formed and its introductory proclamations and articles on working conditions, wages and security came out (ILO 1919). However, these were limited to the developed world, and the developing countries, mostly colonies till then, were out of the picture till the 1950s when most of them got independence. Hundred years from then, workers around the world are facing new challenges. Though the challenges take different forms in different countries, in large parts of the global South creation of jobs is sluggish at the best and absent at the worst, remuneration from jobs has been almost stagnant, working hours and working conditions are becoming longer and harsher, technology is threatening to render a large swathe of workers redundant, and there is a growing disjoint between work and wealth. Against this backdrop, we attempt in this paper to flag the challenges that India is facing in the world of work.

2 Background and Database

For more than a decade now, researchers have been highlighting several fault lines that plague the labour market in India. They have spoken of jobless economic growth (Kannan & Ravindran, 2009, 2019; Abraham, 2017; Himanshu, 2019; Mehrotra & Parida, 2019; Ghose, 2021; Ghose & Kumar, 2021), lack of remunerative work (Ghose, 2016; Abraham & Sasikumar. 2017; Srivastava & Padhi. 2020), discrimination and inequalities in the labour market (Thorat & Mullick, 2006; Das, 2006; Deshpande & Newman, 2007; Majumder, 2010; Majumder & Mukherjee, 2011), the role of technology in shaping the employment scenario (Majumder, 2018; Ghose & Kumar, 2021) and the relation between globalisation and plight of working class (Ghose, 2003, 2014; Majumder, 2008; Ghose et al., 2008). Lately, researchers have also flagged the issue of job-loss growth and the role of education in determining labour market outcome (Kannan & Ravindran, 2019; Ghose & Kumar, 2021). Our paper adds to this body of literature by expanding the scope of analysis and updating the results to the latest nationally representative data available for the pre-pandemic period. It also looks at the regional dimension of the labour market trends, something which not many researchers have touched upon recently.

The paper uses the unit-level records of NSSO Employment and Unemployment Survey of the 68th round (2011–12) and the NSSO-Periodic Labour force

Survey 2018–19 as the main data source. This has been supplemented by other sources like the National Accounts Statistics, RBI Handbook on Indian Economy, Estimates of State Domestic Product, and few others.

The paper is structured as follows. The next section deals with the results and discussions on the employment challenges facing India at this point of time. The fourth and fifth sections discuss the regional and social dimensions of the challenges, and the sixth section concludes.

3 Employment Challenges in India

Both the Bolshevik control of Russia with their proclaimed objective of setting up a socialist world and the acceptance of ILO's proclamations in the other half of the world not only brought the workers to the forefront of social, economic and political struggle, but also recognised their importance in having a just and equitable society. However, the nature of employment in the developing countries was mostly unorganised and irregular, and there was not much progress in securing workers' rights either through political movements or institutional measures. Nevertheless, in India, there was a signal at the policy level that labour rights, wages and job security were areas where the state can intervene and a plethora of laws and regulations were put in place, some of which arguably may have been in place for too long.[1] But ever since the Structural Adjustment Programme was initiated during 1990s, it became quite fashionable to blame labour in general and (to quote mainstream media) '*overprotected organised labour'* in particular for all the ills of India's economy, and suggesting labour market deregulation as the panacea, in spite of the fact that such regulations covered only about 5–7 per cent of the workers. At the macro level, the last three decades witnessed employers adopting more and more machine intensive technology leading to continuous decline in the elasticity of employment to output (GVA) from about 0.5 during 1983–1987 to 0.06 during 2004–2011 and then turning negative during 2011–2018. At the same time, there was a clear trend towards outsourcing of work from the organised sector, casualisation of work, and depending more and more on piece rate work rather than wage labour. These trends consolidated after the turn of the century, prompting the government to adopt a massive rural employment guarantee scheme. While this did help in alleviating the problem for some time, economic slowdown and resultant lack of demand coupled with curtailing the outlay on NREGS in real terms led to a marked worsening of the labour market conditions, especially in rural areas. In this paper, we flag five issues as main challenges facing Indian labour market at present—(a) absolute lack of employment opportunities; (b) chronic unemployment and intermittent employment; (c) substantial underemployment and loss of person days; (d) low returns from work; and (e) skill mismatch.

3.1 Absolute Lack of Employment Opportunities

That employment opportunities in India have been slowing down consistently in recent years has already been recorded by several researchers (Kannan & Ravindran,

2019; Abraham, 2017; Himanshu, 2019; Mehrotra & Parida, 2019; Ghose, 2021; Ghose & Kumar, 2021). The elasticity of employment wrt output (GVA), which had been declining since 1993–94, turned negative during 2011–2018 period (Table 1). This disjoint between output growth and employment expansion becomes more noticeable if we look at the detailed figures across broad NIC sectors. The elasticity is negative for Agriculture & allied sectors, Mining & quarrying and Manufacturing—sectors that together employ more than half of our workforce. While the shift of workers from agriculture is welcome, the question that arises is where do these displaced workers go? Perhaps a part of them throng the overcrowded low productive service activities that go under the broad euphemism Tertiary sector jobs (see Majumder & Mukherjee, 2008 for more on this).

Another factor often overlooked is the mismatch between sectoral shares in GVA and sectoral shares in employment. Several sectors that are dominating the GVA horizon have low employment share (e.g. financial and business services) while sectors with high share in employment have low share in GVA (agriculture + and construction, for example). If we apply a Segregation Index to have an idea of the extent of disjoint between sectoral structure of employment and sectoral structure of GDP, we find that the SI comes to 0.38 for 2018–19, up from 0.30 for 2011–12.[2] This structural disjoint is the main reason why economic growth is not accompanied by similar rise in employment. Another corollary of this mismatch is that labour productivities are significantly different across sectors ranging from Rs. 0.12 million per worker per year in agriculture & allied sector to Rs. 5.4 million per worker per year

Table 1 Macroeconomic Aggregates

Industrial sector (NIC)	2011–2018			2018–19	
	Employment growth rate	Output growth rate	Elasticity of employment wrt GDP	Sectoral share in GVA	Sectoral share in total Empt
Agriculture and allied	−2.0	3.2	−0.63	14.6	41.5
Mining and quarrying	−4.5	4.1	−1.11	2.7	0.4
Manufacturing	−0.7	7.4	−0.09	18.1	12.2
Elec, gas and water sup	0.5	6.8	0.07	2.3	0.6
Construction	1.7	4.0	0.43	8.0	12.3
Trade & repairs	1.6	9.7	0.16	11.9	10.8
Hotels and restaurants	1.1	6.3	0.17	1.1	1.9
Transport & storage	2.0	6.5	0.30	4.9	5.1
Communication	2.8	7.0	0.40	1.6	1.0
Financial/real estate/business services	4.6	8.9	0.52	21.8	3.5
Community, social and personal services	2.0	7.3	0.27	13.1	10.7
Aggregate	**−0.2**	**6.7**	**−0.03**	**100.0**	**100.0**

Bold values indicate the 'aggregate' figures

Source: Authors' calculations based on NSSO (2007, 2011, 2019) and CSO (2020)

Table 2 Labour Market Situation—Absolute Changes during 2011–2018

Categories	Addition/reduction in 2018–19 over 2011–12 (millions)			
	population	Labour force	Workers	15–29 NEET
Aggregate	(+)38.0	(+)11.5	(−)6.4	(+)19.6
RURAL	(+)5.9	(−)3.5	(−)14.7	(+)14.1
URBAN	(+)32.0	(+)15.1	(+)8.3	(+)5.5

Source: Authors' calculations based on NSSO (2011, 2019) and population estimates from (MoHFW 2020)

Table 3 Labour Market Situation—Long Run Trends—1993–2018 (millions)

Year	Labour force		Workers		Casual wage labour		Regular wage employee		Self-employed	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1993–94	289.1	88.6	280.4	83.5	90.2	14.3	20.1	33.8	170.1	35.3
1999–2000	314.4	101.1	309.7	96.3	115.9	17.1	21.1	38.6	172.7	40.7
2011–12	349.0	136.7	341.0	131.5	124.4	19.5	32.6	58.5	184.0	53.5
2018–19	345.5	151.8	326.3	139.7	94.9	18.8	45.6	68.8	185.8	52.1

Source: Author's calculations based NSSO (1994, 1999, 2011, 2019) and population estimates from MoHFW (2020)

in financial and business services sector (at current prices for the year 2018–19). As a result, wages/remuneration are also vastly different across sectors with the large employing sectors being low paying and the sectors with low employment size paying several times (in fact several hundred times) more. This in turn aggravates inequality in the society—which researchers have spoken of and even World Bank has recorded in recent times.

Coming back to the employment challenge itself, using rates and shares from the Employment surveys of NSSO and projected population from MoHFW (2020), size of labour force and workers can be estimated. It appears that current trends of low elasticity along with economic slowdown in the recent years have resulted in an absolute decline in number of workers by about 6.4 million during 2011–2018. Job loss has been particularly severe in rural areas where close to 15 million jobs have been lost (Table 2).

However, what is interesting is the anatomy of this job loss. It seems that the job loss has been entirely among the rural casual labourers and unskilled workers. In fact rural casual labourers have decreased by about 31 million during this period, while regular workers have increased by about 13 million in rural areas and 10 million in urban areas (Table 3). Does this therefore mean regularisation of the workforce? We argue otherwise. First, most of this increase in regular workers, at least in the rural areas, was through addition to teachers and health workers in the public sector as a result of the push towards social sector infrastructure in rural areas. Second, this is just the confirmation of the views expressed by researchers who were speaking of

the increasing trends (and associated perils) of casualisation of the workforce over the last two decades. It is our contention that the economic boom of the first decade of this century was built on induction of casual labourers, and at first sight of slowdown, the axe fell on these casual workers.

3.2 Unemployment and Intermittent Employment: A 4-quadrant Analysis

The absolute decline in employment and job loss, for the first time in recorded history of employment surveys in India, has naturally pushed up open unemployment rate (Table 4). Usual principal & subsidiary status (UPSS) unemployment rate increased from 2.7 per cent in 2011–12 to 6.3 per cent in 2018–19. The increase is more for males, from 2.4 to 6.3 per cent, which has now surpassed female unemployment rate for the first time.

However, the UPSS is only a partial view of the unemployment situation in India because of the conceptual and operational nuances of defining usual status employment in the NSSO framework. Large number of workers who are designated as employed in the UPSS nomenclature may in fact find job for only some part of the year. To get a fuller view, we can look at the current weekly status (CWS) figures. The unemployment rates as per CWS are consistently higher than the UPSS unemployment rates, indicating that considerable proportion of the labour force in India are without regular jobs. Mathur (1999) had termed the difference between CWS unemployment rate and UPSS unemployment rate as semi-open unemployment or a measure of disguised unemployment, and it appears that this has increased over time.

We can also compartmentalise the labour force into four segments or quadrants based on their UPSS and CWS. Those who are unemployed by both UPSS and CWS

Table 4 Labour Market Parameters—UPSS and CWS

Categories	2011–12				2018–19			
	LFPR	WPR	REG EMP Prop	UNEMPR	LFPR	WPR	REG EMP Prop	UNEMPR
UPSS—Aggregate	36.4	35.4	19.3	2.7	36.3	34.0	24.5	6.3
UPSS—RURAL	36.8	35.9	9.6	2.3	36.2	34.2	14.0	5.5
UPSS—URBAN	35.6	34.2	44.5	3.8	36.4	33.5	49.2	8.0
CWS—Aggregate	37.7	36.4	18.9	3.7	36.2	33.0	25.2	8.8
CWS—RURAL	38.3	37.0	9.3	3.4	35.9	32.9	14.4	8.4
CWS—URBAN	36.3	34.7	44.0	4.4	36.7	33.2	49.8	9.6

Note: LFPR—Labour Force Participation Rate

Source: Authors' calculations based on NSSO (2011, 2019)

are those without work throughout the year including current period, and hence may be designated as suffering from chronic unemployment. Those who are employed in UPSS but unemployed by CWS are those who have irregular employment. On other hand, those who are currently working but are usually unemployed are those with intermittent employment. Those who are employed both at UPSS and CWS are those who have stable employment. It is observed that more than 10 per cent of the labour force in 2018–19 does not have stable employment—they are either usually unemployed or currently unemployed, or both (Table 5). The proportion of stable employment has come down between 2011 and 2018; while the proportion of chronic unemployment has almost trebled from 2.3 per cent in 2011–12 to 5.9 per cent in 2018–19. Also during the same period, intermittent employment has come down while irregular employment has increased. This signals a worsening labour market condition where availability of stable jobs for a fairly reasonable stretch of time is declining and open and semi-open unemployment is increasing. Both chronic unemployment and stable employment are higher in urban areas, while irregular and intermittent employment are higher in rural areas. This highlights the fact that employment status in urban areas is more of a binary nature (stable employment/permanent unemployment), while employment in rural areas is transitory and unstable.

Another issue that must be remembered in this context is that unemployment figures often do not reflect the true magnitude of the employment challenge due to the *Withdrawn Labour Syndrome*. Job aspirants, especially the less skilled of them, withdraw from the labour market when faced with meagre work opportunities. This is reflected in the declining LFPR in recent decade in India.

3.3 Underemployment and Person-Days Lost

In addition to the difference between usual and current status, another issue often overlooked is the lack of work on a fairly regular & continuous basis for even those who are usually and currently working. Following the methodology suggested by Ghose (2004), we can try to estimate the extent of person-days lost due to unemployment/underemployment in India using three different components. Taking a 6-day working week with 1 day off from work as desirable, those who are usually and currently unemployed are multiplied by 6 to get person-days lost per week due to chronic unemployment. Those who are usually employed but currently unemployed are also contributing to person-days lost at the rate of 6 days per week. This is the person-days lost due to irregular employment or temporary unemployment. However, as mentioned earlier, even those who are usually and currently employed do not have work for all days in a week. The difference between days available for work (6 days in our case) and days of actual work in a week would give us person-days lost due to underemployment. The sum of all these three components would give us an estimate of person-days lost due to the different forms of unemployment in India.

It is observed that in 2018–19, about 473 million person days in total were lost in a reference week, which is about one-fifth of total available person days in a week

Table 5 Nature of Employment—4-Quadrant Analysis

Categories	% of labour force in 2011–12 in				% of labour force in 2018–19 in			
	Chronic Unempt	Intermittent Empt	Irregular Empt	Stable Empt	Chronic Unempt	Intermittent Empt	Irregular Empt	stable Empt
	Usually and currently not employed	Currently employed but not usually	Usually employed but not currently	Usually and currently employed	Usually and currently not employed	Currently employed but not usually	Usually employed but not currently	Usually and currently employed
Aggregate	**2.3**	**5.6**	**3.2**	**88.8**	**5.9**	**2.1**	**4.9**	**87.1**
RURAL	1.9	6.8	3.9	87.4	5.2	2.4	5.9	86.6
URBAN	3.5	2.8	1.4	92.3	7.5	1.6	2.6	88.3
MALE	2.2	0.9	2.2	94.7	6.1	0.7	3.3	89.9
FEMALE	2.7	19.1	6.2	72.0	5.2	6.9	9.9	78.1

Bold values indicate the 'aggregate' figures

Source: Authors' calculations based on NSSO (2011, 2019)

Table 6 Extent of Person-Days Lost due to Different Forms of Unemployment

Category	**2011–12**					**2018–19**				
	Person days available	Person-days lost due to				Person days available	Person-days lost due to			
		Chronic Unemp	Current Unemp	Non-work days	Total PD Lost		Chronic Unemp	Current Unemp	Non-work days	Total PD lost
Aggregate	2464	65.1	90.4	264.5	420.0	2340	147.0	204.8	121.7	473.5
RURAL	1781	39.4	60.3	225.9	325.6	1626	90.2	136.2	93.0	319.3
URBAN	683	25.7	30.1	38.6	94.4	719	56.8	68.7	28.7	154.1
MALE	1846	45.2	64.1	138.0	247.3	1819	115.2	159.7	96.0	370.9
FEMALE	622	20.0	26.3	126.5	172.8	520	31.8	45.1	25.6	102.5

Source: Authors' calculations based on NSSO (2011, 2019)

(Table 6). With such a high wastage of available and willing to work manpower, it is no wonder that sceptics have termed India's demographic window to be disaster rather than a dividend. This wastage has increased over the 2011–2018 period, and at a relatively faster rate in the urban areas.

What is also evident is the changing structure of unemployment and underemployment in India. While in 2011–12, the dominant reason for person-days lost was underemployment or lack of work on all days of the week, in 2018–19 the dominant reasons are chronic and temporary unemployment (Table 7). Unemployment in India is therefore becoming more a permanent status rather than discontinuous and less intense work availability that was believed to be in context of the developing nature of our economy. This shift indicates that the employment challenge is now more along the structural fault lines rather than a characteristic of a subsistence agro-based economy. This may also be early signs of technological unemployment that researchers are speaking of in recent times in context of the *fourth industrial revolution*. The shifts, when seen in conjunction with anecdotal evidence of growing mechanisation of farming activities throughout the country, seem to be definitely pointing towards such an implication. Policies naturally have to look beyond the current discourse of state sponsored rural employment guarantee programmes, obsolete vocational training programmes in public institutions, and soft credit for rural MSMEs.

3.4 Low Returns from Work

Another dimension of the challenges in the labour market apart from an absolute scarcity of jobs is the low returns from work for even those who are working. True that India has a long history of Minimum Wage legislations and that there is a National Minimum Wage legislation which speaks of a daily wage rate ranging from Rs. 350 to Rs. 750 (2018–19, current prices) depending on type of industry/occupation and skill level of workers, and also true is that headlines appear in the mainstream media boasting of multi-million packages earned by B-school graduates,

Table 7 Proportion of Person-Days Lost due to Different Forms of Unemployment

Categories	Lost days as % of days available							
	Due to usually and currently unemployed		Due to usually employed but currently unemployed		Due to currently employed but not working all days of week		Total person-days lost	
	2011–12	2018–19	2011–12	2018–19	2011–12	2018–19	2011–12	2018–19
Aggregate	2.7	6.3	3.7	8.8	11.1	5.7	17.0	20.2
RURAL	2.3	5.5	3.4	8.4	13.1	6.3	18.3	19.6
URBAN	3.8	8.0	4.4	9.6	5.9	4.4	13.8	21.4
MALE	2.4	6.3	3.5	8.8	7.8	5.8	13.4	20.4
FEMALE	3.7	6.1	4.2	8.7	21.3	5.4	27.8	19.7

Source: Authors' calculations based on NSSO (2019, 2011)

but the reality is pathetic. The legislations are observed more in the breach rather than implementing them and in 2018–19 the average daily wage was just Rs. 290, almost 20 per cent lower than the minimum of legislated minimum wages! This was up from Rs. 243 in 2011–12, a marginal increase of about 3 per cent per annum. More than 60 per cent of workers earn a daily wage of less than the minimum mark already mentioned, that is, Rs. 350.

There is substantial disparity in earnings with the regular workers earning almost double of the casual labourers, who have an additional constraint of not finding work (and hence no pay) on all days of the week. As a result, the gap widens further if we consider the average monthly income of these two types of wage workers. Those in self-employment are earning marginally more than the casual labourers. Urban–Rural divide with urban wages on an average being almost 80 per cent higher than rural wages, and gender gap with average female wages being about two-third of average male wages is also observed.

Even within these segments, there exists high degree of inequality at the individual level based on industry/occupation and skill. Maximum wages are more than six times of the median wage for rural casual labourers and more than ten times for urban regular workers. Gini concentration ratio is significantly high at 0.42 in aggregate, ranging from 0.32 for male casual labourers to 0.52 for female regular workers. Wage inequality is also higher in urban areas that rural areas. It is also observed that all these parameters have increased during 2011–2018, implying that wage inequality has increased during this period.

3.5 Skill Mismatch in the Labour Market

So far we have outlined the challenges in the Indian labour market at present as—absolute lack of employment opportunities and a spectre of job loss; rise in chronic unemployment; substantial loss of person days due to non-availability of work; and low and unequal wages. The fifth challenge that we are flagging is the problem of skill mismatch in the labour market—an issue that is being raised by business houses and trading bodies for the last two decades but not adequately analysed by researchers (except a few like Karan & Sasikumar, 2010; Blom & Saeki, 2011; FICCI, 2011; Murti & Paul, 2013; Rath & Behera, 2014). Based on an ongoing work, we have segregated available population, available manpower and workers into five groups—unskilled, low skilled, moderately skilled, high skilled and very high skilled (details in endnote)[3]. It is observed that more than three-fourth of the Indian labour force are either unskilled or low skilled while just about one-eighth of them are high skilled (Table 8). Less than 2 per cent of the labour force are very high skilled. The pattern of workforce is similar, with even more proportion of workers in the lower skill categories.

While this is the situation at the supply side, the demand pattern is different, at least in terms of regular employment in the leading and emerging sectors of the economy. If we look at the output-employment scenario, we find that four industrial sectors have either high share in GVA and regular employment or high growth rate in these during 2011–2018, or both. As a result, they have a high contribution to the

Table 8 Skill Profile of Labour Force and Labour Demand in High Contributing Sectors

Skill group	Labour force profile 2018–19	Workers profile 2018–19	20–35 year age cohort 2018–19	Regular workers in BIG 4 sectors	Projected surplus/ deficit
Unskilled	28.3	29.7	17.4	10.2	7.3
Low skilled	46.9	47.7	45.9	38.4	7.3
Medium skilled	10.8	10.2	18.0	17.5	0.4
High skilled	12.2	10.9	16.6	29.8	− 13.2
Very high skilled	1.8	1.5	2.2	4.1	−1.9

Source: Authors' calculations based on NSSO (2019)

Note: Projected surplus/deficit is difference between skill-group shares of 20–35 age cohort over the skill share of workers in main four contributing sectors

macroeconomic growth and employment and may be called, to borrow from Agatha Christie's Hercule Poirot, *the BIG 4*. These are—manufacturing, trade & repairs, financial and business services (including real estate), and community, social, and personal services. Together they account for more than 70 per cent of the observed GDP growth and more than 85 per cent of the regular employment growth during 2011–2018. Closer look at their worker profile would give us an idea of the skill profile that is expected to be *in demand* in the near future. It is observed that the proportion of high skilled and very high skilled workers in the BIG 4 sectors ranges from about 15 per cent in manufacturing to about 56 per cent in financial & business services. Thus, while the available labour force is predominantly unskilled and low skilled, the demand pattern from the dominating sectors is more of highly skilled manpower.

One may argue that the skill profile of the aggregate labour force or workforce is contaminated by the older workers who do not possess adequate formal skill as enumerated by the surveys. To remove this bias, we have also looked at the skill profile of a relatively younger section of the labour force—the 20–35 year age cohort—from the PLFS 2018-19 data. It is found that the skill profile of the younger age cohort is indeed better than the aggregate picture, but only marginally so. About 60 per cent of them are unskilled or low skilled while close to 20 per cent of them are high skilled or very high skilled, but that still does not match with the pattern of skill demand of the BIG 4. There is thus a projected surplus of workers at the lower end of the skill ladder and a shortage at the higher end.

If we see these results in perspective of the fact that of the 18 million incremental unemployment during 2011–2018 period, more than 7 million were for the unskilled and low skilled workers, it would not be wrong to comment that the job loss and sluggish employment growth is driven by displacement of unskilled workers (mainly in rural areas) who are unable to get absorbed in the growing sectors of the economy because of their inadequate skill. Having said that, we must not fail to take notice of the high and growing unemployment of even high skilled & very high skilled workers. This second phenomenon raises question about the quality, relevance or applicability of the so called 'high skill' attained through our formal education system.

Essentially, there is a growing mismatch between the pattern of employment emanating from the current growth process and the existing structure of the labour force.

Apart from augmenting the overall employment opportunities, another challenge therefore would be to provide 'saleable' skill set to the workers in line with the nature of skills demanded in the labour market. Given that the corporate sector has shrugged off its responsibility of training workers and the Apprenticeship Act had become virtually non-functional, much is being expected from the recently launched National Apprenticeship Framework and PMKVY. Whether workers would remain at the mercy of 'learning by doing' and join the long queue of technological unemployment or they would be suitably trained to join remunerative jobs in the new economy shall define the future of India.

4 Regional Dimension of Current Employment Challenges

While the macro trends outlined above are true for the entire country, there are some subtle and some not so subtle differences across the regions & states that may provide further insights into the heterogeneity and the processes involved.

4.1 Trends and Patterns

The loss of jobs and decline in number of workers is true for all the major states—more so in the economic powerhouses like Gujarat, Karnataka, Maharashtra and Andhra Pradesh, and the large populous state of Uttar Pradesh (Table 9). Only states like Chhattisgarh, Assam, Jammu & Kashmir, Jharkhand, Madhya Pradesh and Rajasthan added workers over the 2011–2018 period, driven by the rise in number of regular workers. These six states have also seen a rise in stable employment during this period. In addition, stable employment is also higher than national average in Gujarat and Punjab (Table 10). Unemployment, both chronic and intermittent, is noticeably higher in Bihar, Odisha, Punjab, Uttarakhand, Haryana and Kerala. Jammu & Kashmir and Chhattisgarh exhibit relatively low chronic unemployment but very high intermittent unemployment, signalling the seasonal nature of work in these two states. Underemployment in the form of lack of work on several days of a week is higher than national average in Kerala, Tamil Nadu, Odisha, Madhya Pradesh and West Bengal. Number of unemployed persons has increased at more than 20 per cent per annum (i.e. more than doubled in 7 years) in the economic powerhouses of Gujarat, Haryana, Maharashtra, along with Himachal Pradesh, Madhya Pradesh and Rajasthan.

It is thus clear that the worsening of the employment situation as seen at the national level has been true for two sets of states—those at the bottom of the economic ladder (as measured by the per capita net state domestic product or its growth rate) and those at the top. While the trend can be understood and explained for the bottom states as a manifestation of general lack of economic activities and employment opportunities in these states, what about the latter? Our argument is that there are two sets of factors operating in the economically

Table 9 Labour Market Situation in Indian States—Absolute Changes during 2011-2018

States	Addition/Reduction in 2018–19 over 2011–12 (millions)					
	Population	Labour force	Casual workers	Regular workers	Self-employed (incl unpaid HH lab)	Total workers
Andhra Pradesh	(−)1.5	1.7	(−)3.8	1.7	(−)2.5	(−)4.5
Assam	2.4	0.5	0.1	1.8	(−)1.1	0.8
Bihar	8.7	1.2	(−)2.6	1.2	1.2	(−)0.1
Chhattisgarh	1.6	0.5	(−)2.5	0.7	2.4	0.6
Gujarat	(−)0.6	1.0	(−)2.8	1.1	(−)0.3	(−)2.0
Haryana	0.5	0.4	(−)0.1	1.0	(−)0.8	0.2
Himachal Pradesh	0.5	0.2	0.0	0.1	0.1	0.1
Jammu & Kashmir	1.1	0.2	(−)0.3	0.4	0.3	0.5
Jharkhand	5.3	0.5	0.1	0.8	0.1	1.0
Karnataka	0.8	1.1	(−)1.3	0.7	(−)1.5	(−)2.0
Kerala	0.1	0.6	(−)1.3	1.1	0.1	(−)0.1
Madhya Pradesh	4.6	1.3	0.3	1.2	1.1	2.6
Maharashtra	(−)2.0	2.0	(−)1.5	0.2	(−)0.5	(−)1.9
Odisha	(−)0.9	0.7	(−)0.8	0.6	(−)1.1	(−)1.3
Punjab	(−)0.1	0.4	0.0	0.5	(−)0.2	0.4
Rajasthan	10.5	1.1	(−)2.3	1.6	1.8	1.2
Tamil Nadu	0.3	1.4	(−)3.7	2.4	0.3	(−)1.1
Uttar Pradesh	(−)2.4	2.5	(−)5.2	2.1	(−)1.6	(−)4.7
Uttarakhand	0.1	0.2	0.0	0.4	(−)0.4	(−)0.1
West Bengal	1.5	1.5	(−)2.4	2.0	2.0	1.5
All India	**38.0**	**19.5**	**(−)30.1**	23.3	0.4	**(−)6.4**

Bold values indicate the 'aggregate' figures

Source: Authors' calculations based on NSSO (2011, 2019)

Table 10 Labour Market Situation in Indian States—Nature of Employment

States	Percentage of labour force in							
	Chronic unemployment		Intermittent unemployment		Irregular employment		Stable employment	
	Usually and currently not employed		Currently employed but not usually		Usually employed but not currently		Usually and currently employed	
	2011	2018	2011	2018	2011	2018	2011	2018
Andhra Pradesh	2.1	6.4	1.8	0.6	4.3	6.6	91.8	86.4
Assam	4.7	6.5	3.7	1.0	0.7	0.7	90.9	91.8
Bihar	3.4	10.0	3.1	0.2	1.3	1.5	92.2	88.2
Chhattisgarh	1.7	2.6	4.0	2.1	8.4	17.8	85.8	77.5
Gujarat	0.6	3.2	4.7	2.0	0.7	0.9	94.0	93.9
Haryana	2.9	9.1	8.4	0.2	1.5	3.2	87.2	87.5
Himachal Pradesh	1.3	5.9	4.3	2.8	2.5	7.7	91.9	83.7
Jammu & Kashmir	4.0	5.5	16.3	16.4	0.9	1.6	78.7	76.5
Jharkhand	2.8	5.5	9.1	1.6	1.5	4.6	86.5	88.3
Karnataka	1.6	3.5	1.4	0.2	1.5	2.6	95.5	93.6
Kerala	7.3	8.8	5.6	3.8	5.4	4.0	81.7	83.5
Madhya Pradesh	1.0	3.9	2.8	0.9	3.8	7.9	92.4	87.4
Maharashtra	1.4	4.9	4.6	0.7	2.9	6.5	91.1	87.9
Odisha	2.7	7.2	6.4	1.3	6.5	8.6	84.5	82.9
Punjab	2.3	7.4	15.1	1.2	1.7	2.4	80.9	88.9
Rajasthan	1.3	5.9	7.9	4.8	5.6	5.8	85.2	83.5
Tamil Nadu	2.5	6.6	3.5	1.1	2.9	4.8	91.1	87.5
Uttar Pradesh	1.8	5.9	9.6	4.3	4.1	4.5	84.5	85.3
Uttarakhand	3.0	8.7	8.9	0.4	2.5	2.3	85.7	88.5
West Bengal	3.5	3.9	8.6	4.9	2.9	4.4	85.0	86.8
All India	2.3	**5.9**	5.6	**2.1**	3.2	**4.9**	88.8	**87.1**

Bold values indicate the 'aggregate' figures

Source: Authors' calculations based on NSSO (2019)

advanced states. First, the technological advancement in these states has been faster, rendering large number of workers, especially the unskilled manual labourers, redundant. Second, migration from the rural areas of these states and also from the lagging states have swelled the mass of unemployed in the economically advanced states. This second factor has also caused a trend towards regional convergence of wage rates, both for casual and regular workers, across the country. Wage rates have increased faster in states where it was relatively lower in 2011–12 and slower in states where it was already high.

4.2 Processes and Proximate Determinants

Can we dissect the trends and patterns discussed so far to throw more light on the processes? To do that, we have tried to examine the interlinkage between the labour market parameters and few proximate determinants. Factors that are expected to affect the labour market at the regional level include—economic performance of the state (PCNSDP and its growth rate), business environment (Ease of Doing Business Index), infrastructure availability, and states' effort at development (measured here by per capita state expenditure on capital accounts). To understand the relationship, correlation coefficient between these proximate determinants and labour market parameters (unemployment rates, growth in employment and unemployment, wage rate, its growth, etc.) have been calculated. The a-priori expectations are that a better economic performance, business environment, infrastructure and state's impetus to development would lead to higher employment & wages, lower unemployment, and faster increases in stable employment and wages.

The correlation results, however, tell a different story (Table 11). Government expenditure does not have significant correlation with any labour market parameter, though it was positive for regular wage rate. It is observed that growth in both numbers of usually unemployed and that of chronically unemployed have a positive association with the economic parameters like PCNSDP and its growth rate. At the same time, growth in labour force, growth in number of workers, growth in number of regular workers, and growth in workers with stable employment all are negatively related to the economic parameters. Similar kind of association is observed with the Infrastructure Index for 2018 and Ease of Doing Business (EODB) Index for 2018 also. Wage rate for regular workers too is observed to be lower in states that have a higher EODB index. This indicates that faster economic growth, better business friendly environment or better infrastructure situation are all linked with worsening labour market situation during the 2011–2018 period. It is thus amply clear that the observed process in the labour market belies the hope that economic growth by itself will automatically solve the problem of unemployment in the country. Contrary to prophecies and expectations, leaving everything at the mercy of the market has not brought in a faster pace of job creation over a sustained period. Read in conjunction with the macro trends in the labour market, it seems that the economic boom of this century had created a short-run demand for casual workers without any dent into the structural unemployment problem. Over a longish period, macroeconomic growth has been sustained by shunning labour in favour of more capital intensive technologies that raise labour productivity. As a result, as soon as the bubble fizzles out, job loss starts. The regional estimates and association with the proximate determinants confirm this view.

5 The Social Dimension

In all the trends and processes that we have so far discussed, both at the macro and regional level, there is a strong social undercurrent at work—starting from availability of work to wages to skill (Table 12).

Table 11 Interlinkage between Labour Market Parameters and Proximate Determinants—Correlation Coefficients

	Growth in PCNSDP 2011–2018	Infrastructure Index	Ease of Doing Business index
Growth in number of unemployed persons 2011–2018	0.348	0.415*	0.436*
Growth in number of chronically unemployed persons 2011–2018	0.403*	0.428*	0.481**
Growth in labour force 2011–2018	−0.608**	−0.359	−0.356
Growth in number of workers 2011–2018	−0.644**	−0.450**	−0.373
Growth in number of regular workers 2011–2018	−0.401*	−0.653**	−0.306
Growth in number of workers with stable employment 2011–2018	−0.584**	−0.413*	−0.495**
Wage rate for regular workers	0.046	0.222	−0.640**

Note: ** and * signal significant at 1% and 5% level, respectively. Infrastructure Index and Ease of Doing Business Index are for the year 2018–19

Table 12 Labour Market Parameters across Social Classes

	Scheduled Tribe	Scheduled Caste	OBC	Others (GEN)
Proportion of workers in regular employment	13.5	21.4	22.9	33.9
UPSS unemployment rate	4.9	6.9	6.3	6.3
CWS unemployment rate	8.9	10.7	8.4	8.0
Chronic unemployment (as % of labour force)	4.5	6.5	5.9	5.8
Intermittent employment (as % of labour force)	2.0	2.1	2.1	2.3
Irregular employment (as % of labour force)	9.3	6.7	4.2	2.8
Stable employment (as % of labour force)	84.2	84.6	87.7	89.1
Person-days lost due to chronic unemployment (millions)	11.6	32.3	64.1	38.9
Person-days lost due to intermittent unemployment (millions)	20.3	49.9	84.8	49.8
Person-days lost due to no-work days (millions)	14.4	39.1	47.9	20.3
Total PD lost (millions)	46.3	121.3	196.8	109
% of PD lost	19.5	25.8	19.4	17.4
Wage rate for casual lab (Rs per day)	172	204	217	217
Wage rate for regular workers (Rs per day)	362	320	364	490

Source: Authors' calculations based on NSSO (2019)

Unemployment rates are higher for the *Dalits* and *Adivasis* (Scheduled Castes and Scheduled Tribes, respectively), while proportions of regular workers are lower among them in comparison with the General Caste (mostly Hindu Upper Castes). This is true both for the usual status and the current weekly status. Chronic unemployment and intermittent unemployment are both highest for the Scheduled Castes and for them almost one-fourth of available person days are lost due to various forms of unemployment and underemployment. SCs and STs on an average earn wages that are close to half of that earned by the general workers.

The skill distribution also shows a huge gap between the average level and that of the Dalits and Adivasis (Table 13). They have relatively higher proportion of workers/labour force in the lower rungs of the skill ladder and relatively less in the higher skill categories.

It is thus clear that along with a generally poor and worsening labour market situation, the disparity between the privileged social class and the marginalised social class in the Indian labour market is glaring and has increased in recent times.

6 Resume

6.1 Summary

The situation can therefore be summarised along the following lines. While the economic boom during the first decade of the century had created massive casualisation of the workforce, economic slowdown in the next decade has resulted in job loss of these casual workers by a larger extent, especially in the rural areas. There is growing trend towards chronic unemployment in the economy. Non-availability of work on all or some days of a reference week is also a major problem and in all about

Table 13 Skill Profile of Labour Market across Social Classes—2018–19

	Skill category	Scheduled Tribe	Scheduled Caste	OBC	Others (GEN)
Proportion in population	Unskilled	51.5	47.8	41.7	31.7
	Low skilled	38.9	39.9	41.6	42.3
	Medium skilled	6.2	7.5	9.5	11.7
	High skilled	3.2	4.4	6.3	12.9
	Very high skilled	0.2	0.5	0.8	1.4
		100.0	**100.0**	**100.0**	**100.0**
Proportion in workers	Unskilled	45.6	38.0	29.6	17.5
	Low skilled	43.8	47.1	49.4	46.8
	Medium skilled	6.1	7.8	10.4	13.4
	High skilled	4.1	6.4	9.4	19.6
	Very high skilled	0.4	0.6	1.4	2.7
		100.0	**100.0**	**100.0**	**100.0**

Bold values indicate the 'aggregate' figures

Source: Authors' calculations based on NSSO (2019)

one-fifth of available person days in a week are lost due to various forms of unemployment. Returns from work is low and far below the legislated minimum wage rate for a vast section of the workers. At the same time, wage ceilings are amazingly high for a small section, leading to high and increasing wage inequality in the country. Another problem is that of skill poverty among the workers and the growing mismatch between skill demanded by the dominating sectors of the economy and the skill profile of the labour force. Regional and social disparities in labour market outcome are also marked undesirable features plaguing the country.

6.2 Policy

What are the policy implications that we can derive from our analysis of the interlinkages? It is clear from the empirical exercise that the oft trumpeted link between macroeconomic growth and employment is tenuous in current Indian context. On the contrary, fiscal measures are believed to have positive impact on employment creation and wages. This clearly brings out the urgency of adopting fiscal expansion as the main tool to improve employment situation in the country. Only massive public spending can kick start a multiplier effect of increased disposable income, rise in effective demand, increased output, investment and employment. It is true that problem of shedding of rural agricultural workers is not something new. Till 1999–2000 NSS round, India witnessed a rise in (absolute number of) agricultural workers, mostly casual workers. But thereafter agriculture has consistently shown marked decline in number of workers usually engaged. While during the 1990s, the slack was picked up mainly by trade and manufacturing sectors, after the turn of the century construction sector emerged as the main destination of displaced rural workers. But in the second decade of this century, absorption of workers in sectors where skill requirement is low has virtually come to a standstill, and manufacturing has also shed workers. In this backdrop, the only policy worthwhile following should be to pump in more money into the rural economy to raise aggregate demand for non-farm goods and services so that workers displaced from farming are able to find off-farm jobs.

Sadly, current policy regime appears to shy away from the reality like the proverbial ostrich and is increasingly focusing on monetary policies and incentive-based interventions on the supply side to expand output and employment. It is both surprising and alarming that though the rapid casualisation and subsequent shedding of these casual workers are clear signals that rigidities in the labour market cannot be blamed for recent job loss in the country, the growing clamour to bring in 'flexibility' in the labour laws as a 'cure-all' has driven the authorities to implement several regulatory changes over the last couple of years. Whether these are able to induce private capital to pour in massive investment needed to absorb workers released by the rural primary sector is to be seen. The teeming millions of aspirant youth of the country are waiting, but not for long. We would surely prefer *welfare capitalism* to adjust and accommodate the labour market demands and a broader social democratic regime be accepted rather than witness another *'Ten days that shook the World'* repeat in the country.

7 Notes

[1]There were about 40 laws and regulations under the Union Ministry of Labour in 2020. Some of the major ones being the Trade Unions Act (1926), the Minimum Wages Act (1948), the Plantation Labour Act (1951), the Mines Act (1952), the Employees' Provident Funds and Miscellaneous Provisions Act (1952), the Maternity Benefit Act (1961), the Beedi and Cigar Workers (Conditions of Employment) Act (1966), the Contract Labour (Regulation and Abolition) Act (1970), the Equal Remuneration Act (1976), the Child and Adolescent Labour (Prohibition and Regulation) Act (1986), the Building and Other Constructions Workers' (Regulation of Employment and Conditions of Service) Act (1996).

[2]The Segregation Index is given by $SI = \frac{1}{2}\sum_i |p_{1i} - p_{2i}|$ where p_{1i} and p_{2i} are shares of ith NIC sector in GVA and Employment, respectively. The SI ranges from 0 to 1, with higher values implying greater levels of dissimilarity between GVA structure and Employment structure.

[3]The skill categories are defined as follows: *Unskilled*: less than four years of schooling without any vocational or technical education; *Low skilled*: 4–10 years of schooling with/without vocational education; *Medium skilled*: 12 years of schooling/completed any diploma or certificate course & some vocational training, technical diploma or certificate below graduate level; *High skilled*: graduate and above without any vocational or technical education or technical diploma or certificate above graduate level; ***Very high*** *skilled*: technical degree in any stream.

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