Chapter 2

# Who Is Looking for Work?

## Labour Force Participation, Unemployment and Migration

**Through sheer repetition, the belief has taken hold that one million are joining the labour force every month. However the fact is that after 2004, this number has been 2 to 2.5 million per year.**

**-Mehrotra (2018)**

Has the Indian economy been able to create enough employment for everyone looking to work? What is the profile of the average job seeker today? In this chapter we address these questions. We find that even though unemployment has traditionally been thought of as a problem of developed societies, not of much concern in poor societies like India, this is now changing rapidly. Unemployment levels have been steadily rising, and after several years of staying around 2-3 per cent, the headline rate of unemployment reached 5 per cent in 2015, with youth unemployment being a very high 16 per cent.

We will examine how certain categories of the population, other than the youth, are more likely to be unemployed and whether or not economic growth has reduced unemployment. We will also discuss the population that is not looking for work and look at its demographic composition. Finally, we will discuss issues of education, skill and migration that are connected to understanding and addressing the issue of unemployment.

We rely primarily on the most recent official Employment-Unemployment Survey (EUS) conducted by the Labour Bureau (LB) in 2015. Hence the last year in our analysis is 2015. Most trends are analysed for the four year period between 2011 and 2015. Since no data from the National Sample Survey (NSS) rounds are available after 2011 we have to compare the 2011 NSS-EUS data with the 2015 LB-EUS data. We believe this comparison is justified and give our reasons (as well as caveats) at the end of the report in the Methods chapter. After 2015, the only nationally representative household employment data are from a private source, the Bombay Stock Exchange-Centre for Monitoring the Indian Economy (BSE-CMIE) survey. We make use of these data but it should be kept in mind that these data are not strictly comparable to the Labour Bureau or NSS surveys.

## 2.1 / How Many Are Looking for Work? How Many Have Work?

We begin by defining some key labour statistics. The **working age population** consists of all people aged 15 years or more. Sometimes an alternative definition of ages 15 to 59 is also used. However, we prefer the former, since in the Indian context, a large fraction of the workforce has no official retirement age and continues to work beyond 60 years of age. The total working age population in 2016 was estimated to be around 926 million. In 2011 it was around 834 million (see Methods for calculations). This corresponds to an annual growth rate of 2.7 per cent.

The labour force is defined as people of working age who are either in paid employment or are actively seeking such employment. This excludes people who are in educational institutions, are doing unpaid domestic work, or do not wish to undertake paid work for any other reason. The workforce consists of people in paid employment of any kind including self-employment, casual labour, salaried work as well as unpaid work performed in the production of goods and services sold in the market.

In the Indian economy, most of the workforce does not have regular work all year round. Hence it is conventional to measure employment in two ways. Being employed in **'principal status'** means having work for at least six months in a year. **'Subsidiary status'** refers to a person's employment status between one and six months of the year. We start with an analysis at the aggregate level using principal and subsidiary status employment. For detailed analysis we will consider the principal status definition, and in section 2.1.3 we will discuss some characteristics of the people who are employed under subsidiary status but not under principal status.

Two key parameters needed to determine the amount of employment in the economy are the **labour force participation rate** (LFPR) and the **unemployment rate** (UR). The LFPR is the percentage of working age people who work or want work. The UR is the percentage of those in the labour force who want work but do not have it. Finally, the **worker population ratio** (WPR) is the proportion of working age people who have work. Household surveys such as those conducted by the NSS and the LB give us estimates of these key ratios. The absolute number of people employed are calculated by taking the LFPR and UR reported by sample surveys and applying these to estimates of the working age population projected from the Census.

It is important to keep in mind that these are rough estimates that can vary depending on the projected population. Different surveys may give slightly different estimates of the same ratios. For example, both the NSS and the LB conducted surveys in 2011. Table 2.1 gives the key ratios as measured by both these surveys for the same year. The observed differences are small, but since the size of India's working age population is very large, small percentage differences can mean large absolute changes. Box 2.1 discusses another such instance of disagreement between surveys and the implications thereof.

Table 2.1 : ***Key Labour Market Indicators, 2011 – 15***

| Year | Population > 15 years (millions) | LFPR (%) | Labour force (millions) | UR (%) | Unemployed (millions) | Workforce (millions) |
|---|---|---|---|---|---|---|
| 2011 (NSS) | 850.2 | 51.6 | 438.7 | 2.7 | 11.8 | 426.9 |
| 2011 (LB) | 850.2 | 52.9 | 449.8 | 3.8 | 17.1 | 432.7 |
| 2012 | 883.6 | 50.9 | 449.7 | 4.7 | 21.1 | 438.6 |
| 2013 | 900.4 | 52.5 | 472.7 | 4.9 | 23.2 | 449.5 |
| 2014 | 917.2 | - | - | - | - | - |
| 2015 | 926.0 | 50.3 | 465.8 | 5 | 23.3 | 442.5 |

Sources and notes: ***NSS-EUS 2011, LB-EUS various years.***

## Box 2.1 / **The State of Job Creation Since 2016**

As of September 2018, there are no nationally representative official survey data on employment since the Labour Bureau (LB) survey of 2015-16. Data from the new Periodic Labour Force Survey of the NSS are expected shortly. The news from private data sources such as the Centre for Monitoring the Indian Economy (CMIE) is not good. They report a decline in employment over the past two years, continuing the trend of declining employment observed since 2013 in government data (see Table).

***Total Employment and Labour Force Participation Rates***

| Year | Bhalla and Das Estimates | | | | CMIE Estimates | | | |
|---|---|---|---|---|---|---|---|---|
| | Employment (millions) | LFPR (all) | LFPR (M) | LFPR (F) | Employment (millions) | LFPR (all) | LFPR (M) | LFPR (F) |
| 2011 | 447.9 | 52.6 | 80.4 | 23.2 | - | - | - | - |
| 2013 | 443.3 | 51.3 | 75.6 | 25.5 | - | - | - | - |
| 2015 | 442.7 | 50.4 | 76 | 23.4 | - | - | - | - |
| 2016 | 450.8* | 49.8* | 76.5* | 21.6* | 403.5 | 46.7 | 72.6 | 12 |
| 2017 | 464.3* | 49.9* | 76.5* | 21.6* | 404.9 | 43.9 | 74.6 | 15.5 |

Sources and notes: ***2011- National Sample Survey; 2013 and 2015 – Labour Bureau; 2016 and 2017 – CMIE.***
**** – Estimates based on assumed (not measured) LFPR.***

A recent study by Bhalla and Das (2018) claims that the economy generated 13 million new jobs in 2017. If true, this goes against the declining employment story from CMIE and would indicate a much better performance than we have witnessed over the past several years. Unfortunately, this optimistic conclusion depends on selective use of data and unjustified assumptions.

Bhalla and Das argue that key parameters such as the LFPR and the UR estimated by the CMIE surveys are wrong and hence so are their workforce estimates. Indeed there is a large difference between the last available government numbers in 2015 and the CMIE numbers in 2016 and 2017 (see Table). According to the LB, 23 per cent of working age women were in the labour market in 2015. This number in 2017, according to CMIE, was 12 per cent. While female LFPR has been declining in India over the past several years (see Box 2.3), such large changes are not in keeping with the general trend. But we have no independent way of verifying whether the differences are due to survey method or some genuine reason.

However, Bhalla and Das deal with this issue arbitrarily by assuming that the rate of change in LFPR from 2013 to 2014 persists into 2014 to 2016. For 2017, they use the same number as for 2016. This gives them a much higher LFPR of 49.9 per cent for 2017 rather than the CMIE's 43.9 per cent.

The justification they provide for assuming a higher LFPR than revealed by the data is that economic conditions were much improved in 2017 as indicated by a falling unemployment rate in CMIE data. This is a very selective use of the data. In fact not only did the unemployment rate fall in this data, so did the LFPR.

The treatment of the unemployment rate is even less satisfactory, being dismissed in a few sentences towards the end of the paper. Unlike the LFPR, the actual UR used for calculations is not even discussed. Based on their reported workforce for 2017 (464.3 million) and the estimated labour force of 482.6 million for the same year, the implied unemployment rate comes to 3.8 per cent. This is much lower than 4.5 per cent that the CMIE survey finds.

In other words, Bhalla and Das simply assume a higher LFPR and a lower UR. If we assume that the percentage of people looking for jobs or having jobs has increased, and the percentage of unemployed has decreased then, by definition, we arrive at a robust job creation scenario. This method assumes away precisely that which needs to be established, namely, what the LFPR and the UR are in reality. This is even more critical for the past 2 years when policy measures such as demonetisation and GST have impacted the labour market in a big way. In times like these, simple projections from 2015 are likely to be wrong because economic conditions have changed vastly.

Sources and notes: ***https://www.hindustantimes.com/india-news/did-the-indian-economy-create-nearly-13-million-jobs-in-2017/story-2UJHNBwwAkC0rpLv65xFZI.html***

In addition to the two estimates for 2011, Table 2.1 gives the numbers for the past few years till 2015. Between 2011 and 2015, the estimated labour force (as per the principal status definition) increased from 438.7 million to 465.8 million, an increase of 27 million or 6.7 million a year. If we compare only LB surveys for both years, the increase is around 16 million or 4 million a year on average. However, the number does not capture the year to year fluctuations reported in Table 2.1. The large variation also indicates that survey numbers, particularly for the recent LB estimates, should be interpreted with caution. Taking a longer period of time we see that over the past two decades the Indian labour force has grown by around 1.2 per cent per year on average (Basu 2018).

There has been a controversy in recent years over the number of new entrants to the labour force every year. A common statistic that is seen in the media is that a million people join the labour force each month. Mehrotra (2018) shows that this number is based on earlier rounds of the NSS where the labour force increased by 12 million per annum from 2000 to 2005. However, between 2005 and 2011, this number was much lower at 2 million new entrants per annum. Since 2011 this has increased, but still remains much below 12 million per year.

Since such numbers have important policy implications, often used as targets for government policies, it is important to keep the margins of error as well as fluctuations in mind. A singular focus on the overall quantity of employment is also undesirable because it limits the attention of policy makers to just the aggregate number of jobs, rather than how good these jobs are, and the sector or demographic category to which they cater. For example, Mehrotra (2018) shows that from 2011 to 2015, while the labour force in the 15-29 year age group grew by 40 million, the labour force older than 29 years shrank by 30 million. This dramatic shift in the age profile of the labour force must be taken into account while making policy.

Let us now come to the workforce, or that fraction of the labour force which is currently employed. Over the same period that the labour force grew by 1.2 per cent per annum, the workforce or quantity of employment grew by 1 per cent. If we break this down further into approximately five year periods, we see that the labour force and the workforce have roughly kept pace with each other in all but the most recent period (Basu 2018 Table 1). Of course, this sets aside the question of which sector has been driving job creation, as well as the issue of the quality of work. We will return to these questions in later chapters.

In terms of the aggregate amount of employment, the period after 2011 is striking. In this period, while the labour force, as per principal status, increased at the compounded annual growth rate (CAGR) of 0.8 to 1.5 per cent (depending on the survey chosen), the workforce grew much slower at a CAGR of 0.5 to 0.9 per cent. Between 2013 and 2015, the workforce actually shrank by 7 million driven by a decrease in the labour force and an increase in unemployment (Abraham 2017). More recent data from the BSE-CMIE surveys shows that the absolute decline has continued past 2015. But these data have been contested as we discuss in Box 2.1 (Bhalla and Das 2018).

Table 2.1 shows two trends, both worrying. First, a smaller fraction of people are choosing to participate in the labour market, as seen by the falling overall LFPR, and second, out of those people, an even smaller fraction is finding employment, as seen by the rising unemployment rate. The second trend is much more unambiguously problematic. The traditional wisdom was that India's problem was not unemployment but low wages. Low wages are still a problem. But if the 2011-2015 performance is not an exception, we may have a new challenge on our hands — that of rising unemployment.

## 2.2 / Who Are the Unemployed? How Many Are They?

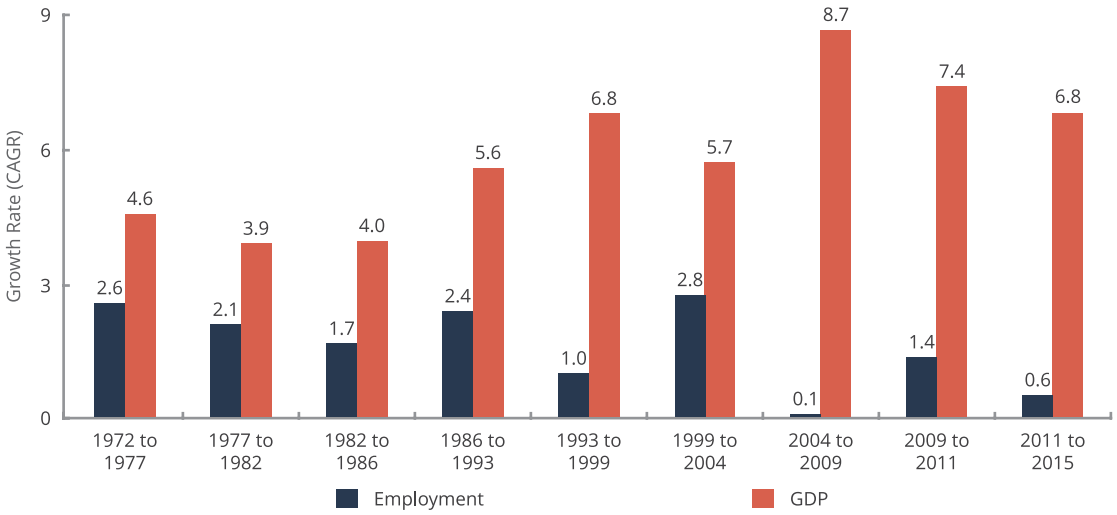
*Higher growth has raised aspirations but has failed to generate the kind of jobs that will allow people to fulfill those aspirations.*

The rising aspirations of India's youth, about which much has been written, of course arise from higher education, as discussed previously, and the rapid increase in national income. Unfortunately, even as GDP growth rates have risen, the relationship between GDP growth and employment growth has become weaker over time. The growth elasticity of employment, or the per cent change in employment for every per cent change in GDP, captures the effectiveness of GDP growth in delivering employment growth. It is important to keep in mind that there is no absolute standard against which to evaluate this number, unlike the relation between labour force growth and workforce growth where the two must match each other to prevent a rise in unemployment.

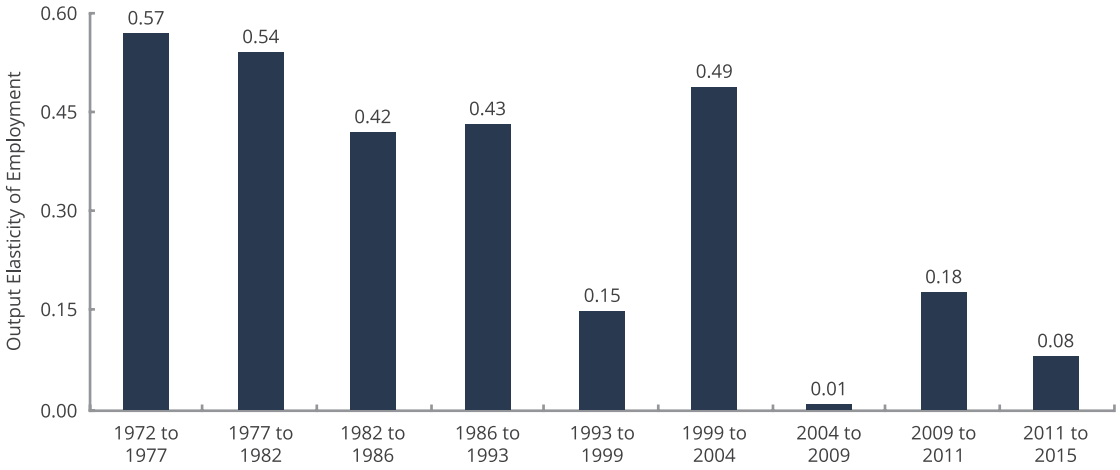
It is also worth noting that a rise in the productivity of labour, or the amount of value generated per worker, also implies a faster increase in GDP than in employment. If this is accompanied by rapid job creation as well, it means that greater output per person is shared among a larger pool of workers. However, the last ten years have been exceptionally poor at overall job creation (Table 2.1 and Figure 2.1). Simply put, higher growth has raised aspirations but has failed to generate the kind of jobs that will allow people to fulfill those aspirations.

Figure 2.1 : ***Growth Creates Fewer Jobs than It Used To***

a) ***Employment Growth vs GDP Growth***




b) ***Growth Elasticity of Employment***



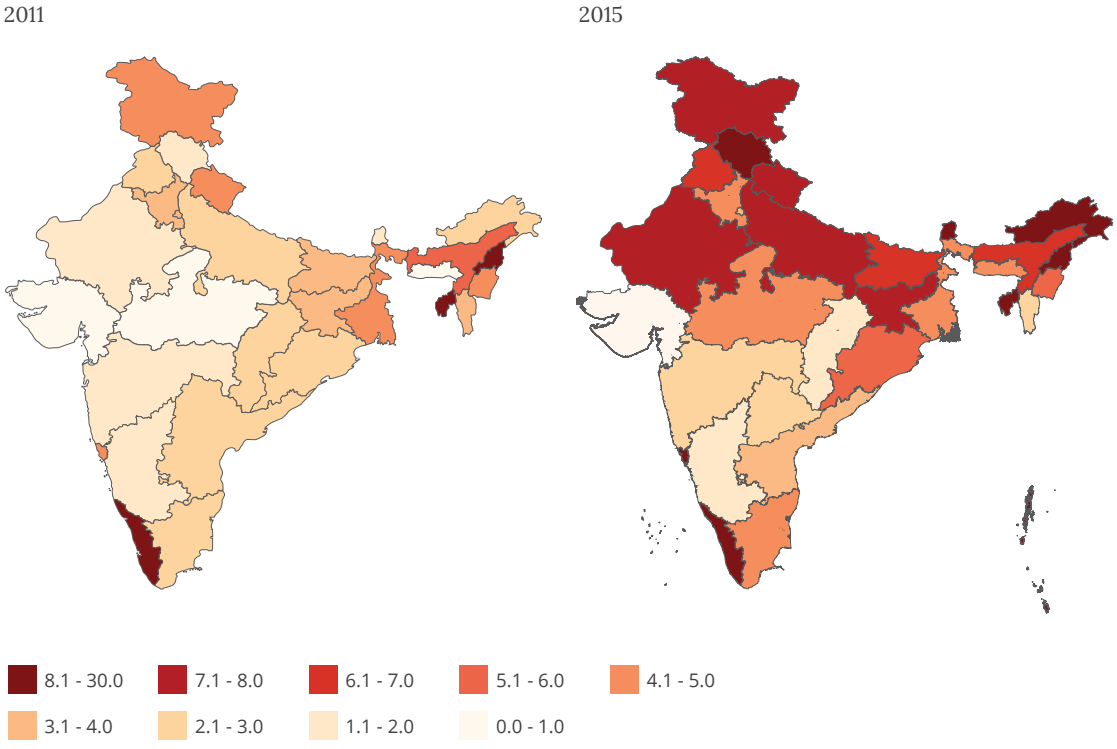

Sources and notes: ***1972–2011 from Misra and Suresh (2014); 2011–15 our calculations.***

The unemployment rate, as mentioned earlier, is the share of the labour force that is not part of the workforce. By the principal status criterion, these are persons over 15 years of age who are looking for work but do not have at least six months of employment. This proportion in 2015 was 5 per cent, up significantly from the much lower 2.7 per cent as per NSS and 3.8 per cent as per the Labour Bureau in 2011. This rate of unemployment is the highest seen in India in at least the last 20 years. If we use the more lenient subsidiary status definition of employment to include those employed at least for a month, then the unemployment rate is 3.7 per cent, which has also grown from 2.1 per cent in 2011.

What do more recent data say? High frequency data on unemployment are available from the BSE-CMIE surveys. As per these data, the employment rate in June 2018 stood at 5.7 per cent.[1] While these data cannot be directly compared to LB or NSS data, the high rate of unemployment is nonetheless worrying, especially in the face of a declining LFPR. This implies that although the proportion of the working age population that is looking to work is falling, a larger fraction of those looking are not finding work. This raises the possibility that as the labour force participation rate stabilises, the unemployment rate may shoot up even more.

Figure 2.2 shows the unemployment rates across states according to the principal status criterion in 2011 and in 2015. The increase in unemployment rate is evident. With the exception of a few states like Chhattisgarh, Gujarat and Karnataka, the situation has worsened everywhere, with the problem being particularly acute in the northern states (see online Appendix Table A2.1 for data).

Figure 2.2 : ***Unemployment Has Risen in Almost All States across India***




Sources and notes: **NSS-EUS 2011 and LB-EUS 2015. *Employment is defined as per usual principal status. Scale indicates per cent values. Note that the following outlying states have been placed in the top bracket: 2011- Kerala (9), Tripura (14.5), and Nagaland (25.6). 2015 – Nagaland (8.5), Arunachal Pradesh (8.9), Goa (9.6), Himachal Pradesh (10.6), Kerala (12.5), Sikkim (18.1) and Tripura (19.7). See Appendix Table A2.1 online for data.***

[1] From unemployment rate in India.

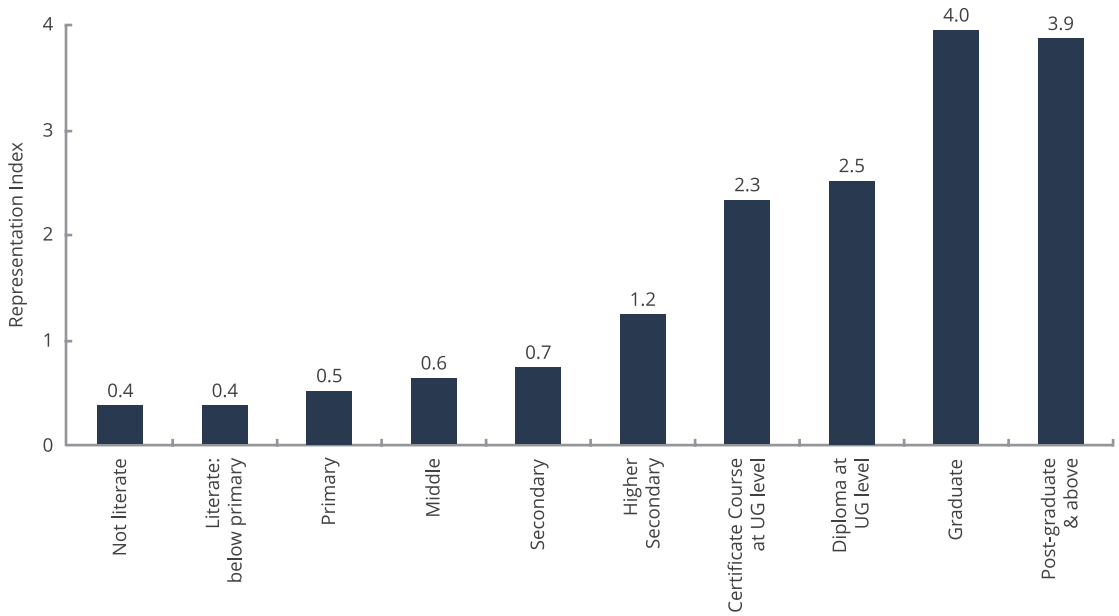
***The number of people with a graduate or higher degree, who are looking for a job, is roughly equal to the entire population of the city of Bengaluru.***

Who were these roughly 23 million people who said that they were actively searching for jobs but did not have even six months of employment? We provide detailed tables showing the demographic characteristics of this group in the online Appendix (Tables A2.2). 9 million, or more than one-third of the people in this group have graduate or higher levels of education. Since there are 55 million people in the labour force with graduate or higher degrees, this says that almost one in six of them is unemployed. Figure 2.3a plots a 'representation index' of each educational category. This index is a ratio of the share of each category among the unemployed to their share in the working age population. The ratio being more than one implies that that category is over-represented in the unemployed group. As is evident from the graph, this 'representation index' increases with an increase in education level. Graduates are more than a third of the unemployed but less than 10 per cent of the working age population.

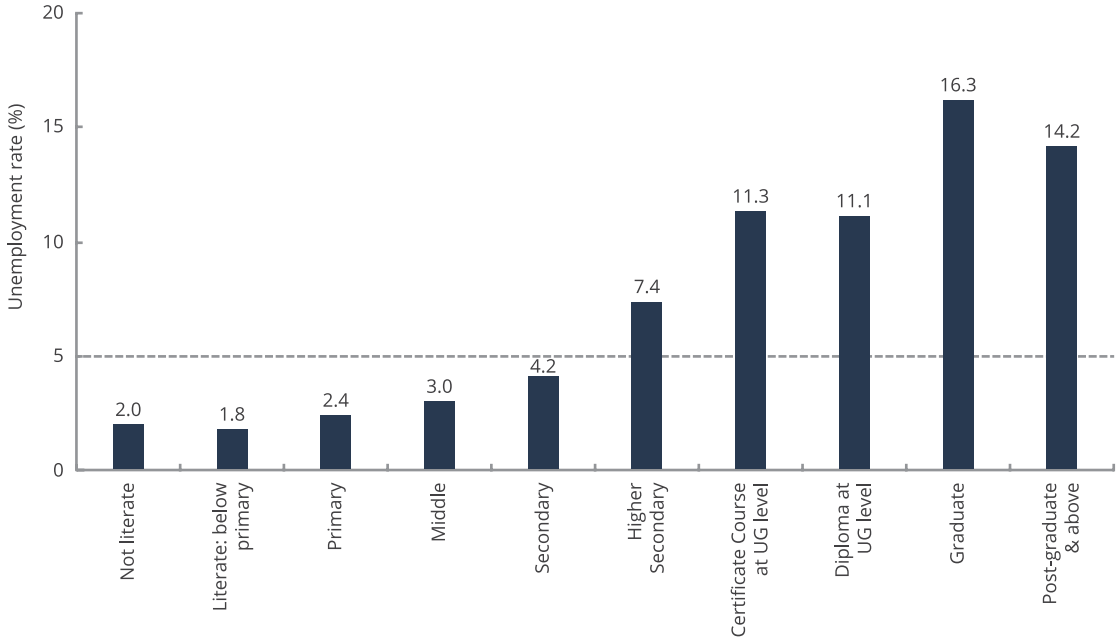
The number of people with a graduate or higher degree who are looking for a job is roughly equal

Figure 2.3 : ***The Crisis of the Educated Unemployed***

a) ***Over-Representation of the Educated among the Unemployed***




b) ***Unemployment Rate among the Educated is Three Times the National Average***




Sources and notes: **LB-EUS 2015.** ***Reference line indicates average.***

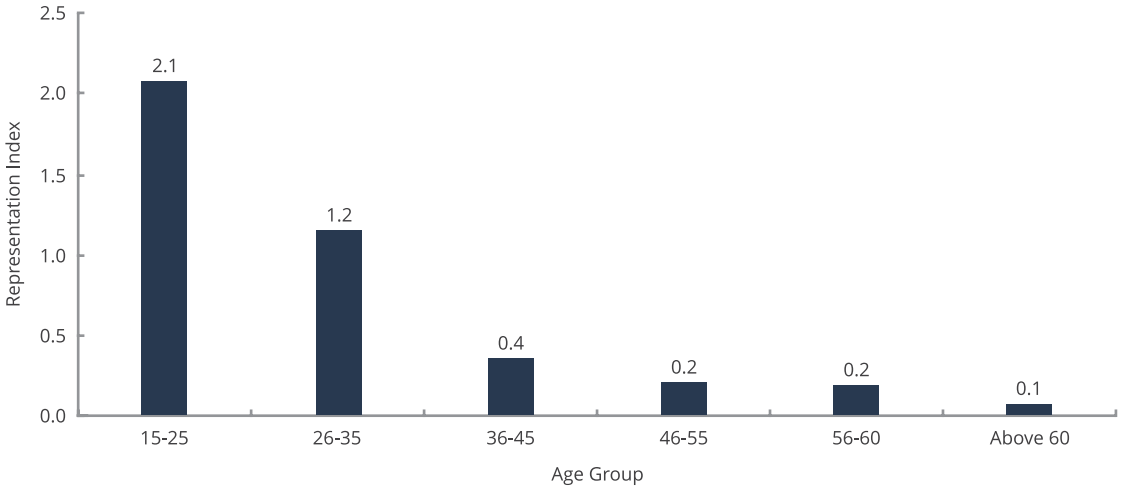
to the entire population of the city of Bengaluru (population 8.5 million according to the 2011 census). Unemployment among this population is three times the national average (Figure 2.3b).

These highly educated unemployed people also overwhelmingly report that the reason for unemployment is that they did not find a job that matched their skills. This obviously points to the issue being not only one of job creation, but of the creation of decent and desirable jobs. This aspect of the quality of jobs will be discussed in more detail in Chapter Four. There is also the other side of the issue which is to do with the quality of education and the employability of college graduates. We will deal with this issue later in this chapter.

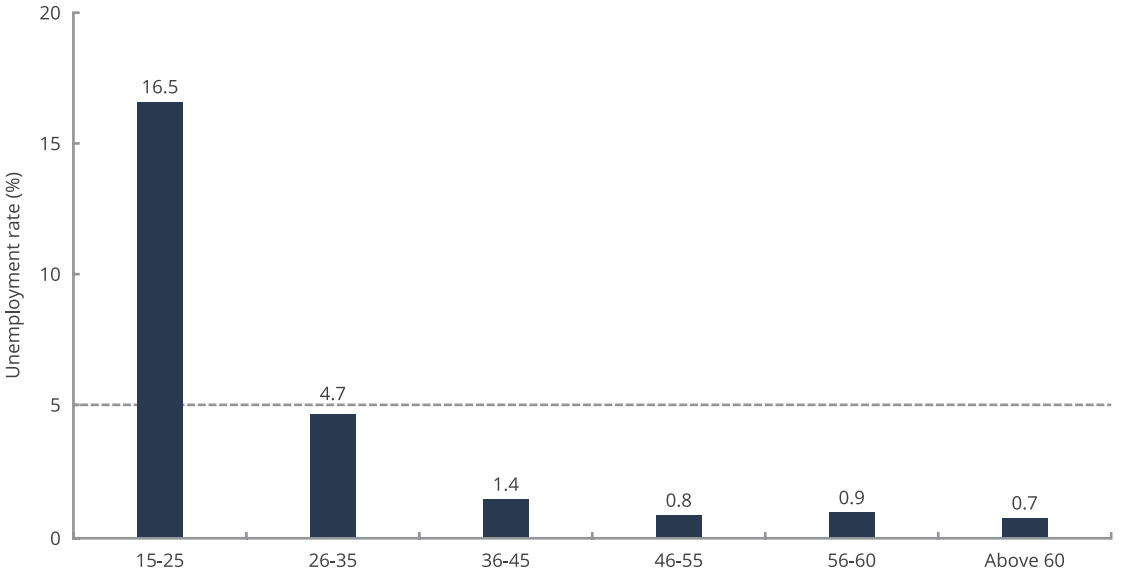
The unemployed are also disproportionately young. More than 60 per cent of them are in the 15-25 year age group. In contrast, this group constitutes only 30 per cent of the total working age population. Also, they are largely male (60 per cent of the unemployed are men). So, what we have is a larger than ever before population of educated young unemployed men, which is a cause for concern. Figure 2.4a shows the representation index along age categories and again it is evident that the young are highly overrepresented in the unemployed population.In fact, if we look at the unemployment rate in just the 15-25 year group, it is much higher at 17 per cent, similar to the rate amongst the college-educated (Figure 2.4b).

Figure 2.4 : ***Youth Unemployment***

a) ***The Youth Are Over-Represented among the Unemployed***




b) ***The Youth Unemployment Rate Is Three Times the National Average***




Sources and notes: ***LB-EUS 2015. Reference line indicates average.***

This phenomenon of mass unemployment among educated, young men is manifested in various ways. Consider the fact that almost every public sector recruitment drive is massively over-subscribed. For example, in early 2017, the West Bengal government held an examination for 6000 jobs in the Class IV or Group D category, the lowest category of permanent employment in government service. 2.5 million appeared for the exam, many of them holders of graduate and postgraduate degrees. In 2015, 2.3 million applied for around 400 Class IV jobs in Uttar Pradesh, of them 150,000 graduates[2]. Such examples may be multiplied.

Another way the clamour for jobs has manifested is in mass youth rallies across the country demanding reservations in government jobs. Strikingly, these have been mostly led by youth from traditionally dominant agricultural castes such as Patels, Marathas, Jats, and so on. Even a relatively better performing state such as Karnataka saw a major political campaign on the jobs issue in the lead up to its 2018 assembly elections (see Box 2.2).

Finally, with respect to the characteristics of the unemployed, the distribution along the dimensions of caste and family income is not very different from the overall working age population. The conventional wisdom has been that people with social or economic support can afford to stay unemployed. In the case of family income, the issue could be the large bin sizes in the LB-EUS (₹11,000 and ₹20,000 are in the same category) that flatten most of the variation. But this still leaves the caste issue, which is worthy of further research.

### Box 2.2 / The 'No Jobs, No Votes' Campaign by Karnataka for Employment

Although the headline rate of unemployment in Karnataka is lower than the rest of the country, the type and quality of jobs leave a lot to be desired. The recent assembly elections of 2018 saw the emergence of a 'No Jobs, No Votes' campaign conducted by a group called Karnataka for Employment. In their Youth Manifesto, the organisers noted that, as in most of the country, 80 per cent of workers in the state were either self-employed or worked as contract and casual labour. Further, the majority of the self-employed earned less than ₹7,500 per month, as per the Labour Bureau, suggesting that this is a form of distress employment, in the face of lack of other regular/formal opportunities. The resulting demand for the security of a government job is reflected in the fact that 1.8 million applicants applied for less than 2,500 jobs in the 2015 state public service commission examinations.

The movement's aim was to hold the government responsible and demand policies that directly lead to job creation by putting public pressure on the contesting political parties. The parties were asked to adopt the key points of the Youth Manifesto. The fact that such a campaign was able to attract support in Karnataka, which is one of the few states where unemployment has not increased significantly, shows that there are increasing chances of such organised action happening in the rest of the country.

[2] Job drought: 2.5 million candidates vie for 6000 Group-D posts in West Bengal and 23 lakh apply for 368 peon posts in Uttar Pradesh.

## 2.3 / Who Participates in the Labour Force?

In a developing economy, the LFPR is determined by a series of complex economic, institutional and cultural factors. It registers an increase as more people enter the labour market looking for paid work, and spend less time in subsistence activities producing for their own consumption. But it registers a decrease if people, especially those of school and college going age, choose to attend educational institutions rather than work. Similarly, it is possible that with economic growth women could either enter or leave the labour force depending on cultural preferences. In India, the LFPR has been either stagnant or declining over the past few years. As per the Labour Bureau, in 2015 the LFPR was 50.3 per cent. For 2011, we have two estimates, one from the NSSO (51.6 per cent) and one from the Labour Bureau (52.9 per cent).

*Among comparable large developing countries, India's female LFPR stands out as one of the lowest. In addition, it has been declining over the past few years.*

Thus, as pointed out earlier, the labour force is growing at a much slower rate than the working age population. Most of the difference appears to be due to more young people taking up higher studies. Of course, while this reduces the growth of the labour force today, these people will join the labour force after finishing their studies and are going to expect jobs commensurate to their level of education. Some of this can already be seen in the 2015 data, as discussed in the previous section.

India's labour force participation rate is low by international standards, driven mainly by very low participation of women. Figure 2.5a shows the relationship between male and female LFPR using data from the International Labour Organisation (ILO). Almost all the countries in the dataset lie below the dotted line of equality indicating a universal tendency for female rates to be below male ones. Countries below the blue line of best fit are the ones where female LFPR is below average given their male LFPR. India (IND, in red) appears at the bottom right along with other South Asian countries like Pakistan and several middle eastern countries.

Among comparable large developing countries, India's female LFPR stands out as one of the lowest (Figure 2.5b). In addition, it has been declining over the past few years. This has given rise to a large literature, some of which is discussed in Box 2.3.

In summary, while men are openly unemployed, women are not even part of the labour force. These constitute distinct challenges for employment policy.

It is somewhat misleading, however, to discuss female LFPR at the national level, because this average hides large state-level variation. Labour force participation in general is higher in southern states, but the difference is even more stark for women (Figure 2.6). The female LFPR varies from a low of 11 per cent for Punjab and UP to over 50 per cent for the north-eastern states and Chattisgarh. The wide variation in gender disparity of labour force participation can be gauged from the female to male LFPR ratio which varies from less than 0.2 to greater than 0.7 (Figure 2.7).

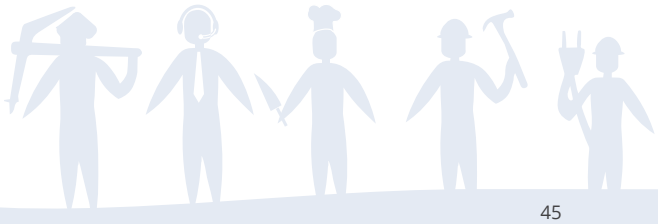
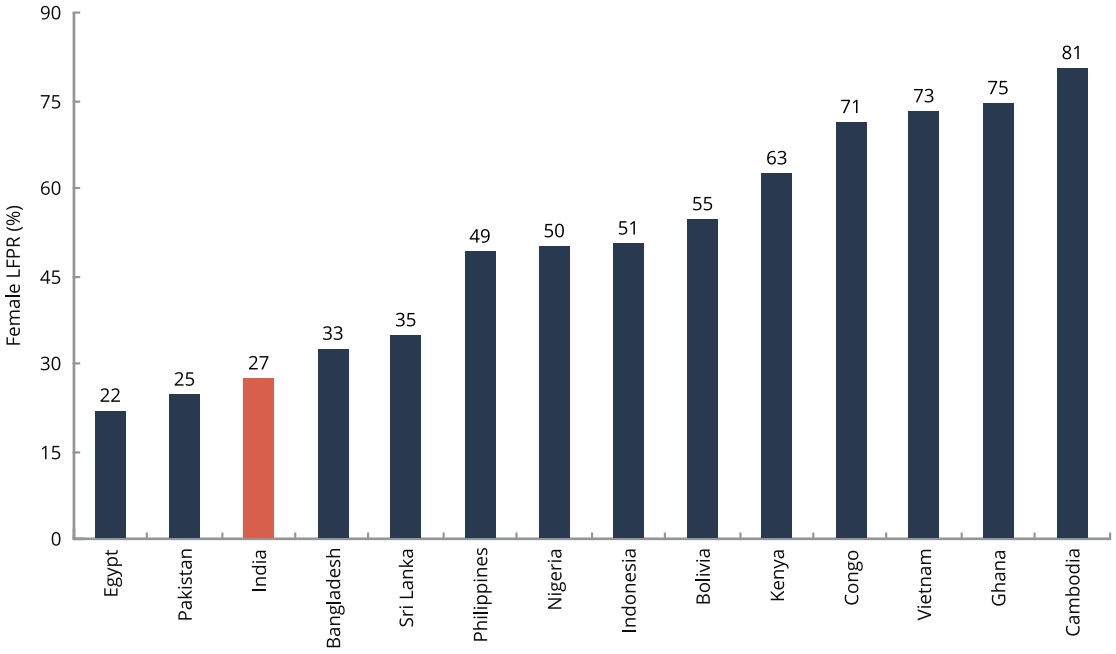


***Figure 2.5 : Female Labour Force Participation Rate in India Is Much Lower than Comparable Developing Countries***

a) ***...the Global Average***


b) ***...Comparable Developing Countries***




Sources and notes: **ILOSTAT (2017).** ***Female LFPR = (number of women in the labour force/number of working age women). Dashed line represents equal levels of Male and Female LFPR, Blue line is the line of best fit.***

## Box 2.3 / **The State of Working Women in India**

*Rahul Lahoti*

India's female labour force participation has declined precipitously over the last two decades. As per the International Labour Organisation's international database, ILOSTAT, India ranks 121 out of 131 countries in this respect. This period saw an average GDP growth rate of 6 to 7 per cent per annum, a fertility rate decline from 3.9 in 1990 to 2.6 in 2011 and an increase in the years of schooling among females. In many other countries, all these factors have led to an *increase* in female labour force participation.

Various studies have pointed to a negative income effect, increase in women's education, and husband's education as the major drivers of the decline (Das et al. 2015; Klasen and Pieters 2015; Sorsa et al. 2015; Afridi, Mukhopadhyay, and Sahoo 2016; Mehrotra and Sinha 2017). Increase in husband's income has driven households to withdraw women from the labour force. Women working outside the household are seen as a negative status symbol in a patriarchal society and they are used as reserve labour force to be used only in times of distress (Himanshu 2011).

Increasing women's education, surprisingly, has worsened the decline. Several studies have observed a U-shaped relationship between own education and labour force participation (Das and Desai 2003; Afridi, Mukhopadhyay, and Sahoo 2016). LFPR is lowest for women with secondary education and increases for those who are college-educated or have a graduate degree. A large proportion of Indian women now have secondary education, but a small fraction have higher education. Educated women might be dropping out of the labour force as their productivity in household work – specifically raising children – increases. Another argument is that secondary educated women do not want to jobs requiring 'menial' physical labour but do not have the skills to do other white collar jobs in the service sector. Marriage and having children also reduces the likelihood of women participating in the labour market.

Women workers have also had a difficult time moving out of the rapidly shrinking agricultural sector and obtaining other non-agricultural jobs (Chand and Srivastava 2014; Kapsos, Silbermann, and Bourmpoula 2014; Chatterjee, Murgai, and Rama 2015). This is because female-friendly labour-intensive jobs have seen less growth in India, especially in rural areas. The lack of shift in the Indian economy towards manufacturing and the low share of women in the manufacturing sector have hurt the chances of women finding paid work outside agriculture (Lahoti and Swaminathan 2016). Displacement from agriculture and lack of opportunities in the non-farm sector have thus acted together (Mehrotra and Parida 2017). Also agricultural work provides flexibility for women to manage work, household and care responsibilities, which other jobs (if available) do not provide. In a patriarchal society with little sharing of household responsibilities between men and women, the lack of flexibility in non-agriculture jobs acts a big deterrent for women to go outside the household and work (Rani and Unni 2009).

The low level of female participation in the workforce and the decline in their participation rate can and must be reversed through policies promoting female-friendly sectors in the economy, reducing educational and occupational segregation and tackling the social stigma associated with women working outside the house.

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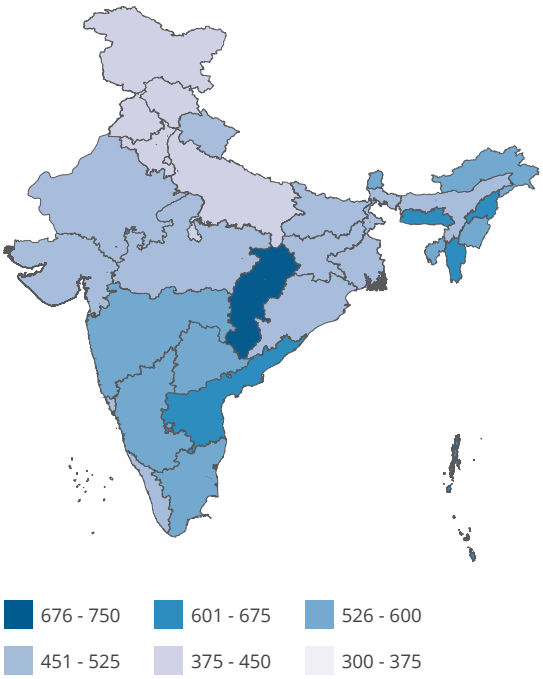
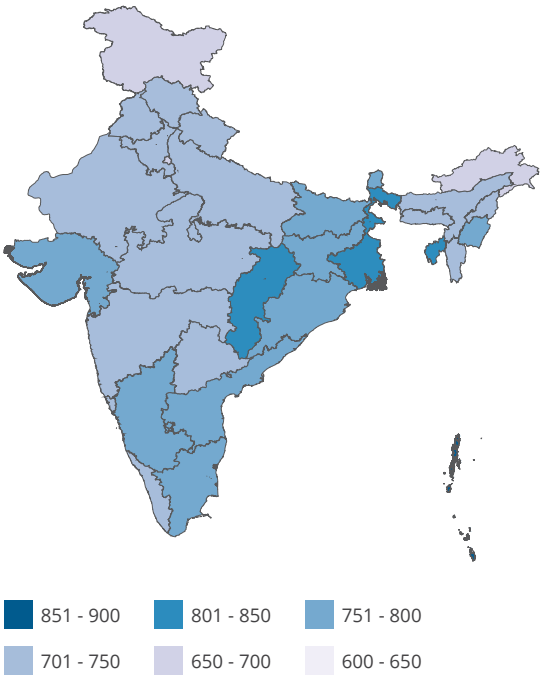
Figure 2.6 : ***LFPR, Particularly for Women, Is Higher in the South and the North-East***

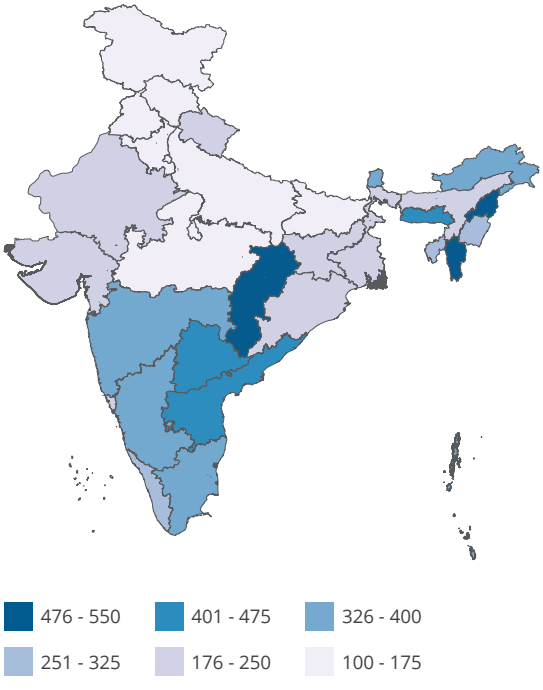
Overall




Male

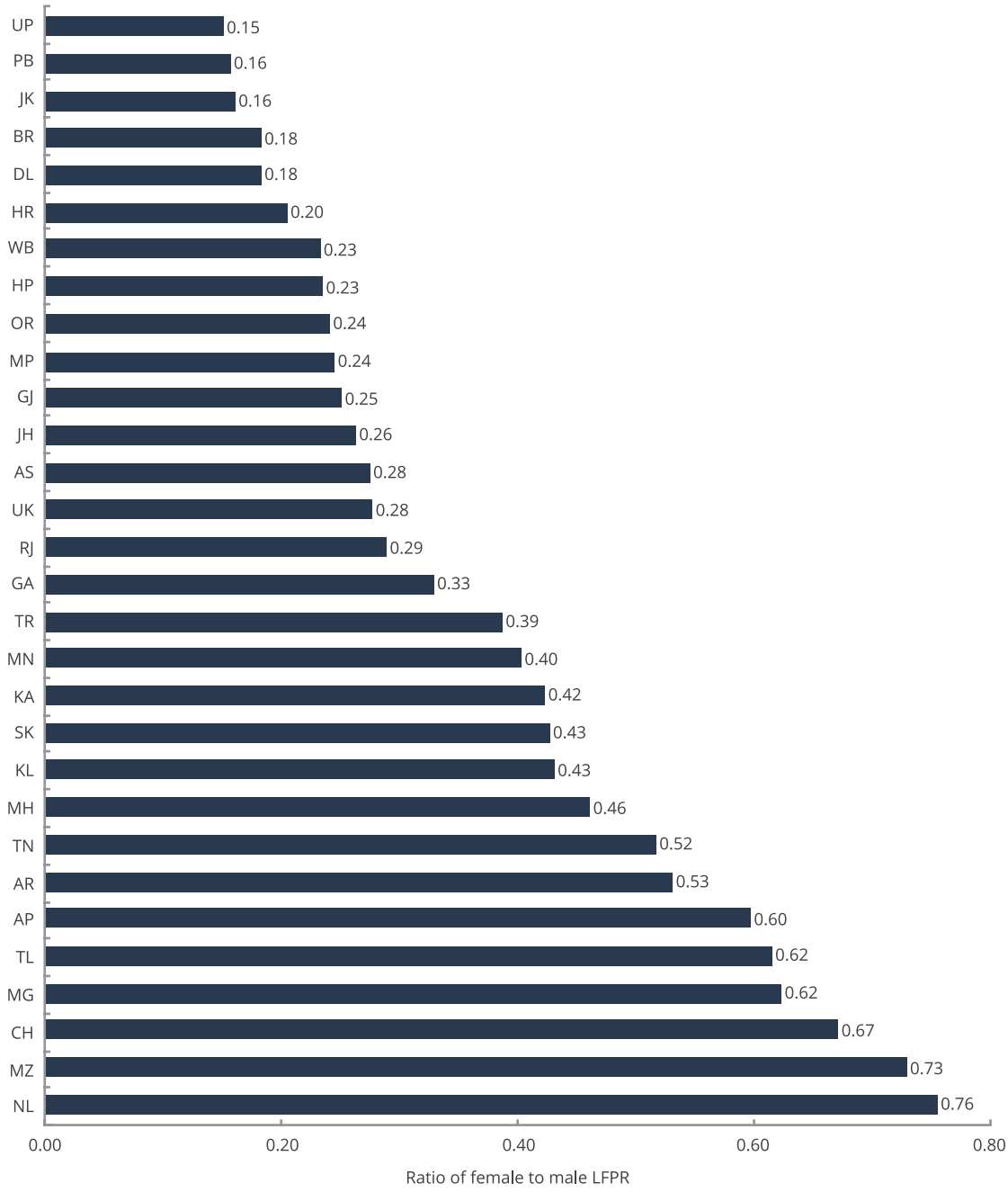



Female




Sources and notes: ***LB-EUS 2015. LFPR values are out of 1000. Note that scales differ. See Appendix Table A2.3 online for data.***

Figure 2.7 : ***Gender Disparity in Labour Force Participation Varies Significantly across States***




Sources and notes: **LB-EUS 2015.** ***Refer Table of Abbreviations for state codes.***

As discussed earlier, we have only considered workers who were employed for 6 months or more. But there is also information on people who were employed for at least 1 month but for less than 6. Three-fourths of these are women, more than 80 per cent of whom are engaged in domestic duties as their principal activity. Amongst the men, a little less than 60 per cent report seeking work as their principal activity, that is, they will be part of the labour force but are unemployed according to the principal status definition of employment. Another 24 per cent are in educational institutions.

The people of working age who are not in the labour force, that is, they are neither working nor actively seeking employment, could be engaged in studying or in unpaid work like care work, among other things. The age profile of the group is interesting. There is a disproportionate representation of the youngest and the oldest age groups, that is to be expected. More people older than 60 years would drop out of the labour force because of age and more people younger than 25 years would choose to stay out of the labour force to study (Table A2.4 of online Appendix).

The key thing to note is that this group is overwhelmingly female and is largely engaged in household work. When we look at men and women separately, the difference in activities becomes quite clear. More than 60 per cent of the men of working age who are not in the labour force are attending educational institutions. They are also much younger, with more than two-thirds being in the 15-25 age group. The picture is quite different for women. More than three-fourths of them are engaged in domestic duties only. And their age profile is quite similar to that of the overall working age population, indicating that there is no age-specific selection out of the labour force among women. Indeed, if we take into account unpaid work, then the picture changes dramatically. Mondal et al. (2018) contend that to account for the work women do in India, the definition of work needs to be revisited (Box 2.4).

## Box 2.4 / **Defining Work from the Perspective of Women Workers**

In their SWI background paper, Mondal et al. (2018) contend that to account for the work women do in India, the definition of work needs to be revisited. Economic definitions of work invariably link it to production of goods and services. There is disagreement on whether or not to include work such as domestic work and care work in this definition. The authors argue that these do need to be included in the definition of work, and employment defined as work for pay or profit is only a subset of this larger definition.

Changing the definition of 'work' also has an impact on measurement of the participation of women in the labour force (see Box 2.3). Currently, the NSS employment-unemployment surveys categorise the following types of individuals as being outside the labour force: attended educational institutions, attended to domestic duties only, attended to domestic duties and was also engaged in free collection of goods (vegetables, roots, firewood, cattle feed, etc.), sewing, tailoring, weaving, etc. for household use, rentiers, pensioners, remittance recipients, etc., not able to work owing to disability, others (including beggars, prostitutes, etc.), did not work owing to sickness (for casual workers only), children of age 0-4 years.

The study argues that workers who performed domestic work (NSS status code 92) and/or other subsistence activities (code 93) as their principal occupation, should be considered as working. On including these three codes, the authors find that not only is women's labour force participation higher than that of men, but also that there is no difference in the trends over time. In fact, an increase in the proportion of women reporting that they are engaged in activities corresponding to codes 92 and 93 compensates for the decline in the proportion in paid employment.

Sources and notes: ***Mondal et al. (2018)***

As with the unemployment data, there does not seem to be any change in the caste or family income distribution of this group, either overall or by gender, when compared to the total working age population.

The distribution of activities of this group shows no evidence of 'discouraged workers,' that is, those who are educated but have dropped out of work force because they could not find jobs. But this may be due to the fact that the surveys do not probe deep enough into reasons for being out of the labour force, and also do not elicit data on previous attempts at getting employment. It is also possible that what appears as an increase in workforce in agriculture, (details in Chapter Three) that is counter to the trend, represents disguised discouraged workers unable to find work elsewhere.

## 2.4 / Education and Skill

As we have seen above, one of the reasons for the slow growth of the labour force is that more youth are remaining in education. In recent years there has been a steep increase in India's higher education gross enrolment ratio (GER), that is, the percentage of youth of the age 18-23 years enrolled in a higher education institution. After increasing slowly for several decades to a level of around 12 per cent in 2005, the ratio has climbed to 21 per cent in 2011 and then to 24.5 per cent by 2015 (see reports of the All India Survey on Higher Education). Between 2011 and 2015, the GER rose by 3.7 percentage points. Evidently, this explains the slow increase in the labour force as compared to the working age population.

***In recent years there has been a steep increase in India's higher education gross enrolment ratio (GER) from 12 per cent in 2005 to 24.5 per cent in 2015.***

There is also a substantial state-level variation in this number (Table A2.5 of online Appendix). States like Kerala, UP and Jharkhand have seen an increase of 7 percentage points or more compared to the all-India number of 3.7 percentage points. States with already higher enrolment ratios, like Tamil Nadu, Andhra Pradesh and Telangana, need to plan ahead in terms of adequate employment generation for emerging graduates. Both caste and gender dimensions of higher education are clearly visible here. Enrolment ratios for SC and ST populations, and for women within each section, are much lower than the overall ratio.

With the proliferation of higher education institutions as well as rapidly growing enrolment, the major question in policy circles as well the popular press has been the quality of education being delivered: specifically, whether it is preparing the youth for a rapidly changing job market. There have been periodic small surveys, often carried out by 'head-hunting' or recruitment firms, that assess the employability of recent graduates. Mostly these have reached pessimistic conclusions. A recent study of 150,000 engineering graduates by a Delhi-based employment-solutions company, found that barely 7 per cent were suitable for engineering jobs. Another, by the Associated Chambers of Commerce of India, also found that around 7 per cent of the thousands of graduates emerging from the country's 5,500 business schools each year were employable.[3] Employers are increasingly finding it necessary to run training programmes of several months or longer in order to bridge the gap between college training and ability to work.

There are now no takers for nearly half of all available seats at engineering colleges nationwide. And there is a general prevailing sense of panic among policy-makers as well as the public that there is a large 'skill deficit' in the Indian labour force. Recently, large government efforts have been made to upskill the workforce through schemes such as Skill India (officially Pradhan Mantri Kaushal Vikas Yojana or PMKVY).

Unfortunately, however, there are no large-scale, representative surveys that assess either the preparedness of Indian college graduates for jobs or the effectiveness of skilling programmes in making youth employment-ready. This is a large lacuna in the data ecosystem.

Looking beyond the world of college education or other formal higher education programmes, there is also a need to rethink the concept of 'skill' itself. Field surveys indicate that substantial skill acquisition as well as updating occurs

[3] Only 7 per cent engineering graduates employable: What's wrong with India's engineers? and B and C category B-schools producing un-employable pass-outs: ASSOCHAM.

informally and 'on-the-job' (Basole 2015b). It is, therefore, a serious mistake to confuse skills with years of formal education. More creative policy approaches that draw directly on the vast store of informally acquired knowledge and skills, the 'lokavidya' of the Indian workforce are needed (Basole 2018).

In this regard, programmes such as 'Recognition of Prior Learning' (RPL) that confer official certification on existing skills are worthy of support, and much can also be learnt from other countries that have experimented with subsidies for apprenticeships in the informal sector. While RPL is indeed part of India's skill ecosystem, it does not occupy a position of much importance

## Box 2.5 / **The Fourth Industrial Revolution**

In her SWI background paper, Srija (2018) discusses the potential impact of the Fourth Industrial Revolution on the Indian labour market.

In LB-EUS 2015, 58 per cent of graduates and 62 per cent of postgraduates who are actively looking for jobs cited non-availability of jobs matching with their education, skill, or experience as the reason for unemployment. This shows that the challenge is not just to create jobs but the right kind of jobs. Srija argues that the fast changing technological environment may offer an opportunity to do just that.

More than 1 lakh gram panchayats out of a total of around 2 lakh have been connected through optical cables as of March 2018. About 24 per cent of the population of the country has access to the internet through their mobile phones, with the number increasing every year. Increased connectivity has also been accompanied by collection of a huge amount of data from the users of these services. Srija argues that this presents an opportunity for creation of jobs in firms that use the connectivity as well as 'Big Data' to provide innovative services to consumers. She gives the example of Byju's learning app that has become a 'unicorn' – a term used to refer to startups that are valued at over 1 billion US dollars - within 3 years of its launch.

But to tap into these new opportunities, a workforce with the right kind of knowledge and skills would be required. Despite the improvements in the area of primary education over the last few years, there are still some major problem areas that need to be addressed. Srija identifies three main ones –

1. Problems of access: Although access to primary schools has improved substantially and is nearly universal, the same is not true for upper primary and secondary schools. In rural areas, just 36.7 per cent of the households have access to a secondary school within a distance of 1 km.

2. Problems of dropout: While enrolment in primary education is near universal, a large number of students drop out by the time they reach secondary or higher levels of education. For example, in the 5-15 age group the proportion of students dropping out is 60.3 per cent in rural areas and 43.3 per cent in urban areas. The reasons given for dropping out included employment in economic activities, financial constraints and lack of interest in education.

3. Choice of educational stream: The proportion of students in higher education who opt for professional/technical courses was 12.6 per cent and those going for vocational courses was 2.4 per cent in 2014. Srija argues that this compounds the earlier problems as out of even the few students who reach the level of higher education, 85 per cent opt for streams that do not give them the skills that would increase their employability in these areas.

A number of government schemes are attempting to solve these problems but the sheer scale of the challenge means that a lot more needs to be done. Policy measures suggested include stipend-driven courses, night classes, and on-the-job classes of re-skilling and up-skilling along with a job market oriented curriculum.

Sources and notes: ***Srija (2018)***

(Mehrotra 2014). Policy focus has been mostly dominated by short-term skilling and certification programmes whose ability to deliver marketable skills is questionable. The 2016 Sharda Prasad report on the PMKVY is particularly critical of this model (Ministry of Skill Development and Entrepreneurship 2016).

## 2.5 / Migration

The study of economic migration in India is afflicted with the standard problems of scarcity of reliable data. But unlike other processes, it is also tinged with a normative ambiguity about the appropriate policy response to it. One view is that migration should be encouraged to further structural change, while the other view is that it is a symptom of severe rural distress and hence needs to be addressed so as to allow people to find employment without the stress generated by migration in both sending and receiving locations.

The Economic Survey of 2016-17 (Ministry of Finance 2017) presented a comprehensive analysis of inter-state migration. Census 2011 counts the number of self-reported economic migrants as 51 million, which had increased at the rate of 4.5 per cent a year from the 2001 number of 33 million. This number is around 10 per cent of the labour force, increasing from 8 per cent in 2001. But there are two key problems with the Census numbers. First, it only captures long-term migration and does not include the substantial numbers of short-term migrants who undertake what is sometimes referred to as 'circular migration.' Second, the status of women migrants is frequently underreported because when they migrate with their family for economic reasons, they may state the reason as 'marriage' or 'moved with household.'

*While most studies agree that the rate of out-migration of men from rural areas is around 5 per cent, there is disagreement about whether this is high or low.*

To correct for at least the second problem, the Economic Survey adopts a different methodology. First, it uses the difference in the population of 10-19 year olds in 2001 and that of 20-29 year olds in 2011, corrected for mortality rates, as a measure of net migration (and similarly for 1991-2001). This leads to an estimate of 55 million, which is clearly an underestimate as only net migration is accounted for. But the inter-state differences are interesting. Bihar and UP, unsurprisingly, are the major sending states. But Maharashtra and Delhi have been replaced by Tamil Nadu and Kerala as the major receiving states, signalling a geographical shift in where the net demand for workers lies.

The survey also uses rail ticketing data to estimate net migration at an annual level, thus it is more likely to capture short-term migrants. The average yearly migration between 2011-12 and 2015-16 is estimated at 9 million.

Perhaps a more important indicator of the changes in the economy is the state of rural-urban migration. While most studies agree that the rate of out-migration of men from rural areas is around 5 per cent (Munshi and Rosenzweig 2016), there is disagreement about whether this is high or low. Munshi and Rosenzweig compare this to the rural-urban migration rate in Brazil which was 13.9 per cent. Tumbe (2016) compares it to similar rates in the Age of Mass Migration in nineteenth century Europe. Munshi and Rosenzweig contend that the migration rates are low despite urban wages being substantially higher than rural wages because of caste-based insurance networks in villages that potential migrants do not want to move away from. Tumbe argues that it is not just the quantity of migration that matters. As the migrants are mostly male, it creates a situation of 'missing men' in the source regions which has important implications for the women left behind.

Large scale distress migration is not desirable and programmes like the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) have been shown to reduce such migration (Imbert and Papp 2018). This noted, a long term permanent shift of workers from surplus sectors like agriculture to either manufacturing or services is inevitable in an economy undergoing structural change. The question is: can it be achieved by creating jobs in different regions and in rural areas?

## Box 2.6 / The Mahatma Gandhi National Rural Employment Guarantee Act

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is the largest programme of its kind in the world and has undoubtedly had a major effect on the lives of millions of people in the country. A survey of the entire literature on the programme is beyond the scope of this report (see Sukhtankar (2016) for a survey of the economics research on the programme). Here we will try and present a broad picture of the importance of the programme.

As of 2014-15, more than 121 million households were registered under the programme and more than 2 billion person days of jobs were generated. Over the last decade of its existence, MGNREGA has led to an increase in market wages and a decrease in short-term migration. It has provided insurance against rainfall shocks and offered higher than market wages to women (Imbert and Papp 2015; Imbert and Papp 2018).

However, there are important problems in the implementation that are reducing the potential gains that could be obtained from the programme. The most important one is that despite the programme having been designed as demand-driven and to provide work to whoever demands it, it is actually supply-driven. This implies that jobs are given as and when funds are available, or when the administration is able to implement projects. This leads to rationing of jobs, that is, the provisioning of jobs to only a fraction of the people who demand it. The proportion of job applicants who did not get a job has been estimated to be as high as 40 per cent (Dutta, Murgai, and Ravallion 2012). This does not include under-provisioning where the number of days of employment provided was less than asked for.

The supply-driven nature of the programme leads to other problems. The budget for the programme has been reducing. In real terms, the budget in 2018-19 was less than that in 2009-10. Further, wages are no longer linked to the Minimum Wages Act and are now lower than the statutory minimum wage in many states in violation of the Act (Narayanan and Pothula 2018). Variability of job provision has reduced the impact it could have had on wages (Bahal and Shrivastava 2016). And as with any other government programme, this programme too has been afflicted with corrupt practices of various kinds (Niehaus and Sukhtankar 2013).

Narayanan, Dhorajiwala, and Golani (2018), in their SWI background paper, examine one particular problem that has a huge impact on the beneficiaries of the programme, namely, delay in payment of wages. The paper finds in its analysis of more than 9 million transactions over 10 states that only 21 per cent of payments were made on time. According to the Act, a compensation for delay in payment needs to be paid if the delay is beyond 15 days. Narayanan et al. show that the mechanism for the payment of this compensation is flawed at multiple levels. The compensation amount is a paltry 0.05 per cent of the wage for each day of delay and there is arbitrary power to accept or reject the compensation amount in the hands of the Programme Officer at the block level. Out of all the payments that were delayed, the compensation was calculated only partially in 47 per cent of the cases whereas it was not calculated at all in 32 per cent of the transactions.

The MGNREGA has played, and is still playing, a very important role in the lives of rural workers in the country. The direction in which the government decides to take the programme has to be keenly observed and critically analysed at every stage.

## 2.6 / Conclusion

The key point that surfaces in this chapter is the level of unemployment, and its high incidence among young educated men. This situation becomes more grievous as it occurs along with a low and falling rate of labour participation. Evidently the GDP growth of the country has not been able to create enough jobs, so this calls for other measures specifically targeted at creating employment. A starting point could be to have a clear employment policy for the country. We will discuss this and some other possible measures in the concluding chapter of the report.

The labour force participation rate is low in India, primarily due to the low participation of female workers. This is worrying by itself as working outside the house leads to better bargaining power for women that in turn produces better outcomes for children. Irrespective of what is causing this low participation rate, an improvement in this seems critical for the country to benefit from its demographic dividend in the form of a large working age population.

Another reason for low labour force participation is that increasing numbers of young people are taking up higher education. This defers the employment problem but makes it more challenging as these graduates would eventually look for jobs that are commensurate to their education and training. The employability of these graduates remains questionable and the government is making a number of efforts to provide 'skills' to workers to increase their employability. It may be time to rethink our understanding of skill and how it can be provided when most training happens on the job. Recognition of prior learning and stipend-driven or night classes could be some policy options to be considered.

Migration is a reality of the modern development process and a clear employment policy, that deals with it either by creating more jobs in rural areas or by providing support to urban migrants to reduce some of the negative effects on the migrants as well as those remaining behind, is required.

In the next chapter we analyse the current patterns of employment across sectors, states, and industries to assess the nature of the structural change that India is undergoing.