Rising Unemployment in India
A Statewise Analysis from 1993–94 to 2017–18

ARUP MITRA, JITENDER SINGH

The rise in the unemployment rate in the recent years along with its convergence across states could be an indicator of a positive change in the economy. Its association with educational attainments and urbanisation is testimony to the brighter side of the development story of India. Further, this rise, against the backdrop of the falling share of the informal sector employment, may suggest that the labour market participants can now afford to remain unemployed instead of getting residually absorbed in petty activities. However, this must not undermine the larger issue of employment creation, which has been a matter of great concern since long.

According to the latest report on the employment–unemployment situation (Periodic Labour Force Survey (PLFS), 2017–18 of the National Statistical Office), the unemployment rate is estimated at 6.1% at the all-India level as per the usual status criterion. This confirms that the unemployment rate is not only on the rise in the country, but also that it is at an all-time high. It has been the highest since 1977–78 among the males and highest since 1983 among the females in the rural as well as urban areas (Figure A1 in the Appendix, p 16). Further, between the sexes, the unemployment rate is higher among the urban females at 10.8% than their male counterparts, estimated at 7.1%. In the rural areas, the male unemployment rate, estimated at 5.8%, exceeded the female rate at 3.8%. The unemployment rate, being the highest among urban females, does not come as a surprise because many of them are educated and can afford to wait for long till a job of a desirable status becomes available as they may not be the principal earners.

The unemployed persons in 2017–18 have more than doubled to 28.5 million from 10.8 million in 2011–12 (Figure A2 in the Appendix, p 16). Before that, the number of unemployed persons was hovering around 10 million in the country in 1999–2000, 2004–05, and 2009–10. The rise in unemployment in the recent years is also due to an addition of about 18 million persons in the labour force in 2017–18 over 2011–12, although only 0.5 million net jobs were added during this period. The rural and urban dynamics, however, shows a different picture. In the rural sector, between 2011–12 and 2017–18, there has been a decline of about 17.7 million jobs, while about 18.3 million have been added in the urban sector. On the labour force side, about 26.4 million persons have been added to the urban labour force, whereas, there is a decline of 8 million persons in the rural sector during this period. These could be the reasons as to why the rural male unemployment rate, which usually hovered around a low of 2% or so in the past, suddenly shot up and even exceeded the female unemployment rate. Among the females, the phenomenon of “discouraged drop-outs” from the labour market is common. With the lack of rural diversification resulting in shrinking job opportunities, rural women are not unlikely to quit the labour market. On the other hand, the public distribution system (PDS) and a number of schemes available for the rural population might not have allowed the spillage of unemployment to cause deterioration in consumption poverty.

Relating to unemployment, there are two features that stand out sharply. First, the acceleration in the unemployment rate has occurred across states. There are a number of states that have crossed the 5% unemployment rate. These are Goa, Manipur, Kerala, Mizoram, and Nagaland, Haryana, Assam, Punjab, Jharkhand, Tamil Nadu, Uttarakhand, Bihar, Odisha, Tripura, Uttarakhand, Atal Pradesh, Arunachal Pradesh, Himachal Pradesh, Jammu and Kashmir, and Rajasthan. In fact, the unemployment rate in some of these states has reached double digits, namely Goa, Manipur, Kerala, Mizoram, and Nagaland. In comparison, in 2011–12, there were only three state/union territories, Tripura, Nagaland, and Lakshadweep, which had a double digit unemployment rate. An unemployment rate of even 5% was not recorded in too many states or union territories (in addition to the three mentioned above, four more, Kerala, Assam, Chandigarh, and Andaman and Nicobar, belonged to this list in 2011–12). Further, another important feature of the regional unemployment rate is that the variation has declined across the states since 2009–10, as reflected in the declining coefficient of variation (Figure A3 in the Appendix, p 16). This indicates that the convergence of the unemployment rate across states is...
in place. The deterioration on the employment front is very much evenly distributed spatially. However, there could be another side to this which need not involve a gloomy interpretation of the data. After all, in a poor region/country, it is difficult to afford unemployment for long, and thus the usual status unemployment rate was always low in the past. Given the availability of the consumption support schemes, particularly in the rural areas, the rising opportunities for young, educated, and school drop-out young adults to migrate, thanks to the contractors, have raised remittance flow, which in turn may have reduced the compulsion for non-migrants to pick up petty and low productivity jobs. For a long time, in the informal economy, which for many is the “employment of the last resort,” the situation of “excess supply limited demand” was prevailing, leading to large-scale underemployment and a residual absorption of labour in low productivity activities.

The wages varied widely across activities leading to a multi-modal wage distribution within this sector, though, on an average, low labour productivity, meagre earnings, poor hiring conditions and the lack of upward mobility add up to what is called the lack of “decent employment.” Possibly, within the informal sector, some of the jobs are fetching higher earnings and given the well-knitted support structure, the desperation to strive hard is on the decline. This note focuses more on two questions: Why is there an acceleration in the unemployment rate across states in the recent years? What explains a decline in the statewide variation in the unemployment rate? In spite of rising business subcontracting from the formal to the informal sector, evidence of rising real wages within the informal sector is rather scanty, which is aggravated by the existence of multilayers of intermediaries/contractors.

The common perception about unemployment is that high and rising unemployment rates are a reflection of the disequilibrium in the economy, which may further aggravate social and economic problems. It is even more important to understand as to what is causing a high in the unemployment rate as the economic literature also suggests that it may increase in response to development and structural changes taking place in a country. This is a preliminary note focusing on the economic and transitional processes, which involve structural changes in economic development, labour force participation and its gender composition, educational and skill attainment and urbanisation that have the capacity to influence the unemployment rate.

Results and Discussion

There are some empirical studies that have systematically studied the relationship between the unemployment rate and development. Caselli (2005) plotted the unemployment rates against log of per capita income, showing that contrary to common perceptions, unemployment rates are not higher in poorer countries. Fang et al (2018) analysed household surveys or censuses of 199 country-year surveys, covering 84 countries, and spanning from 1960 to 2015 and observed that the employment rate is increasing in response to the gross domestic product (GDP) per capita, and the highly educated workers are more likely than the low-educated workers to be unemployed in poor countries.

The literature providing evidence for skill-biased technological change in the rich and poor economies also argues that the unemployment rate among the skilled workers should decline with an increase in development and technological change. Banerjee et al (2016) estimated a negative correlation between the logarithm of observed GDP per worker and the employment rate of skilled workers at -0.428.

Lewis (1954) and Harris and Todaro (1970), using a two-sector model, documented that labour shifts from the traditional low-productivity sector (rural) to the modern high-productivity sector (urban) in the course of development. The high unemployment rate in the urban sector prevails mainly because of the migration of surplus labour from the rural areas, which accelerates with an increase in connectivity between the two sectors. This may be taken to argue that higher levels of urbanisation may correspond to higher unemployment rates. Further, the most mobile and capable labour force is likely to migrate from the rural to urban areas, which may decrease the labour force and the unemployment rate in the rural areas. This gives us a clue so as to understand the new trends in unemployment in response to development indicators, such as education, skills, urbanisation, and the share of traditional sector.

Development

Employment is likely to increase with an improvement in the level of development (indicated in terms of per capita income). The mechanism works through the production process wherein more and more labour is utilised to produce more output and income. However, unemployment may increase with an increase in per capita income for several reasons. First, the production process may utilise less labour with a change in production technology and may not keep up the pace with the increase in labour force. Further, the income may disproportionately originate from the sector, which employs a very small segment of labour on account of productivity gains. Moreover, income generation may be limited to a small section of the labour force without employing more labour.

Figure 1 (p 14) plots the unemployment rate (vertical axis) against log of per capita income of a state (horizontal) year-wise. It shows no concrete association between the two. The correlation coefficient is weak (except 2011–12) and statistically insignificant. The evidence can be taken to suggest that there is no concrete association between growth and unemployment rate in India. This weak association is consistent over the years. The direction of their association is also not clear. Therefore, one is neither sure of whether the unemployment rate is higher in poor states nor is it seen to be lower in better developed states and vice versa.

Structural Change

The unemployment rate is likely to increase during structural changes in the economy. There are several reasons for this. First, disguised unemployment is likely to become more visible once the activity status changes from the farm to the non-farm sector. For example, households engaged in the farm sector have members who are only assisting,
partly or wholly, on farm activities, and these members are likely to be working in the non-farm sector in principal or subsidiary status. However, once the family starts working in the non-farm sector, the labour of all other members may not be utilised as it was possible in agriculture. Second, the family leaving the farm sector may also have their threshold wage limit and job preferences which increase the duration to remain unemployed with a view to finding a suitable work. Third, a better educated person of a farming family may disassociate themself as a worker in agriculture, but may still claim to be a part of the labour force looking for work in the non-farm sector. Fourth, the capital-intensive technology in the agriculture sector frees up labour that may not find an alternative livelihood option elsewhere.

Figure 2 plots the unemployment rate against the share of workforce employed in agriculture which shows a relatively strong association between these two over the years. The statistically significant negative correlation between these two range between -0.6 to -0.8 (except for 1993–94) at different points in time since 1993–94 till 2017–18. This shows that the states wherein the agriculture share of workforce is low are also the states with higher unemployment rates, and vice versa. This change in the rural sector, that is, moving away from agriculture to non-agriculture, has been strongly associated with the unemployment rates.

These trends of declining workforce in agriculture are likely to continue for several reasons. First, the operational holding size is declining over the years making survival on land alone difficult or making the holding unviable. The National Sample Survey Office (nssо) found that about 70% of farmer households are spending more than what they are earning. Second, the productivity in agriculture is relatively low compared to non-farm and other modern sector activities. The preference of the farmers is changing, as reflected in the nssо surveys, which suggest that about 40% of the farmers want to leave the profession given the option (Agarwal et al 2016).

**Education and Skills**

Education is likely to increase unemployment for several reasons. First, education and skills raise the threshold wages of a potential worker who may prefer to remain unemployed and keep searching for suitable jobs. Second, education and skills also have the potential to make the farming sector less viable, leading to unemployment.

---

NEW

**EPWRF India Time Series**

(www.epwrfits.in)

**Mineral Statistics**

The EPW Research Foundation has added a module on Mineral Statistics to its online database, EPWRF India Time Series (EPWRF ITS).

This module provides the following data for over 60 minerals:

- Reserves and Resources – by States;
- Mining Leases – by States and by Type of Organisation;
- Status of Expiry of Mining Leases;
- Prospecting Licences – by States;
- Production – by States, by Type of Organisation, by Captive and Non-captive Mines and by A & B Category Mines;
- Index of Mineral Production:
- Index of Mineral Prices – for base years 1952–53 and 1970;
- Consumption, Production and Closing Stock; and
- Exports and Imports:
  - By Ores and Minerals; and
  - By Principal Countries.

Data are available mineral-wise from 1956 onwards depending upon their availability.

The EPWRF ITS has 20 modules covering both economic (real and financial) and social sectors.

For subscription details, visit www.epwrfits.in or e-mail us at its@epwrf.in
change the job preference of the potential workers, and therefore, they may prefer to remain unemployed till a suitable job is found.

On the other hand, in the short run, participation in education and skill upgradation may delay labour force participation. The demand for new skills has risen in the recent past on account of improved premium due to skill-biased technological progress in the organised industry and services activities. The skill premium on higher education may hold millions in the educational institutions, but this being a temporary phenomenon is more likely to increase the unemployment rate in the economy.

Figure 3 plots the unemployment rate against the percentage of persons having “secondary and above education.” It shows a positive association between these two. The positive correlation coefficient is found to be strong and statistically significant in 1999–2000 and 2017–18, while for other years, it is weak, though positive. The states with a higher percentage of population having relatively higher education and skills are more likely to observe a higher rate of unemployment.

Urbanisation

Urbanisation is an important process of economic transition. States in India are witnessing variations in their levels of urbanisation. Even if the official urbanisation rate is moderate, the large-scale emergence of census towns in 2011 is a strong indication of the rapid transformation that is taking place in the rural areas. The possibility of disguised unemployment in the urban labour force is low compared to the rural areas, and therefore, with increased urbanisation, the unemployment rate also becomes more visible. Besides, frictional unemployment and technological unemployment are also part of the urban labour force in the relatively skilled jobs.

Figure 4 plots unemployment rates against the percentage of urban population, and it is important to note that no concrete association between the two is evident until the year 2017–18 for which the correlation is strong, positive and statistically significant.

Conclusions

There is acceleration in the unemployment rate in the recent years along with the convergence of unemployment rate across states, although per capita income as such is not seen to be related to unemployment rate across states and, over time, the structural change and educational attainments do unravel strong effects. The changes in the rural sector with a declining dependence on the farm sector are associated with a rising unemployment rate. Although water scarcity and low crop diversification are prevalent, new processes of contractor-led single member migration from rural households and remittance flow, emergence of new non-farm activities and consumption support schemes are instrumental to the new transformations occurring in the rural areas and their transition to urban spaces. Besides, the association of the unemployment rate with educational attainments and the urbanisation–unemployment nexus observed from the PLFS data are testimony to the brighter side of the development story of India.

It is also noted from the data that the share of the informal sector in total employment has declined compared to the earlier NSSO’s enterprise survey results relating to the usual status workers. The rise in the unemployment rate as seen against the backdrop of the falling share of the informal sector employment offers space for interpretation that negates the desperation of the workers to join the informal sector keeping the open unemployment rate low.

While pessimism gathering around the rising unemployment rate needs to subside, it is equally important to pay attention to the larger issue of employment creation. Since wage employment cannot be provided on a large scale, there is a need to promote entrepreneurship by creating a facilitating environment for start-ups, innovations and so on. Keeping in view the skill gaps in various activities, emphasis has to be given on vocational education and training, which can be integrated with the general education system. Instead of confining training to the initial entry level in jobs, up-skilling/reskilling would be necessary to adjust to the requirement of the changing economy. It also requires availability of adequate training infrastructure and considerable improvement in the quality of these institutions. Further, interventions for the provision of on-the-job training is important as with increasing contractualisation, the employers do not have any interest in providing training to the employees.
The other aspect relates to the geographical location of the skill imparting institutions. Unless the low-income households both from rural and urban areas are able to access skill, the transfer of labour from low productivity to high productivity activities would remain unrealised. However, from the demand side, it is equally important that high productivity job opportunities must grow rapidly so that labour can be motivated to acquire skills and make itself employable. Hence, the relevance of the growing business environment cannot be overlooked. The new technology with its high dependency on capital intensity is expected to pose serious challenges to employment creation both in the manufacturing and the services sector. Without major scale effects at place, how are the dual objectives of growth with employment generation are to be realised? Often, we do not realise the importance of adequate purchasing power, the lack of which may result in economic deceleration, making growth unsustainable in the long run.

REFERENCES


Appendix

Data Sources and Methods

The study is based on the data for about 25 years starting from 1993–94 to 2017–18 from various sources. The NSSO, Ministry of Statistics and Programme Implementation, Government of India conducted quinquennial Employment and Unemployment surveys. Data on various indicators/variables, such as related to labour force, workforce, unemployment rate, share of agriculture in workforce, education and urbanisation, are estimated from various NSSO rounds: 50th round (July 1993–June 1994), 55th round (July 1999–June 2000), 61st round (July 2004–June 2005), 66th round (July 2009–June 2010), 68th round (July 2011–June 2012) and PLFS (July 2017–June 2018). The surveys provide labour force participation rate, workforce participation rate, and unemployment rate as per activity status, namely usual principal and subsidiary status, current weekly status, and current daily status. As per principal status, a person is considered employed if they get work on major time spent during the 365 days preceding the date of survey. On subsidiary status, a person is employed if they are able to get work for 30 days and more (not necessarily for a continuous period) during the last 365 days, and are not principally employed.

The rates, for example, labour force participation rate (LFPR), workforce participation rate (WFP), as given in the surveys, are multiplied with projected population to get the number of persons in labour force and workforce respectively. Population is projected using growth rates calculated using the census population.

The number of persons unemployed is taken as the difference between the number of persons in the labour force and the number of persons employed. The unemployment rate is taken as the number of persons unemployed as a percentage of the number of persons in the labour force. The analysis is based on statewise data (except Delhi and Nagaland). The regional dynamics play an important part as the employment is more of a local phenomenon. In spite of free movement of people from one state to another, the cost, social and cultural barriers make the regional dynamics prominent. Moreover, different levels of development, demographic and economic transition of the states in India are crucial for a regional analysis.

Among other indicators, per capita net state domestic product at factor cost is sourced from Reserve Bank of India handbook, which compiles information from Central Statistics Office, Ministry of Statistics and Programme Implementation, Government of India. Scattered graphs and correlation are used to analyse the data.