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ARTICLE

Youth Employment and Unemployment in India: Issues and Challenges

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Abstract

The issue of youth employment is a global challenge. In India it has emerged increasingly as a daunting challenge over the years. This paper looks into various dimensions of the youth employment and unemployment in terms of their labour market characteristics. The challenge is particularly analysed in terms of ongoing demographic transition, regional diversities and changing pattern of labour markets. It also provides some policy pointers to address the challenge.

Keywords Youth · Employment and unemployment · Demographic transition · Youth employment

Employment is one of the top issues dominating the current academic and policy discourse in India. The overall open unemployment rate in the country over the last several decades has been hovering at around 2–3%. While this rate has recently increased to 5.8% (for the working-age population in 2019–20), it is still much lower than that prevailing in most of the large developed countries, such as Canada (9.5%), Italy (9.2%), Spain (15.5%) and USA (8.1%), with UK being the only exception that has a lower unemployment rate than that of India. However, the unemployment rate for youth, that is, working population in the age group of 15–29 years, in India is similar to that in several developed countries such as Canada and France and higher than that of USA. In fact, the youth unemployment rate among the educated in India is around 25%, which is significantly higher than that in most developed and developing countries, with a few exceptions like Spain and South Africa.

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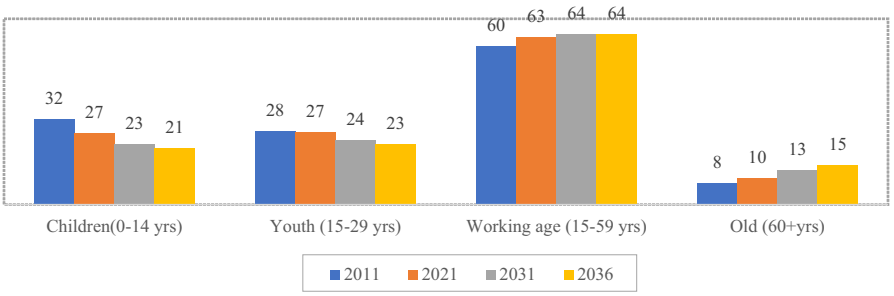

Fig. 1 Demographic Composition (in %) in India (2011–2036). *Source*: Report of the Technical Group on Population Projections, 2020, Ministry of Health and Family Welfare, Government of India

This paper is based on secondary sources of information and data from the Employment and Unemployment Survey, 2011–12, the annual Periodic Labour Force Survey of 2019–20 of the National Sample Survey Organisation (NSSO) and other published reports from national and international organisations. The labour market characteristics are analysed mainly in relation to the two categories of the youth labour force (aged 15–29 years) and the rest of the labour force (aged 30–59 years) comprising the working-age group of 15–59 years with the objective of providing a comparative perspective. The employment and unemployment characteristics of the youth are examined on the basis of the Usual Principal Activity (UPS) status or the activity status on which a person has spent a relatively longer time during the 365 days preceding the date of the survey.

1 Demographic Transition and Characteristics of Indian Labour Market

1.1 Demographic Transition and Youth

With an average age of 28.4 years, India has one of the youngest populations in the world; with its young population of around 371 million, the country accounts for around one-fifth of the world's total youth population. While in many countries of the world, particularly the developed ones, the number of elderly people has been increasing steadily, India, in contrast, has bucked this trend, with its young (aged 15–29 years) and working population (aged 15–59 years) showing a rise. This 'demographic advantage' occurs only when the share of the working population is high and increasing, and consequently, there is potential for more people to participate in productive work and contribute to the national income.

India has already achieved this demographic advantage with a high share of its working-age population and will remain in this demographic zone for at least another decade. The share of the working-age population in the country, which stood at 60% in 2011, is estimated to have increased to 63% by 2021 and is expected to go up further to 64% by 2031 (Fig. 1). However, the youth population, on the other hand, which comprised

around 28% in 2011, is estimated to have declined marginally to 27% in 2021, and will drop further to 23% in 2031.

While the share of youth in total population has now started to decline, the youth in India still account for a very high population share and size as compared to most countries in the world, which will continue to be significant in the country's demographic structure for at least the next decade (Sasikumar, 2019). If this vast resource of the young population were to enter the workforce, it would create a 'demographic dividend' depending on India's capacity to utilise this vital pool of human resources by providing good education and productive employment opportunities. The massive implications for India's growth and development process for youth can be gauged from the fact that nearly one-third (34%) of the country's gross national income was estimated to have been contributed by the youth in 2014 (National Youth Policy, 2014, GoI). However, since the youth population has already started declining, India has a last window opportunity, for just the next ten years beginning 2021, to exploit this potential 'demographic dividend'.

Therefore, before analysing the labour market characteristics of the youth, it is important to understand some of the stylised facts about the Indian labour market.

1.2 Some Stylised Facts About the Indian Labour Market

Before discussing the status and challenges of employment and unemployment currently facing the youth in India, it would be useful to understand some stylised facts about the Indian labour market. India has witnessed high economic growth during the last three decades or so. Its status has thus changed from a low-income to a lower–middle-income country. However, the consequent changes in the labour market have been small and India still exhibits most of the characteristics of a poor developing country. This is evident from its low levels of unemployment (till recently), but relatively high levels of poverty. The share of the country's GDP in agriculture fell drastically to around 15% in 2019–20, but close to 44–45% of the total workforce is still employed in agriculture. This is among the highest in the world, even among developing countries. Not surprisingly, the urbanisation level in the country stands only at around 30%, which is among the lowest in the world. Further, there is a very high degree of informality in the labour market (around 90% of the workers are informal). Even in the non-agricultural sector of the economy, around three-fourth of the workers are informal. The labour market is also characterised by a high level of segmentation in terms of gender, rural–urban and regional locations, as well as social groups. The female workforce participation in the country is also one of the lowest in the world. Although the gender gap in the labour market has been slowly declining, still in several spheres considerable gap exists. Further, labour productivity is also low, though it has risen significantly during the last three decades, more so in the non-agricultural sector. Lastly, the development path in India has been different from the experiences of developed countries, where both the GDP and workforce showed a rapid transit from agriculture to the manufacturing and finally to the services sectors. In India, on the other hand, the growth path has followed the trajectory

Table 1 Size of youth (15–29 years) and adult (30–59 years) population, labour force and work force in UPS (in million):2011–12 and 2019–20

	Population			Labour force			Workforce			Unemployed		
	Youth	Adult	All	Youth	Adult	All	Youth	Adult	All	Youth	Adult	All
2019–20												
Person	369	491	860	145	329	474	121	325	446	24	4	28
Male	190	250	440	113	238	351	94	235	329	18	3	21
Female	179	241	420	32	91	123	27	90	117	6	1	7
2011–12												
Person	339	409	748	138	264	402	127	263	390	10	2	12
Male	175	206	381	108	203	311	101	202	303	7	1	8
Female	164	203	367	29	62	91	26	61	87	3	1	4
Change	30	82	112	7	65	72	-6	62	56	14	2	16
Growth	1.1	2.3	1.8	0.6	2.8	2.1	-0.6	2.7	1.7	11.6	9.1	11.2

Youth, adult and all denote 15–29 years, 30–59 years and 15–59 years in this table as well as subsequent tables unless otherwise stated

Source: EUS and PLFS, NSSO, 2011–12 and 2019–20 and Report of the technical group on population projections, 2020, Ministry of Health and Family Welfare, GOI

from agriculture to services in terms of the structure of GDP, and the manufacturing sector has not been the engine of growth. In terms of employment share, there has been very slow transfer from agriculture to non-agricultural sector and only to construction and services. It has been convincingly argued that this distorted pattern of growth to a large extent is responsible for slow structural transformation and low employment growth in India (Ghose 2016). These characteristics of the labour market are important for formulating policies both for overall employment as well as for youth employment. The subsequent sections will highlight the broad labour market characteristics of working-age population by comparing the youth (15–20 years) with adults (30–59 years).

2 Labour Market Characteristics of Youth

2.1 Population, Labour Force and Workforce

In India, the youth population comprises 43% of the total population, at 369 million, and adults constitute 57% (or 491 million) of the total working-age population of 860 million. Under the *Usual Principal Status* (UPS), the labour force for working age is estimated at 474 million, which includes 145 million (31%) youth and 329 million (69%) adults in 2019–20 (Table 1). There is wide gender difference in the youth (32 million) and adults (91 million) labour force size in the working-age population.

Table 2 Labour force participation rate (%) of youth and adults by Gender and Sector: 2019–20 and 2011–12 (UPS)

	Working-age Population (15–59 years)			Non-Student Population		
	Male	Female	All	Male	Female	All
2019–20						
Youth	58.9	17.8	39.0	95.2	25.9	59.8
Adult	97.1	35.9	66.1	97.2	36.0	66.2
All	80.7	28.5	54.7	96.6	32.7	64.1
2011–12						
Youth	62.1	17.5	40.5	96.6	23.7	58.7
Adult	97.7	30.1	64.1	97.7	30.1	64.1
All	82.0	24.7	53.9	97.3	27.8	62.2

Source: EUS and PLFS, NSSO, 2011–12 and 2019–20

About 72 million additional persons in the working-age population, including 7 million youth and 65 million adults, joined the labour force between 2011–12 and 2019–20. However, there is a huge difference in the population and labour force growth rate of youth and adults; the population growth of the former is far less than that of the labour force, while the labour force growth is higher than the population growth in the case of adults. In particular, the gap between population and labour force for females is relatively more than males. This suggests that a large number of young people especially women are not entering into the labour market due to various factors.

Further, the workforce in the working-age group is estimated at 446 million, including 121 million youth (27%) and 71% adults (73%) in 2019–20 (Table 1). The difference between the labour force and workforce (that is, the unemployed) is 28 million, mainly attributable to the youth population of 24 million. The youth and adult workforce presents a contradictory trend. Around 62 million additional adults joined the workforce between 2011–12 and 2019–20, while a reduction of 6 million reduction is recorded in the case of the workforce among the youth during the same period. This is reflected in a huge rise in the number of unemployed youths in recent years, from 10 million in 2011–12 to 24 million in 2019–20. In particular, the female unemployed youth has doubled from 3 to 6 million during the same period indicating a serious concern regarding the generation of new employment opportunities for young females in the labour market.

Table 3 Work force participation rate (%) of youth and adults by gender: 2019–20 and 2011–12(UPS)

	Working-age Population (15–59 years)			Non-Student Population		
	Male	Female	All	Male	Female	All
2019–20						
Youth	49.3	14.7	32.5	79.7	21.4	49.9
Adult	96.0	35.5	65.3	96.1	35.5	65.4
All	76	27	51.6	90.9	31.0	60.4
2011–12						
Youth	57.8	15.8	37.5	89.9	21.3	54.3
Adult	97.2	29.7	63.7	97.3	29.7	63.7
All	79.9	23.7	52.3	94.8	26.7	60.4

Source: EUS and PLFS, NSSO, 2011–12 and 2019–20

2.2 The Labour Force Participation Rate of Youth is Much Lower Than Adults and Less Among Females Than Males

The Labour Force Participation Rate (LFPR) of the working-age population stands at around 55%, which is higher in the case of adults (66%) than among youth (39%). (Table 2). For non-student population LFPR for non-student population was significantly higher at (about 65% which is only marginally lower than for adults (about 66%). For non-student youth the LFPR is as high as about 60%.

Between 2011–12 and 2019–20, the LFPR has increased for adults, but declined for the youth. The LFPR for youth typically falls as a country progresses because young people increasingly enrol in larger numbers in secondary and higher education (ILO, 2012). This is also true in the case of India, where the youth are increasingly participating in higher education (Ghose, 2019).

There is a huge gender gap in LFPR, both among adults and youth in the labour market. This male–female gap in LFPR is more visible, when we consider the non-student youth population. It has been widely suggested that social attitudes and patriarchal norms tend to suppress the female labour force participation rate. In addition, the non-availability of suitable employment opportunities over the long term may motivate women not to participate in the labour market, a phenomenon also known as 'discouragement', which has been widely discussed (ILER, 2014; Dasgupta and Sher Verick 2016; Ghose, 2019; Ghose and Kumar, 2021; Mehta and Awasthi, 2019).

2.3 The Worker–Population Ratio of Youth is Much Lower Than Adults and Less Among Males than Females

A narrower view on presence in the labour market is provided by the worker–population ratio (WPR), which is defined as the ratio of workers to the population of that age group. The working-age WPR in India stands at around 52%, which was almost stable between

Table 4 Education level of working-age population (in %): 20,011–12 to 2019–20

Education level	2019–20			2011–12		
	Youth	Adult	All	Youth	Adult	All
Illiterate	6.8	29.8	20.2	13.2	36.4	26.3
Below secondary	36.0	39.2	37.9	42.1	36.9	39.2
Secondary/higher secondary	42.6	19.7	29.3	36.2	18.0	25.9
Graduate and above	11.7	9.2	10.3	6.7	7.3	7.0
Technical graduate	2.5	1.6	2.0	1.2	1.0	1.1
Technical below graduate	0.4	0.3	0.3	0.6	0.4	0.5
Total	100	100	100	100	100	100
Secondary and above	57.2	31.0	42.0	44.7	26.7	34.5

Source: EUS and PLFS, NSSO, 2011–12 and 2019–20

2011–12 and 2019–20 (Table 3). On the other hand, the youth WPR was not only low at 32.5% in 2019–20, but also declined from 38% in 2011–12. The WPR of youth in the non-student working-age population (50%) is significantly higher than total youth population (33%), whereas WPR among adults (65%) is almost similar between the two segments.

Although the gender gap in WPR for youth has narrowed over the years, from 42 percentage points in 2011–12 to 34 percentage points in 2019–20, there is still a wide difference between the male WPR (at 49%) and the female WPR (at 15%) (Table 4). The gender gap in WPR is wider in case of youth non-student population (59 percentage points) than total youth population (34 percentage points). Around half of the non-student youth population is still not participating in any economic activity, especially females (around 80%) compared to males (around 21%). As mentioned earlier, this could be attributed to the lack of suitable jobs and the prevalence of a poor work environment particularly for educated youth females.

Additionally, only 3.3% of the youth worked in the subsidiary status only, which was less than half of that of adults (7%) in 2019–20. Among females, both the youth and adults worked more in the subsidiary status than their male counterparts, with a larger gender gap existing among adults. The higher female participation in the subsidiary status of work may be attributed to their greater involvement in part-time engagement in agriculture and allied activities in rural areas. However, the proportion of youth involved in only subsidiary status of work is very low and continues to decline. It is for this reason that in this paper we have not considered subsidiary status and have instead focused on only main status for analysis. The educational levels and skill training attainment of the youth is one of the key indicators that decide smooth transition into the formal labour market.

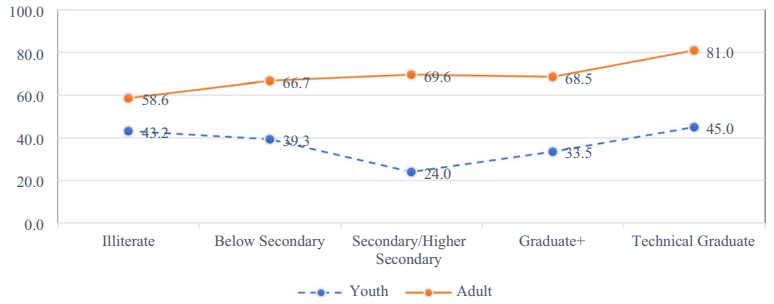

Fig. 2 Level of Education and work force participation rate (%) of youth (15–29 years): 2019–20 (UPS). Source: PLFS, 2019–20, NSSO

2.4 Education and Skill Training Attainment of Youth

The level of education shows that there is relatively a high level of education among the youth and it has been rising further (Table 4). The literacy level among the youth increased from 54.4% in 1983 to 93.2% in 2019–20. Only 14.4% of the youth were educated till the secondary level and above in 1983, with the corresponding figure going up to 57.2% in 2019–20. In 2019–20, about 14.2% of the youth were graduates, of which 2.5% were technical graduates.

Significantly, youth enrolment in higher education is on the rise. It is also important to know the enrolment status in higher education for the youth currently acquiring education and the subsequent delay in their entry into labour markets. More than one-third or 34% of the total youth were reported to be attending educational institutions in 2019–20, which was five times higher for the 15–19-year age cohort, at 71%, than that for the 20–29 year age cohort, at 14%.

In spite of this substantial improvement in the levels of higher education, around 43% of the youth in the country still have a low level of education, that is, below the secondary level or illiterates which is even higher among adults (69%) (Table 4). This low level of education is a matter of serious concern. However, here it is important to point out a caveat regarding the gender balance in higher education with an almost equal share of female (17%) and male (17.5%) graduates among youth compared to wide gender difference among adults (13.3% male and 8.6% female graduates) which indicates the rising attainment of higher education among women in recent years (App. Table 3).

Another important fact to be noted is the low level of formal vocational/technical training among the youth. Imparting formal vocational training is considered as one of the core strategies for improving the employability among jobseekers and entrepreneurship skills among the potential self-employed people. Accordingly, several initiatives have been taken in India over a period of time to strengthen the skill development and vocational training system. However, as of 2019–20, only 4.1% of the youth and

only 2.6% of the adults had acquired formal vocational/technical training. This figure is conspicuously low as compared to that recorded in the developed economies, where on average, nearly 60 to 70% of the youth have received some formal vocational/technical training.

The proportion of youth who acquired formal vocational/technical training is even lower in rural areas (at 2%) as compared to urban areas (at 5.8%), and among females, wherein the corresponding rate is 2.9% as compared to that of males at 3.5%. Although these figures, based on NSSO surveys, do not capture many types of skills that are informally acquired, they still suggest that skill-acquisition is generally low. Thus, in spite of the initiation of various efforts in recent years, India still faces a major challenge in terms of delivering formal vocational training for its youth.

2.5 Youth WPR and Level of Education Shows a 'U'-Shaped Relationship

Educational attainment is a key determinant of labour market outcomes, which shows a U-shaped relationship between educational levels and WPR for youth, and upward movement curve in case for adults for the same. The lowest WPR is experienced by youth with secondary/higher schooling, while illiterates and technical graduates show the highest WPR (Fig. 2). This indicates that youth in India with low levels of education (especially among those from the poorer backgrounds) generally participate in whatever job opportunities are available in the market, whereas after completing their secondary/higher level of education, their aspiration levels go up and they tend to wait for better opportunities (they also generally come from better-off financial backgrounds). On the other hand, graduates and technically qualified youth have a higher chance of getting a decent job as compared to youth educated only up to the secondary/higher secondary level.

However, the relationship between level of education and WPR shows a different pattern among adults as compared to youth. The adult WPR is consistently rising with the level of education, which is highest among technical graduates (81%) and lowest among illiterate (59%).

Some of the earlier studies also confirm that as the level of education goes up, so does the likelihood of finding better quality employment, particularly after the graduate level of education, that is, there are 20–30% higher chances of being in a decent job, as compared to others (Kapsos et al. 2016; Chaudhary and Verick, 2014; Mehta and Shree, 2017). Although increased participation in higher education may have an adverse impact on the LFPRs and WPRs in the short run, in the longer run, it is expected to usher in new labour market prospects for youth with higher educational attainments. Therefore, higher educational attainment among youth and imparting relevant vocational training and education to them may be crucial for ensuring an increase in the WPRs for youth and women.

Table 5 Status of employment (%) of youth (15–29 years): 2011–12 and 2019–20 (UPS)

	Youth			Adult		
	Male	Female	All	Male	Female	All
2019–20						
Self-employed	41.0	48.1	42.6	53.1	53.4	53.2
Regular employed	30.8	31.2	30.9	24.2	21.4	23.4
Casual Worker	28.1	20.7	26.5	22.8	25.1	23.4
All	100	100	100	100	100	100
2011–12						
Self-employed	41.6	46.7	42.6	51.7	49.9	51.3
Regular employed	23.0	21.9	22.7	20.7	15.9	19.6
Casual Worker	35.5	31.4	34.6	27.6	34.2	29.2
All	100	100	100	100	100	100

Source: EUS and PLFS, NSSO, 2011–12 and 2019–20

2.6 Youth Participation in Regular But Informal Employment is Rising

An important dimension of the quality of employment is its composition in terms of the status of the workforce. Regular employment is considered to guarantee better quality jobs because it signifies regular employment and the accrual of other social security benefits associated with it, while the status of casual work is considered to be relatively low because of its irregular nature and low daily income. Self-employment, somewhat a heterogeneous category, is the dominant category of employment followed by that of regular and casual workers. However, there is a difference in the status of employment between youth and adults, as the former are involved more in self-employment and regular work while the latter are engaged more in self-employment.

A majority of the youth and adults were engaged in self-employed, followed by regular workers and casual workers in 2019–20) (Table 5). Youth were involved relatively more in regular employment and casual wage employment, while adults were engaged more in self-employment activities. There are also gender differences in the status of employment with women engaged more in self-employment and men more in casual work. This may be attributed to the involvement of a larger proportion of youth as self-employed and casual workers in farm activities in rural areas, as compared to regular workers in the non-farm sector, that is, in industry and services in urban areas.

The proportion of youth and adult workers engaged in regular employment has increased, but that engaged in casual work has declined between 2011–12 and 2019–20. This phenomenon is sharper among youth than adults and female compared to their male counterparts. It can also be inferred that more and more youth are joining the labour market as regular workers in recent years. However, the rise in regular employment is not necessarily taken to be decent employment, as a large part of the youth regular workers have no written contracts (72%) and no social security benefits (63%). Among the

self-employed in 2019–20, 45.6% were own account workers and 53% were unpaid family members (66% among females). On average, a self-employed youth worker was earning a daily income of Rs. 566 in 2019–20 (Rs. 993 for males and Rs. 113 for females). Among the regular youth workers in 2019–20, on average, the earning per day was only Rs. 1,177 (Rs. 1,757 for males and Rs. 561 for females). It is evident that a large proportion of youth workers is not employed in decent employment. Further, the gender disparity in work is very high in all forms of employment.

2.7 Structural Shift of Youth Employment from Farm to Non-farm Sector

The industrial distribution of workers shows a sectoral shift in employment. Both youth and adults are engaged relatively more in agriculture than services and industrial sector. However, the share of youth workers involved in agriculture sector is far less than adults, while their share in non-farm industrial and services sector is higher than adults. Across the non-farm sub-sectors, the highest proportion of youth are engaged in construction (15.4%) closely followed by trade, hotels and restaurants (14.4%), and manufacturing (14.4%) (App. Tables 1A and 1B). However, female youth still largely work in agriculture (48%) followed by services (32%).

Over the years, the share of youth engaged in agriculture declined significantly by 6 percentage points between 2011–12 and 2019–20, which shifted entirely to services (6.3 percentage points). However, the decline in share of adult workers from agriculture to industrial and services is marginal around at 2 percentage points during the same period. This also complements the increase in share of youth in regular status of employment in recent years as discussed above, which used to be more prominent in non-farm sector. This structural shift in the share of youth from farm to non-farm sectors has been mainly into sub-sectors such as trade, hotels and restaurants (2.7 percentage points); construction (1.8 percentage points); transport, storage and communications (1.6 percentage points); and business and financial services (1.3%) (App. Tables 1A and 1B). However, the share of youth employed in manufacturing, which is widely regarded as transformation sector also declined from 16.2% in 2011–12 to 14.4% in 2019–20.

The above analysis shows that the youth are joining the non-farm sectors such as construction, manufacturing, and trade and related activities, in greater numbers more than adults. This shift from agriculture is largely due to the fact that agriculture is no longer able to absorb more labour and also because it does not offer remunerative jobs for young entrants into the labour market, who have attained better educational achievements than their predecessors. This young labour force, which is getting increasingly educated, thus seeks more remunerative work outside agriculture. However, many challenges have confronted the medium and large manufacturing and services units in recent years, which are now adopting new labour-displacing digital technologies such as automation and robotisation in their production processes.

Table 6 Occupational distribution (%) of youth by level of skills in 2019–20 and 2011–12 (UPS)

	Youth			Adult		
	Male	Female	All	Male	Female	All
2019–20						
High (IV)	4.0	8.6	5.0	5.0	4.7	4.9
Medium (III)	3.6	8.6	4.7	4.1	5.7	4.5
Low (II)	66.8	59.2	65.1	67.4	59.1	65.0
Unskilled(I)	25.6	23.6	25.2	23.6	30.5	25.6
Total	100	100	100	100	100	100
2011–12						
High (IV)	3.1	5.7	3.6	4.6	3.5	4.3
Medium (III)	2.8	5.7	3.4	3.9	4.4	4.0
Low (II)	62.4	55.5	61.0	63.3	54.5	61.1
Unskilled(I)	31.7	33.2	32.0	28.3	37.6	30.5
Total	100	100	100	100	100	100

Source: EUS and PLFS, NSSO, 2011–12 and 2019–20

2.8 Youth Dominate in Low-Skilled and Unskilled Occupations, and Their Participation in High- and Medium-Skilled Jobs is Rising

Table 6 presents a broad occupational distribution based on the level of skill requirements for performing the job.[1] It shows that the highest proportion of both youth and adults are involved in low-skilled occupations such as clerical jobs, service workers, shop and market sales workers, and craft and related trade workers, followed by unskilled or elementary occupations, such as domestic helpers, cleaners, street vendors and garbage collectors, high-skilled occupations like professionals and the least in medium-skilled occupations such as associate professionals in 2019–20 (Table 6). The involvement of youth is marginally higher in the high- and medium-skilled jobs than adults, whereas the

[1] : Occupation/skill level is divided into four broad categories using NCO (National Classification of Occupations) at one digit:

I: Typically involves the performance of simple and routine physical or manual tasks (NCO code 9-Elementary Occupations or unskilled such as domestic helpers, cleaners, street vendors and garbage collectors etc.).

II: Typically involves the performance of tasks such as operating a machinery and electronic equipment, driving vehicles, maintenance and repair of electrical and mechanical equipment and manipulation, ordering and storage information (NCO code 4-8, low skilled as clerical jobs, service workers, shop and market sales workers, craft and related trade workers, etc.).

III: Typically involves performance of complex technical and practical tasks that require an extensive body of factual, technical and procedural knowledge in a specialized field (NCO code 3, as professional and technical associates); and.

IV: Typically involves the performance of tasks that require complex problem solving, decision making and creativity based on an extensive body of theoretical and factual knowledge in a specialised field (NCO 2 as professional and Technicians).

The concept of skill level was not applied in the case of NCO code 1 as legislators and managers as skills for executing task and duties of these occupations varied to such an extent that it was not feasible to link them with any of the four broad skill levels. (OECD. OECD Employment Outlook 2014; National Classification of Occupations, 2015, Ministry of Labour and Employment, Government of India 1.).

Table 7 Unemployment rate of youth, adult and working-age persons by gender and sector (in %): 2019–20 and 2011–12(UPS)

	Male	Female	All
2019–20			
15–29 years (Youth)	16.3	17.6	16.6
30–59 years (Adult)	1.2	1.2	1.2
15–59 years (All)	5.9	5.4	5.8
2011–12			
15–29 years (Youth)	6.9	10	7.6
30–59 years (Adult)	0.4	1.3	0.6
15–59 years (All)	2.6	3.9	2.9

Source: EUS and PLFS, NSSO, 2011–12 and 2019–20

share of youth females (17%) in high- and medium-skilled jobs is significantly more as compared to their male (8%) counterparts. This may be the reflection of rising level of education and skills particularly among female youth in urban areas in recent years.

Over the years, the employment share of both youth and adults in unskilled occupations has declined, while increased in high-skilled, medium-skilled and low-skilled occupations. Their share in low-skilled occupations such as service workers, and shop and market sales workers has increased the most, followed by that among high-skilled professional and medium-skilled associate professionals and technicians. (App. Tables 2A, 2B). This phenomenon is prevalent more among youth than adults and among females as compared to males. This analysis also points to the increasing demand for high-skilled youth, who should be trained in the relevant new skills, and also the need for retraining the existing workers.

3 Challenge of Youth Employment

The above discussions show that there are multiple challenges for youth in the labour market, which range from unemployment, informality, skill mismatch, digitalisation and changes, gender disparity, etc. The high level of unemployment among the youth is a major concern which needs to be discussed in somewhat more details.

3.1 Youth Unemployment Rate is Rising and is Very High Among the Highly Educated and Females

Youth unemployment rate of youth was 16.6% in 2019–20 in contrast with 5.8% unemployment rate for total working-age labour force. For females, the employment situation is worse. They are moving out of the labour force in greater numbers, but among those who remain in the labour force, unemployment rates are higher among them than those among males (Table 7). The joblessness among the youth increased more than twice from 7.6% in 2011–12 to 16.6% in 2019–20. It is also important to note that although only a small proportion of young people belonging to age cohort 15–19 years seek employment, the incidence of unemployment for this age group is even higher than that

Table 8 Youth unemployment rate (%) by level of education and gender: 2019–20(UPS)

Education level of the youth	Youth			Adult		
	Male	Female	All	Male	Female	All
2019–20						
Illiterate	7.8	0.7	5.5	0.4	0.2	0.3
Below Secondary	8.9	4.4	8	0.7	0.6	0.7
Secondary/Higher Secondary	16.9	16.7	16.9	1.3	2.2	1.5
Graduate +	33.8	40.3	35.7	3.2	6.2	3.8
Technical Graduate	37.5	41.7	39.1	4.4	7.5	5.2
Technical below Graduate	29.6	40.7	33.4	2.8	14.0	6.1
Total	16.3	17.6	16.6	1.2	1.2	1.2
2011–12						
Illiterate	2.6	1.4	2.2	0.1	0.5	0.3
Below Secondary	4.5	4.1	4.5	0.3	1.3	0.5
Secondary/Higher Secondary	8.7	18.7	10.3	0.7	3.8	1.0
Graduate +	19.3	29.9	22.1	1.2	4.3	1.6
Technical Graduate	19.6	23.4	20.8	1.1	4.0	1.6
Technical below Graduate	22.1	41.2	27.3	2.7	7.3	3.4
Total	6.9	10	7.6	0.4	1.3	0.6

Source: EUS and PLFS, NSSO, 2011–12 and 2019–20

of persons in the age cohort 20–29 years. The unemployment rate is considerably higher among females compared to males.

The above analysis indicates that although a relatively lower percentage of youth are willing to (or, 'demand') work, the Indian economy is not only unable to create (or 'supply') enough jobs for those new entrants, but also discrimination prevails against females in the labour market. An additional reason can be that jobs suitable for women are not being created or there is a lack of proper infrastructure facilities, such as transport, suitable housing, crèche facilities, which could facilitate women's access to jobs. As a whole, it is obvious that India has not been able to create enough jobs for its young people. The challenge in case of young females is particularly huge.

It is important to note that the phenomenon of joblessness among the educated youth is increasingly becoming more acute as the level of unemployment among youth rises with an increase in educational levels (Table 8). The unemployment rate among graduates (35.7%) is almost six times higher than that among illiterates (5.5%) and is even higher in the case of technical graduates (39.1%). Contrary to the youth, the unemployment rate (UR) for adults is only 1.2%, but the joblessness among adults those who are graduates, technical graduates and technically qualified below graduates is fairly visible, i.e. 4%, 5% and 6%, respectively.

Further, educated young females have significantly higher UR as compared to their male counterparts. More than 40% of the educated females, who have completed

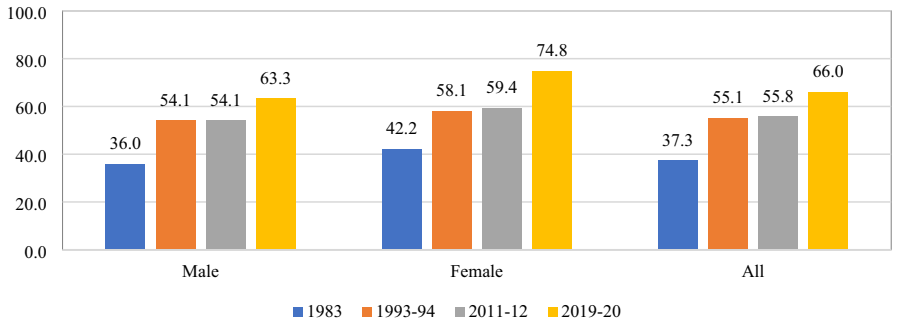

Fig. 3 Share of educated (secondary+) youth unemployed in total unemployed (15+years) (in %): 1983 to 2019–20. Source: EUS and PLFS, NSSO, 1983, 1993–94, 2011–12 and 2019–20

education up to the graduate level, have been found to be unemployed as compared to 34% of the males with similar qualifications (Table 8). This holds true even for the youth who have received formal training. A third of the formally trained youth reported being unemployed in 2019–20. Over the years, the URs among graduates and technically qualified youth have gone up significantly. In the case of graduates, the UR increased from 22% in 2011–12 to 36% in 2019–20 and among technical graduates from 21% in 2011–12 to 39% in 2019–20.

Over the years, the problem of unemployment among the youth has been becoming more and more concentrated among the educated youth. As Fig. 3 shows, in 1983, educated youth accounted for 37% of the total unemployed, with the figure increasing sharply to 66% in 2019–20. As regards women, educated young females account for three-fourths of the total unemployment among females (Fig. 3).

Here, it is pertinent to reiterate one aspect of unemployment among educated youth in India, which is that as the level of education among the educated youth rises, so does the unemployment rate. This is contrary to the characteristics of unemployment observed among the educated youth in the developed countries, where the unemployment rate among youth having acquired advanced level of education is generally lower than for those with intermediate education levels. For instance, the unemployment rates among youth with advanced education levels in Australia, Canada, France, Italy, Spain and USA are 6.0, 11.4, 10.8, 17.3, 19.7 and 8.0%, respectively, whereas the unemployment rates among those with intermediate level of education are 12.2, 19.3, 18.2, 20.7, 37.8 and 14.5,%, respectively. Apart from the nature of employment creation, the high unemployment rates among educated youth also raises the question of quality of education in India, as a result of which a large number of educated youths remain unemployable, and even those who are employed usually find themselves in relatively low-productivity occupations.

3.2 More than Half of India's Working Youth have Skill Mismatch in their Current Occupations

There is also a discrepancy between the demand and supply patterns of labour, with a surplus of unskilled and low-skilled workers, and shortages of workers in the higher-skilled categories, which raises questions about the employability of the huge youth population in the country. Due to their failure to get jobs compatible with their education, a large proportion of surplus labour force gets absorbed in low-productivity distress segments of the unorganised sector, or even, continue to be engaged in family farms.

The high level of unemployment among highly educated youth in India calls for a 'skill challenge'. The skills picked up by the youth during their study are grossly mismatched with those needed in the job market. Around four in ten graduates are looking for a suitable job in the labour market, which does not mean that those graduates who are employed might be doing what they like or getting paid what they desire. This kind of skill mismatch is one of the factors causing unemployment and under-employment among the highly educated youth (ILER, 2014; Mehta and Awasthi, 2020). For a particular occupation or type of job, one needs a particular skill or educational qualification. As per the ISCO and NCO-04 classification, skill level of workers is defined based on two classifications: (i) tasks/occupations and (ii) number of years of formal educational. The skill level of workers is divided into four broad levels of skills, that is, unskilled, low-skilled, medium-skilled and high-skilled.[2] Based on the difference between these

[2] The skills are defined based on two classifications, one by using number of years of formal education, and another, based on occupations (1 digit NCO – 04) in India.

(i) Skill based on formal years of schooling: In the Indian context, the skills necessary to perform the tasks and duties of a given job can be acquired not only through formal education but also through informal training and experience. The four skill levels thus defined for NCO – 04 vis-à-vis the skill levels defined in ISCO – 88 are as.

I: Up to 10 years of formal education and/or informal skills;

II: 11–13 years of formal education;

III: 14–15 years of formal education; and.

IV: More than 15 years of formal education.,

(ii) Skill based on occupations or task performed: In keeping with the skill levels defined above to suit the Indian conditions, the following four divisions are classified in tune with the defined skill levels to accommodate occupations (NCO code 1 digit) same as given in Table 6 as.

I: Typically involves the performance of simple and routine physical or manual tasks (NCO code 9-Elementary Occupations or unskilled such as such as domestic helpers, cleaners, street vendors and garbage collectors etc.); II: Typically involves the performance of tasks such as operating a machinery and electronic equipment, driving vehicles, maintenance and repair of electrical and mechanical equipment and manipulation, ordering and storage information (NCO code 4-8, low skilled as clerical jobs, service workers, shop and market sales workers, craft and related trade workers etc.);

III: Typically involves performance of complex technical and practical tasks that require an extensive body of factual, technical and procedural knowledge in a specialised field (NCO code 3, as professional and technical associates); and.

IV: Typically involves the performance of tasks that require complex problem solving, decision making and creativity based on an extensive body of theoretical and factual knowledge in a specialised field (NCO 2 as professional and technicians).

Table 9 Skill mismatch of youth workforce: 2019–20

Skills based on formal education	Skill based on occupations or tasks performed				
	I	II	III	IV	Total
I	31(82)	68(64)	1(12)	1(10)	100(63)
II	17(13)	74(21)	6(21)	4(12)	100(18)
III	7(4)	64(12)	16(40)	13(29)	100(13)
IV	2(1)	36(4)	21(28)	41(48)	100(7)
Total	23(100)	66(100)	5(100)	6(100)	100
Overqualified	18	16	28	-	16
Under-qualified	-	64	33	52	47
Skill match	82	21	40	48	37
Skill mismatch	18	80	61	52	63

Source: PLFS, NSSO, 2019–20

two skill classifications, a skill mismatch (overeducated, under-educated) exercise has been performed for the employed youth.[3]

Table 9 shows a large mismatch between the required skill levels and the required educational qualifications of workers. This skill mismatch across occupations or job tasks and education/training indicates that around 63% of the youth have skill mismatches in their current occupations or jobs. About 47% are 'overeducated' and are engaged in 'less productive' jobs or 'low-paid' occupations, and 16% are 'under-educated' or 'less skilled' for the tasks they perform in their current occupation.

Further, the level of skills also shows a significant skill mismatch (either under-qualified or overqualified), which is very high in the case of medium- (III) and high-skilled (IV) occupations (Endow and Mehta, 2022). The national-level employability assessment of 65 thousand final year students across India has identified that less than half (45.9%) of the graduates were employable, a decline from 46.2% in 2020 to 47.4% in 2019.[4]

The skill mismatch and preponderance of low skills is one of the important factors leading to a high degree of informality among youth workforce. A large majority of youth workers (89%) are engaged in informal employment without any social security provisions.[5] The informality is higher among the youth in rural areas (95%) compared to urban (77%) and more among male (90%) than female (87%) workers. Even 80% of

[3] Skill Mismatch: The skill-mismatch arises by the difference between type (i) and type (ii), when workers skill level based on education is higher than skill level based on occupation (workers are overeducated); when workers skill level based on education is lower than the skill level based on occupation (workers are undereducated), and if no difference in both level of skills (workers have matching skill). Source: (OECD. OECD Employment Outlook 2014; National Classification of Occupations, 2015, Ministry of Labour and Employment, Government of India).

[4] This is shown by India Skill Report 2021, prepared by Wheebox, in partnership with Tagged, CII, AICTI, AIU and UNDP.

[5] Informal employment consists of those working in the informal enterprises or households, excluding regular workers with social security benefits, and the workers in the formal sector without any employment/social security benefits provided by the employers (NCEUS 2007).

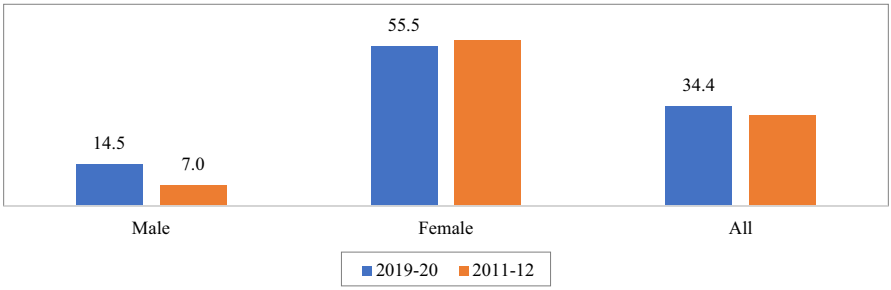

Fig. 4 Youth in NEET category (UPS) by male–female: 2019–20 and 2011–12. *Source*: EUS and PLFS, NSSO, 2011–12 and 2019–20

the employed educated youth are in informal employment. It may also be pointed out, though, that informality has declined to a small extent during last eight years or so.

3.3 Rising Youth in NEET Category, Especially Female

With increasing enrolments rate in education, it is expected that more youth will remain in education before they enter the job market. Education and employment thus naturally comprise the major share among the youth population. But as mentioned earlier there is rising share of the unemployed among them. A large proportion of youth are, however, not engaged either in employment or in education and training (NEET).

Although it should be acknowledged that this indicator still includes those youths who are inactive by choice, it still helps to identify those most at risk of not making a successful transition to work because they are not actively engaged in or preparing for employment. NEET youth tend to experience varying degrees of social and economic marginalisation and are more likely to be left behind in mainstream development. In India, the proportion of youth in NEET has remained high (34%) and is much higher among female youth (56%), who are not able to join the labour market due to structural constraints (Fig. 4). India has the second highest NEET population in the world, only next to South Africa (37%) and more than three times higher than China (11%) and much higher than the world average (22%) (ILO, 2020a, b).

The youth in NEET category are not only high but has also increased, albeit to small extent, from 32% in 2011–12 to 34% in 2019–20. The share of males under the NEET category increased more than twice from 7% in 2011–12 to 15% in 2019–20. This increasing number of NEET youth would not only lead to economic loss for the country, but will also result in adverse social consequences in the future. The further analysis of NEET shows an interesting picture: as one component of NEET (NEET—unemployed) is dominated by males, and other component of NEET (NEET—out of labour force) is dominated by females. This means that NEET rates are much higher for females than they are for males. In India, the NEET category aggregates a minority unemployed group (that is better educated, richer and male) and a much larger majority group (that is less educated, poorer and largely female) (ILO, 2021).

Table 10 Current and projection of youth population, labour force, workforce and estimated additional employment (in million): 2019–20 and 2030

	Population	Labour Force	Workforce	Unemployment	Annual emp generation* 2023–30
2019–20	369	145	121	24	-
2030 (SQ30)	359	141	118	29	4.1
2030(HR30)	359	180	118	62	8.9

Source: PLFS, 2019–20, NSSO; Report on Population Projections, 2011–36, GoI, 2019

Note: * Due to the pandemic, the employment figures for the period 2020–22 have not been considered

4 Challenges of Future Job Creation for Youth

4.1 It is Estimated that there is Need to Create an Additional 29 Million Jobs Under the SQ30 Scenario and 62 Million Jobs Under the HR30 Scenario for Youth in order to Achieve the Target of Productive Employment for All by 2030

The net employment rate needs to grow by 1.5% per year from 2023 to 2030 to achieve a GDP growth of 8–8.5% between 2023 and 2030. As observed earlier, India's unemployed labour force in the working age was estimated to be 28 million in 2020, which largely includes the youth labour force of 24 million. As such, it can be inferred that the core of India's unemployment problem lies in the large-scale prevalence of unemployment among its youth. The proportion of the youth labour force in the country has been estimated for two different possible scenarios (i) Status Quo, 2030 (SQ30) and (ii) High Road (HR30). These are discussed in detail below.

- *The SQ30 Scenario*: This includes estimates based on the projected population in the respective age groups for 2030 and the prevailing labour force participation rate. Under this scenario, the labour force rate is assumed to remain constant, that is, there would be no change in the policy environment.
- *The HR30 Scenario*: This includes estimates based on the target of 50% for participation of youth in the labour force participation and the respective projected population in the respective age groups for 2030.

The estimates given in Table 10 show that under the SQ30 scenario, India needs to create 4.1 million decent and productive jobs annually to meet the SDG target of ensuring full-time employment for its youth labour force. Under the HR30 scenario, on the other hand, more than twice the number, that is, around 9 million, jobs need to be created annually.

Table 11 Regional differences in youth population, 2021, 2031 and 2036

State/UT	Youth population (in million)			Share of youth in working age pop of the state			Share of youth in all India youth pop		
	2021	2031	2036	2021	2031	2036	2021	2031	2036
Andhra Pradesh	13.3	11.3	10.6	37.4	31.5	29.9	3.6	3.2	3.1
Assam	9.7	9.5	9.0	42.7	37.8	35.1	2.6	2.7	2.6
Bihar	35.4	39.0	37.9	49.0	45.2	41.6	9.5	10.9	11.0
Chhattisgarh	8.2	8.2	8.3	43.6	39.0	37.3	2.2	2.3	2.4
Delhi	5.8	6.0	6.1	40.8	35.5	34.0	1.6	1.7	1.8
Gujarat	18.5	18.3	18.4	40.7	36.2	35.0	5.0	5.1	5.3
Haryana	8.2	8.0	8.0	42.7	36.7	35.0	2.2	2.3	2.3
Himachal Pradesh	1.9	1.6	1.5	37.9	32.4	30.3	0.5	0.5	0.4
Jammu & Kashmir	3.9	3.7	3.1	43.7	37.0	31.5	1.1	1.0	0.9
Jharkhand	11.2	11.4	11.1	46.5	41.1	37.9	3.0	3.2	3.2
Karnataka	17.0	15.6	15.0	38.2	33.3	31.8	4.6	4.4	4.3
Kerala	7.8	7.4	7.1	35.0	33.0	32.1	2.1	2.1	2.0
Madhya Pradesh	23.4	23.9	24.0	44.5	39.8	38.1	6.3	6.7	7.0
Maharashtra	32.5	30.1	28.8	39.1	33.7	31.8	8.7	8.4	8.3
Odisha	11.9	11.0	10.4	40.2	35.2	33.1	3.2	3.1	3.0
Punjab	7.9	6.9	6.5	39.0	32.3	30.3	2.1	1.9	1.9
Rajasthan	22.7	22.5	22.2	46.1	40.1	37.7	6.1	6.3	6.4
Tamil Nadu	17.7	15.9	15.0	34.9	31.2	30.1	4.8	4.5	4.3
Telangana	9.9	8.5	7.9	39.0	32.1	30.2	2.7	2.4	2.3
Uttar Pradesh	68.9	66.1	65.0	48.3	40.5	38.0	18.6	18.5	18.8
Uttarakhand	3.3	3.0	2.8	44.5	35.9	32.9	0.9	0.8	0.8
West Bengal	25.8	22.1	20.2	38.8	32.4	30.0	6.9	6.2	5.8

Source: Report on Population Projections, 2011–36, GoI. 2019

4.2 here is a Large Regional Disparity Across the Country in the Youth Employment and Unemployment Figures, reaLisation of the Demographic Dividend and Creation of Decent Employment

There is large disparity across all the Indian states in terms of the employment and unemployment figures for its youth, as well as the creation of decent jobs and optimal realisation of the demographic dividend. Although overall India is a young country, the status and pace of population ageing varies across states. The southern states, such as Tamil Nadu, Kerala, Andhra Pradesh and Karnataka, which are advanced in their demographic transition, already have a higher percentage of older people, while the northern and eastern states such as Bihar, Jharkhand, Chhattisgarh, Rajasthan, Madhya Pradesh and Uttar Pradesh still have a significantly high number of youth and working-age population (IHD-UNDP, 2021 and Table 11).

Table 12 Regional differences in youth employment (in %), 2019–20

State/UT	Educated youth (Secondary +)	Work participation rate	Regular employment**	Educated unemployment(secondary +)	NEET	Average composite score
Bihar	47.6	21.9	11.2	26.2	38.8	43.1
Assam	42.1	24.9	33.5	38.4	42.8	43.9
Odisha	50.7	34.4	18.9	39.3	40.4	44.9
Uttar Pradesh	51.1	27.5	20.0	22.4	39.3	47.4
Jharkhand	49.0	30.9	18.4	21.9	37.9	47.7
Madhya Pradesh	40.1	39.4	16.7	17.8	31.6	49.3
West Bengal	49.1	33.3	28.8	26.0	38.2	49.4
Rajasthan	51.4	33.3	24.7	27.2	31.6	50.1
Jammu & Kashmir	56.7	27.7	32.7	37.2	29.2	50.1
All India	57.2	32.5	30.9	24.7	34.4	52.3
Uttarakhand	60.5	33.6	31.5	27.9	32.2	53.1
Chhattisgarh	51.6	43.6	16.9	19.3	23.2	53.9
Andhra Pradesh	68.2	37.9	30.2	29.2	32.1	55.0
Punjab	62.6	37.8	43.7	25.5	35.7	56.6
Haryana	65.4	30.1	49.9	21.8	37.5	57.2
Karnataka	66.4	38.6	35.7	22.2	31.7	57.4
Kerala	88.2	22.8	54.4	43.0	35.3	57.5
Telangana	79.3	32.8	37.9	30.3	29.6	58.0
Gujarat	54.4	41.0	42.7	9.3	32.9	59.2
Maharashtra	67.6	35.7	39.2	15.5	26.1	60.2
Himachal Pradesh	78.4	41.9	35.2	26.9	22.7	61.2
Delhi	71.0	29.9	72.0	27.8	33.7	62.3
Tamil Nadu	79.7	34.3	56.9	27.3	31.7	62.4

Source: PLFS, 2019–20, NSSO

*The average composite score of the indicators has been calculated after making all the indicators positive or uni-directional to facilitate a comparison across the states with the all-India average

These differences in the age structure across regions and states reflect differences in employment and economic development. In order to facilitate an understanding of the regional division in terms of youth employment and unemployment across the country, the states have been divided into two broad groups, with one being above the national average and the other below the national average. The composition and characteristics of both these groups have been discussed in below.

Group I: Most of the states in this group, such as Bihar, Jharkhand, Uttar Pradesh, Rajasthan, Madhya Pradesh, Assam and Jammu and Kashmir, are characterised by a youth bulge (IHD-UNDP, 2021 and Table 11). These states are also relatively underdeveloped with low per capita income, a low share of the highly educated youth, significant prevalence of unemployment among the highly educated population, low work participation rate (WPR), a lower share of regular employment, high proportion of NEET

population and a higher degree of informal employment than the all-India average (Table 12). The situation is compounded by the relatively low rates of economic development in these states as a result of which they are unable to create sufficient number of local jobs for their youth, which, in turn leads to high out-migration of the workforce from these states. Ironically, it is these very states with low employment opportunities that will see a relatively higher addition in their youth workforce in the coming future and the consequent challenges of generating new jobs.

Group II: Most of the states in this group, especially the southern states such as Tamil Nadu, Kerala, Andhra Pradesh, Karnataka and Gujarat, along with Punjab, Himachal Pradesh, Maharashtra and Telangana, have been experiencing a decline in their populations, leading to a rise in the proportion of the elderly (Table 11). These states have achieved relatively a high level of economic development, as reflected in their high per capita incomes (IHD-UNDP, 2021). Most of the states in this group show a higher WPR as compared to the all-India average except Kerala, Delhi and Haryana, whereas the shares of those with regular employment and of the highly educated youth in almost all the states in this group are also higher than the all-India average (Table 12). However, the educated unemployment rate is the highest among youth in some states, such as Kerala, Himachal Pradesh, Telangana and Tamil Nadu, where the share of the relatively more educated is also higher. This suggests that the employment problem confronting the youth in these states is not simply that of new job creation but more importantly, one of the creating suitable or decent jobs for the highly educated. This situation is in complete contrast to that prevailing in the states in Group I, where the basic goal of creation of new job opportunities for the youth is more important than ensuring decent employment. Overall, a majority of the states in Group II are able to provide jobs locally for the youth except the more educated ones. However, these states will face shortages of less skilled or unskilled workers in the coming years as dependency on these categories of workers keeps rising.

This clearly points to large regional differences in terms of youth employment and unemployment across India, wherein some states need special attention for creating just new jobs, while others are doing well in terms of new job creation but lack an adequate number of decent jobs for their better educated populations.

4.3 Emerging New Technologies and Digitalisation are Paradoxically Leading to Both New Employment Challenges as Well as New Opportunities for the Youth

The dynamic and fast-changing demand for skills emanating from rapid technological advancement, digitalisation and the emergence of a non-standard platform economy (gig economy), are the other emerging issues for youth employment. There is a rapid growth in the adoption of Industry 4.0 digital technologies, leading to various phenomena including rising automation, use of Artificial Intelligence, big data, robotics, three-dimensional printing, crypto currency and cloud computing, among many others, across

the services and industrial sectors in India. There is evidence that automation process is leading to job polarisation, albeit it is significant in only select sectors (auto sector, etc.) The adoption of these advanced technologies is likely to displace the routine, low- and medium-skilled associated jobs while increasing the demand for high-skilled jobs in India (FICCI et al., 2017). The low-skilled jobs may not be affected much in the process of automation. However, simultaneously, these new technologies will also generate a substantial number of jobs for the skilled workforce in the future (Mehta and Awasthi, 2019; Mehta, Laha, and Sharma, 2022). This necessitates the appropriate skilling of youth to enable them to avail of these new emerging opportunities.

On the other hand, the gig work or technology-driven rise of on-demand jobs is emerging as a new employment opportunity for the huge unemployed skilled and unskilled labour force in the country. According to an ASSOCHAM report, there are 15 million freelance or gig workers across India. A Boston Consulting Group report reveals that the gig economy has the potential to generate up to 90 million jobs in the next 8–10 years in India, in the non-farm sector alone. Gig jobs offer flexible hours and better employment opportunities for women helping them achieve a better with work–life balance. However, the gig job is considered as non-standard work and an extension of informal employment without any social security benefits. Most of the gig jobs fall in the lower-income job categories, such as deliveries, ride-sharing, microtasks, care and wellness. The government has taken some steps to include gig workers in the unorganised worker category, and they will be eligible for social security benefits, and health, insurance and old-age benefits. But these and other measures to improve the conditions of gig workers need to be implemented on an urgent basis to override the challenge of profit motive companies trying to avoid incurring additional costs on these worker welfare measures.

5 Conclusions and Policy Pointers

India is still a young country with a high share of youth population and labour force. Demographically, the Indian economy has entered the stage of demographic transition, which is unevenly sequenced across the states, and still provides a last window opportunity (of a little over a decade) for the country to exploit the potential demographic dividend, provided this can be reaped through the implementation of appropriate policies.

More young people are acquiring higher education due to which the share of the youth in the labour force is much lower than their concomitant shares in the total population. However, this is not the only reason for a decline in labour force. Another reason could be slowing down of the growth of the youth population, who are in their school- or college-going years, as compared to the growth of older population. India is also facing the challenge of a high gender gap in the labour market, with low rates of female participation in the labour force. The earlier discussions show that the unemployment challenge confronting India is indeed huge, particularly for the educated youth. It also ironic that while on the one hand, India has one of the lowest labour force participation rates

for women in the world, on the other hand, the unemployment rates among the young women who are joining the labour force is extremely high.

Even with decent levels of economic growth, the economy is unable to create enough suitable additional jobs, particularly for highly educated youth in the country. The increasing rates of unemployment, high informality and temporary nature of jobs, skill mismatches and loss of jobs due to technological changes are posing many serious questions about the future of youth in the country. The pandemic has accelerated changes in the nature of work with an increased focus on digitisation, platform work (gig work) and work-from-home situations. However, the gig economy provides mainly low-paid and non-standard work, which is just an extension of informal work that mostly does not match the high aspiration levels of educated youth. It has also been pointed out that with a rise in education levels in the economy and increase in the household income levels, educated youth are often resistant to taking up jobs requiring low skills and offering low remuneration (UNICEF, 2019).

The Indian state has responded to the unemployment challenge largely by creating a number of livelihood and employment generation programmes for youth as well as other working-age people. Imparting skills training to youth has been an important agenda in recent years, which is also evident from the creation of a new Ministry of 'Entrepreneurship and Skill Development'. Some of the important programmes for employment generation and skill development that have recently been initiated include the Prime Minister Employment Generation Programme (PMEGP), National Rural Livelihood Mission, National Urban Livelihood Mission, MUDRA, National Skills Mission, the National Apprenticeship Promotion, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Deen Dayal Upadhyay Grameen Kaushal Yojana (DDU-GKY), Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), setting up of a Rural Development and Self-employment Training Institute (RUDSETI), and other innovative initiatives like Hunar Se Rozgar Tak, Skill India, Digital India, Startup India, among many others. While all these schemes and programmes have made their own contributions in the generation of livelihood and employment opportunities, they are still not adequate to meet the current as well as future challenges posed by the problem of unemployment among youth.

It is beyond the scope of this paper to provide a comprehensive and suitable policy agenda to address this critical issue. However, some pointers towards policies and strategies are in order. Many of these policy suggestions have been articulated earlier also. While some of them are appropriate for all the working-age population, others are more specific for youth.

- There is need for integrating the employment creation agenda with macro and other economic policies. Different ministries need to incorporate the task of job creation in all their programmes and policies. Even the period of high economic growth did not create enough high-quality jobs in the country. As mentioned earlier, the development path of the Indian economy has been led by services, unlike the experiences of

the developed countries where the manufacturing sector was the engine of growth before a revolution in the services sector took place. Although the nature of manufacturing employment has considerably changed due to technological developments, it is no longer as labour-intensive as it used to be earlier. However, it still needs to be recognised as a driver of growth at least for the next one decade or so (Ghose, 2016). Manufacturing has stronger linkages with other sectors and it also has multiplier effects. This does not mean that the agriculture and services sectors should be neglected. In fact, modernisation and prosperity in agriculture will significantly contribute to the growth of both manufacturing and services.

- Regulatory interventions in informal enterprises should ensure that a minimum quality of employment is maintained and that the basic rights of workers are respected. Formalising the informal enterprises and providing social protection for workers along with other such policies will act as an effective measure towards enhancing the quality of employment and alleviation of poverty in the country.
- There is also a need to urgently formulate appropriate policies and measures to address the issue of education and skills acquisition, and of mismatches in skills among the workforce. The rising aspirations of youth need to be met and rising levels of education are likely to further exacerbate this challenge.
- Another challenge is the need for augmenting the quality of education at all levels. In fact, a minimum level of good quality education (say secondary and higher secondary) is essential even to acquire necessary skills as well as compete in the changing labour market. The fact that Indian universities fair poorly in terms of global rankings is an important indicator of the poor quality of higher education in the country. Educated youth with quality education will be able to compete internationally as the IIT graduates have shown.
- In the case of NEET, India needs different strategies for two components of youth: one, the NEET (OLF) category, wherein a majority of those not falling in the 'out of the labour force category that is less educated, poorer and dominantly female, and second, the NEET (U) category comprising the minority unemployed group that is better educated, richer and male-dominated. For the first category of females, the primary reasons guiding their relation with the labour market are their family and child care responsibilities and general lack of willingness among families to let them work. This also includes those who are interested but are unable to find full-time employment near to their place of residence. Therefore, lessons on the importance of sharing family and care responsibilities should be a part of school or college education in order to encourage more women to participate in the labour market. For the second category, the relevant vocational and technical education and training need to be introduced with wider consultation among industry and other stake holders. Skill training courses should be made relevant, while taking into account specific state characteristics and needs. Skill training schemes have largely failed in the recent past due to the unavailability of local jobs and employment opportunities for trainees.

Because of unsustainable remunerations, trainees have often left their jobs in other districts/states. In particular, women prefer jobs locally. Therefore, after skill training, emphasis should be laid on ensuring placements at nearby places or in relevant industries, with a focus on promoting local entrepreneurship.

- Given the differences in labour market conditions and development trajectories among various states in the country, there is need of a differentiated policy approach wherever needed. The states differ in terms of infrastructure, educational attainment, etc. An important agenda should be to develop the infrastructural needs of the backward states along with educational facilities, urban development, etc.
- India is likely to experience a higher rate of urbanisation and migration in future as more and more educated youth would aspire to seek decent employment, which would be available mostly in urban areas. Urban planning and migration policies have been neglected in the country. These issues should form an important part of the agenda for generating jobs for youth in future. The development of small and medium towns should also be an important component of this agenda.
- More and more educated women would be seeking and aspiring for good jobs in future. Currently, women-friendly jobs are generally not being created. Policies thus need to be formulated that can take care of the needs of future women workers in terms of infrastructure facilities, amenities and safety at the workplace. Such policies should form part of the future urban planning and development agenda.
- Rapid technological developments are making labour markets increasingly complex. Implementation of effective policy thus entails effective mapping and documentation of the labour market and employment trends. New employment patterns and labour market issues, as wells as new income opportunities and new institutions are constantly emerging. The diverse and complex character of work and employment in India needs to be analysed more comprehensively. In spite of concerted efforts, credible labour market statistics are still far from satisfactory. In-depth studies of new developments in the labour market and access to high-quality and intuitive data will help in better addressing the problem of employment, in general, and of youth employment, in particular.

The above and other such policies and their proper justification are imperative not only for being able to reap the demographic advantage that is likely to exist in the country only for the next decade or so, but also to ensure its social stability and prosperity.

Appendix

See Tables 1A, 1B, 2A, 2B and 3A.

Table 1A Share of Youth (15–29 years) Workforce (in %) across Industries

	Male	Female	Total
2019–20			
Agriculture, etc	31.8	47.6	35.2
Mining and Quarrying	0.4	0.0	0.3
Manufacturing	13.7	17.0	14.4
Electricity, Gas and Water supply	0.8	0.2	0.7
Construction	18.4	4.5	15.4
Trade, Hotel and restaurants	16.0	8.5	14.4
Transport, Storage and Communication	8.8	2.7	7.4
Finance, Business, Real Estate, etc	3.7	4.0	3.8
Public Admin, Health, education, etc	6.4	15.5	8.4
Total	100.0	100.0	100.0
2011–12			
Agriculture, etc	38.6	51.9	41.3
Mining and Quarrying	0.7	0.4	0.6
Manufacturing	15.2	19.8	16.2
Electricity, Gas and Water supply	0.6	0.2	0.5
Construction	15.9	4.7	13.6
Trade, Hotel and restaurants	13.4	4.9	11.7
Transport, Storage and Communication	6.9	1.7	5.8
Finance, Business, Real Estate, etc	2.6	2.0	2.4
Public Admin, Health, education, etc	6.0	14.3	7.7
Total	100.0	100.0	100.0

Source: EUS and PLFS, NSSO, 2011–12 and 2019–20

Table 1B Share of Adult (30–59 years) Workforce (in %) across Industries

	Male	Female	Total
2019–20			
Agriculture, etc	38.9	59.7	44.6
Mining and Quarrying	0.4	0.1	0.3
Manufacturing	11.1	9.9	10.8
Electricity, Gas and Water supply	0.8	0.3	0.7
Construction	13.6	4.7	11.2
Trade, Hotel and restaurants	15.4	8.5	13.5
Transport, Storage and Communication	7.8	0.8	5.9
Finance, Business, Real Estate, etc	3.7	1.7	3.1
Public Admin, Health, education, etc	8.3	14.4	9.9
Total	100.0	100.0	100.0
2011–12			
Agriculture, etc	42.4	61.9	47.0
Mining and Quarrying	0.7	0.4	0.6
Manufacturing	11.5	10.9	11.4
Electricity, Gas and Water supply	0.7	0.4	0.6
Construction	11.6	5.2	10.1
Trade, Hotel and restaurants	13.6	5.8	11.8
Transport, Storage and Communication	7.0	0.6	5.5
Finance, Business, Real Estate, etc	3.1	1.1	2.6
Public Admin, Health, education, etc	9.4	13.7	10.4
Total	100.0	100.0	100.0

Source: EUS and PLFS, NSSO, 2011–12 and 2019–20

Table 2A Share of Youth (15–29 years) Workforce (in %) across Occupations—All

	Male	Female	All
2019–20			
Legislators, senior officials and managers	6.4	5.7	6.3
Professionals-IV	3.8	8.1	4.7
Technicians and associate professionals-III	3.3	8.1	4.4
Clerks-II	2.5	3.6	2.8
Service workers and shop, market sales workers-II	11.5	7.1	10.6
Skilled agricultural and fishery workers-II	23.1	31.6	24.9
Craft and related trades workers-II	16.3	11.8	15.3
Plant and machine operators and assemblers-II	9.1	1.7	7.5
Elementary occupations-I	24.0	22.2	23.6
Total	100	100	100
2011–12			
Legislators, senior officials and managers	5.5	3.9	5.2
Professionals-I	2.9	5.4	3.4
Technicians and associate professionals-II	2.6	5.5	3.2
Clerks-III	1.9	2.5	2.1
Service workers and shop, market sales workers-III	9.1	4.8	8.2
Skilled agricultural and fishery workers-III	23.5	28.9	24.6
Craft and related trades workers-III	17.0	15.2	16.6
Plant and machine operators and assemblers-III	7.5	1.9	6.4
Elementary occupations-IV	30.0	31.9	30.4
Total	100	100	100

Source: EUS and PLFS, NSSO, 2011–12 and 2019–20

Table 2B Share of Youth (15–29 years) Workforce (in %) across Occupations (excluding NCO code -1)

	Male	Female	All
2019–20			
Professionals-IV	4.0	8.6	5.0
Technicians and associate professionals-III	3.6	8.6	4.7
Clerks-II	2.7	3.8	2.9
Service workers and shop, market sales workers-II	12.3	7.5	11.3
Skilled agricultural and fishery workers-II	24.7	33.5	26.6
Craft and related trades workers-II	17.4	12.6	16.3
Plant and machine operators and assemblers-II	9.7	1.8	8.0
Elementary occupations-I	25.6	23.6	25.2
Total	100	100	100
2011–12			
Professionals-IV	3.1	5.7	3.6
Technicians and associate professionals-III	2.8	5.7	3.4
Clerks-II	2.1	2.6	2.2
Service workers and shop, market sales workers-II	9.6	5.0	8.7
Skilled agricultural and fishery workers-II	24.8	30.1	25.9
Craft and related trades workers-II	18.0	15.8	17.5
Plant and machine operators and assemblers-II	8.0	2.0	6.7
Elementary occupations-I	31.7	33.2	32.0
Total	100	100	100

Source: EUS and PLFS, NSSO, 2011–12 and 2019–20

Table 3A Level of Education by Male–Female: 2019–20

Education	Youth			Adults		
	Male	Female	Total	Male	Female	Total
Illiterate	7.7	12.8	10.3	19.7	39.6	29.8
Below Secondary	41.2	41.0	41.1	42.1	36.4	39.2
Secondary/Higher Secondary	32.9	28.8	30.8	24.4	15.1	19.7
Graduate +	13.9	14.1	14.0	11.2	7.5	9.3
Technical Graduate	3.6	2.9	3.2	2.1	1.1	1.6
Technical below Graduate	0.6	0.5	0.6	0.4	0.3	0.3
Total	100	100	100	100	100	100

Source: EUS and PLFS, NSSO, 2019–20

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