

Youth in India: challenges of employment and inclusion

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Published online: 26 August 2016
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Abstract Using the NSSO data on Employment and Unemployment, this paper examines issues of employment and unemployment among Indian youth belonging to various social and religious groups since the advent of the economic reforms in the early 1990s. It shows how an increasing proportion of the youth population is facing situations of high open unemployment during a period of high economic growth. The predominance of the poor quality of employment available to youths is also a major issue of concern, especially for those belonging to the Scheduled Castes, Scheduled Tribes and Muslim communities. Using the Logit Model, the paper shows how education, gender, social belonging and location play significant roles in determining youths participation in labour force, education and quality of employment. The paper argues for strengthening measures to create decent employment on a large scale and for improving the education and skill levels of youths with a greater focus on those belonging to the marginalised groups of Indian society.

Keywords Youth · Employability · Human capital

An earlier version of this paper was presented at the 57th Annual Conference of the Indian Society of Labour Economics (ISLE) during 17–19 December 2014 in Ranchi and at the Second International Conference and Doctoral Colloquium on “Transformative Social Science Research: Disciplines, Collaborations and Think Tanks”, Institute of Public Enterprise, Hyderabad, 3–4 March 2015.

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The issue

Accounting for a population of over 333.4 million in 2011, the youth¹ represent 27.5 % of the Indian population (GoI-RGI 2012). India is among the few countries having the advantage of being home to a relatively higher proportion of younger population. Across the world, every fifth youth is an Indian. This demographic dividend of a rising share of the working age population (15–59 years), which started in the early 1980s is likely to remain till 2025 (ILO 2013; Aiyar and Mody 2011). Such a huge proportion of a relatively young population in India is expected to add to both its economic growth and the consequent demand for goods and services (Bloom and Canning 2004; Aiyar and Mody 2011). However, this ‘demographic dividend’ can turn into a ‘demographic nightmare’ if opportunities are not created for the all-round development of the youth, including decent employment (Chandrasekhar et al. 2006). The information technology (IT) revolution and increasing use of social media have facilitated an unprecedented mobilisation of the youth to reflect on issues of their concerns (World Bank 2013a). Uprising in the Middle East, called the ‘Arab Spring’, and the voices criticising corruption and demanding clean governance in India are examples of mobilisation of the youth to bring about a change in the existing systems.

The major issues that confront the youth include the high incidence of unemployment as well as underemployment, limited opportunities for remunerative jobs, low levels of education and skills, and the quest for identity and dignity (ILO 2013; FES 2012; Mitra and Verick 2013). All this applies to India as well. The youth suffer disproportionately more than others from slow growth in employment opportunities and during economic slowdown (ILO 2013). Moreover, the growth process in India has also resulted in rising inequality in incomes and human capital formations, which, in turn, has caused significant disparities across various social groups and regions (Planning Commission 2013). The marginalised sections of the population, such as Scheduled Tribes (STs) and Scheduled Castes (SCs) still remain at the bottom of the social hierarchy in terms of various socio-economic indicators of development (Mamgain 2013). Much of their slow development is increasingly being attributed to social exclusion and discrimination which they continue to face in their daily lives in various forms (World Bank 2013b; Thorat and Newman 2010).

Growing mismatches in the demand and supply of education and skills is yet another dimension that affects the overall employability of youth in India and several other countries as well (ILO 2010; Chadha 2000; Mamgain 2010). While on the one hand, employers complain against shortages of skilled manpower that pose hurdles in their expansion (India Skills Report 2014; ILO 2013), on the other hand, there is a very high rate of unemployment among educated youth, particularly women (Dev and Venkatanarayana 2011). Employers find a large number of job-seekers unemployable due to insufficient exposure of the latter to practical aspects of education.

Given this brief background, we examine the questions of unemployment, employment and human capital formation of Indian youth belonging to various social and religious groups across different regions since the advent of economic reforms in the early 1990s. The second section of the paper examines the pattern of participation of youths in the labour force. Section III analyses the nature and pattern of employment among youth with a focus on its quality. Section IV analyses the situation of unemployment among the youth. Section V examines the human capital base of the youth population and its quality and

¹ We consider the population aged 15–29 years as youth for our analysis in the present paper. Many programmes of the Government of India aimed at youth also cover the age group of 15–29 years.

shows how a large section of the youth is still characterised by low levels of educational attainment and skill training. The determinants of youth employment are discussed in Section VI, while the policy implications are discussed in the concluding section.

The paper is based on National Sample Survey Organisation's (NSSO) large sample unit level data on 'Employment and Unemployment' for the years 1993–1994, 2004–2005 and 2011–2012, highlighting the post-economic reform scenario with regard to youth employment in India. The data pertain to usual activity status (UPSS) of persons.² The analyses in the paper have been presented across the following five socio-religious groups: (1) Scheduled Tribes (STs), (2) Scheduled Castes (SCs), (3) Other Backward Caste-Muslims (OBC-Muslim), (4) Other Backward Caste-Others (OBC-Other), (5) Other Caste-Muslims (OC-Muslims) and (6) Others (OCs). The OCs include Hindu, Christian, Jain and Buddhists excluding first five categories of Indian population. This analysis facilitates a comparison of the situations pertaining to youths belonging to various socio-religious groups and the inter-group disparities among them.

Participation of youth in labour market

The ideal situation would be when almost all persons up to the age of 24 years are able to complete their tertiary level of education, which would imply their reduced participation in the labour force as most of them would be studying. The reality, however, is that a large percentage of the youth in the country today is either working or seeking work, i.e. labour force. In 2011–2012, about 146.8 million youths, representing over 44.4 % of the youth population, were in the labour force, including 9.14 million as unemployed.

Age group-wise, about one-fourth of the youth population in the 15–19-year age group was in the labour force (Table 1). Another 63 % of them were students. However, within the next age group of 20–24 years, the labour force participation rate (LFPR) jumped to 50.5 % and further increased to 64 % in the age group of 25–29 years during the year 2011–2012. As opposed to this trend, the proportion of youth acquiring education declines substantively with the higher age groups. A sizeable proportion of youths were simply engaged in other domestic chores. Thus, the proportion of youths in the labour force was less than that in the age group of 30–59 years (68.5 %) in 2011–2012 (Table 1).

Gender-wise, 63.4 % of the males and 24.1 % of the females among the youths were in labour force. This kind of disparity in the LFPRs between young males and females exists across all the three age groups of the youth (Appendix Table 1). Further, the share of students among the female youth population was also proportionately much less than that of their male counterparts. Thus, over half of the female youths were neither in the labour force nor acquiring any education. Over 27 % of the females in the age group of 15–19 years were neither studying nor doing any job. This high ratio of females in the age cohorts of 20–29 years vis-à-vis the corresponding proportion of females in the next age cohort of 30–59 years shows the high degree of involvement of female youths in the homecare economy.

The participation of youths in the labour force also varied significantly among different social groups. It was highest among ST youth (56.1 %), followed by SCs (47.3 %), OBC-Muslims and OBC-Others (about 44 % each), and the lowest among OCs (38 %). The reverse trends can be observed with regard to the participation of youths in education

² By using the UPSS approach, students working in their subsidiary capacity get included as workers. However, such number is not large, thus not affecting the overall trends.

Table 1 Participation of youths in labour force, 2011–2012 (%) *Source:* Calculated from the Unit Record Data of the 68th Round on Employment and Unemployment, National Sample Survey Organisation (NSSO), Government of India, New Delhi, January 2014. For rest of the tables, the data source is the same as in Table 1

Age group (years)	1993–1994	2004–2005	2011–2012
15–19	43.81	39.29	23.35
20–24	63.34	61.87	50.54
25–29	70.98	71.48	63.65
15–29	58.46	63.13	44.36
30–59	74.81	74.95	68.5
15–59	67.13	72.77	58.04
Total	42.78	43.00	39.28

except in the case of Muslims. The proportion of youths who were neither in the labour force nor acquiring education was the highest among OBC-Muslims and the least among STs. The low level of participation of young females in the labour market is, however, a common feature for all social groups. However, it was the lowest in the case of OBC-Muslims and OBC-Others (17 % each), followed by OC-Muslims and OCs (19.3 % each), SCs (25 %), and STs (41.5 %). These deviations can be partly attributed to the interplay of various socio-cultural, economic, religious and ethnic factors resulting in their overall low participation in the labour market (Mitra and Verick 2013).

A crucial question is as to how the LFPRs of the youth have changed over the period of 18 years from 1993–1994 to 2011–2012. There has been a sizeable reduction of over 14.1 % points in the participation of the youth in the labour market between 1993–1994 and 2011–2012. This decline has been more pronounced, at over 20.5 % points, in the age group of 15–19 years and moderate at about 12.8 % points, in the next age cohort of 20–24 years. The share of student population, on the other hand, increased over the period (“Table 10 in Appendix”). While a major decline of nearly 19 % points in the LFPRs of the youth occurred during the period 2004–2005 to 2011–2012 alone, it increased by 4.7 % points during the earlier period (1993–1994 to 2004–2005).³ The percentage share of students in the youth population increased marginally from 15.9 % in 1993–1994 to 16.5 % in 2004–2005, and almost doubled to over 30 % by 2011–2012. This jump in the ratio of students in the youth population has been witnessed in the case of both genders, but has been more conspicuous in the case of females. There has also been a big jump of 12 % points in the female youth population categorised as ‘Others’ in the age group of 25–29 years, who mainly comprise young women engaged in domestic chores and other homecare activities, during the period 1993–1994 to 2011–2012. Similar decline of 5 % points has been noticed for females in the age group of 20–24 years and of about 12 % points for those in the age group of 30–59 years.

In the case of social groups, the highest decline of 20.4 % points in LFPRs was among ST youths between 1993–1994 and 2011–2012, followed by the SCs (nearly 16.8 % points). The corresponding increase in the proportion of students has been the highest for OBC-Others (12.9 % points), followed by OCs, (10.7 % points), and SCs, (10.3 % points)

³ This has been largely attributed to overestimation of work as ‘unpaid family workers’ (for details see Ghose 2013).

and least (6.9 % points for OBC-Muslims) during the period 2004–2005 to 2011–2012 (Mamgain and Tiwari 2015). Thus, the decline in the LFPRs of youth can be explained in terms of their rising enrolment/retention in the spheres of secondary and tertiary education, to a large extent, and is partly caused by the withdrawal of females from the labour market with their rising household income and also withdrawal from the labour force due to the lack of remunerative employment opportunities (Neff et al. 2012; Rangarajan et al. 2011). The non-recording of women's work in recent years is also cited as yet another reason for the low LFPRs among women (Hirway 2014).

The employment challenge

Growth in youth employment

About 137.6 million youth were reportedly workers in 2011–2012, accounting for 29.1 % of the total workforce in India. Over 60 % of the male and nearly two-fifths of the female youth population were categorised as workers in 2011–2012 (NSSO 2014). The growth rate of the youth employment was around 1.3 % per annum during the period 1993–1994 to 2004–2005, but thereafter declined in absolute terms between 2004–2005 and 2011–2012, at the rate of -1.39 % per annum (Table 2).⁴ This decline has been mainly witnessed in the case of the female youth workers, more so due to their increased participation in education and partly withdrawing from the work (“Table 10 in Appendix”). Contrary to this pattern, growth in employment of adult male workforce was significantly higher, but tended to decline in absolute terms for females. The reasons for withdrawal of females from labour force have been already mentioned in the previous section.

In the following section, we have analysed the nature and quality of youth employment and trends therein since the 1990s.

Quality of employment

Employment is generally categorised in terms of self- and wage employment. The self-employed category is a mixed bag of a large range of activities fetching income from very high to very low and therefore cannot be clearly ranked in terms of the quality of employment. Wage employment consists of regular salaried workers and casual wage workers. Regular salaried work is generally considered as a decent form of employment with the lowest incidence of poverty among such workers. Casual wage work is generally the worst form of wage work with uncertainties and fluctuations in income. The incidence of poverty among casual wage labourers is the highest of all forms of employment. The self-employed category of workers is marginally better than casual wage workers because of the prevalence of comparatively low levels of poverty among them.

Self-employment still remains a dominant form of work, engaging a highest 46 % of the youth workforce in 2011–2012. Another one-third of the youth workers were engaged in casual wage works, while the remaining were working in regular salaried jobs (Table 3). How does this structure of employment differ between youth males and females? Despite their low LFPRs, the broad structure of employment among women is similar to that of their male counterparts, that is, the highest number of young women were self-employed, followed by those engaged in casual wage labour, while the least number were engaged in

⁴ See Ghose (2013) for overestimation of workforce in 2004–2005.

Table 2 Growth rate of employment among youth

	Youth			Adult		
	1993–1994 to 2004–2005	2004–2005 to 2011–2012	1993–1994 to 2011–2012	1993–1994 to 2004–2005	2004–2005 to 2011–2012	1993–1994 to 2011–2012
Male	1.46	−0.39	0.73	2.38	2.77	2.53
Female	0.89	−3.83	−0.98	2.73	−0.81	1.34
Total	1.28	−1.39	0.23	2.50	1.66	2.17

Table 3 Nature of employment available to youth

Year	Male			Female			All		
	SE	REG	CL	SE	REG	CL	SE	REG	CL
1993–1994	52.53	13.64	33.82	53.75	6.02	40.23	52.93	11.14	35.93
2004–2005	49.44	17.05	33.51	59.99	8.61	31.39	52.80	14.36	32.84
2011–2012	42.68	22.86	34.46	55.64	16.55	27.81	46.06	21.22	32.72

SE self-employed, *REG* regular salaried employment, *CL* casual wage labour

regular salaried employment. However, the proportion of young women working as self-employed was substantially high as compared to young men. The opposite is their share in the case of regular employment opportunities.

The structure of youth employment varies significantly across different socio-religious groups. Nearly half of the youth workers except SCs were self-employed during 2011–2012. The opposite is the case of the SC youths as half of them were working as casual wage labourers. The low proportion of SCs in self-employment and the corresponding high percentage of this social group in casual wage labour, unlike other social groups including the OBCs, STs, OCs and Muslims, are largely associated with the highest incidence of landlessness among SCs. This historical disadvantage still continues wherein a large majority of the SC youth workers continue to work as casual wage labourers. The situation of ST youths is similar to that of their SC counterparts, as nearly as 42 % of the ST youths were found to be engaged in casual wage works in 2011–2012. This pattern is largely the result of growing landlessness among the STs, which, in turn, has been associated with their displacement in recent years. The situation of OBCs and OC-Muslims falls somewhere between that of the STs and the OCs. In contrast, the proportion of casual labourers was the lowest (14 %) among youths belonging to the category of OCs (Mamgain and Tiwari 2015).

This kind of divergence in the structure of youth employment is also visible while analysing their share in regular salaried employment. While the highest 37 % of the OCs youth workers were employed in regular salaried jobs, merely 8 % of the ST youths were employed in such jobs. The share of OBCs, Muslims and SCs in such employment ranged between 18 and 20 %, respectively, during the year 2011–2012.

The trends in the structure of youth employment over the past 18 years since 1993–1994 show a slow pace of change—a decline of about 7 % points in the share of self-employment and another 3 % points decline in casual employment. The corresponding increase was seen in regular salaried employment. A remarkable increase was witnessed in the share of women entering into regular employment with a corresponding decline in

casual wage work. In the case of male youths, their share in casual wage employment almost remained constant over the period, while the corresponding decline in self-employment has been in favour of regular salaried jobs (Table 3).

Among various social groups, the highest decline of nearly 12 % points in the share of self-employed was observed in the case of OBC-Muslim and OC youths during the period 2004–2005 to 2011–2012. The categories of OBC-Others, SCs and OC-Muslim youths also witnessed a substantial shift of about 8, 5 and 3 % points, respectively, from self-employment to regular wage employment. Thus, much of the shift away from self-employment has been in favour of regular salaried employment for youths belonging to all socio-religious groups except for OBC-Muslim youths, whose share in both casual as well as regular employment increased during the period 2004–2005 to 2011–2012. A look at the longer period of about two decades shows that the proportion of SC youth workers in regular salaried jobs more than doubled from 7.7 % in 1993–1994 to 17.7 % in 2011–2012. This can be termed as a healthy trend for SCs despite a largest proportion (about 49.8 %) of them still working as casual wage labourers (Mamgain and Tiwari 2015).

Industrial structure of youth employment

Although there has been a significant shift of the entire Indian workforce from agriculture to the industry and service sectors over the past two or three decades (Papola and Sahu 2012), still relatively higher proportion (nearly 43 %) of the youth workers are engaged in agriculture and allied activities. The next important industrial sectors are manufacturing and construction, with each of them employing about 16 and 13 % of youth workforce, respectively, in 2011–2012. Over one-tenth of the youth workers were employed in trade and other services each (Table 4).

The industrial diversification has not been uniform for workers across their socio-religious groups. Still in 2011–2012, STs, OBC-Others and SCs had large dependence on the agriculture and construction sectors. About 42.3 % of the SC youths were engaged in agriculture, mainly as casual wage workers. The employment structure of OC and Muslim youth workforce is highly diversified, with their sizeable share in manufacturing and services sector. As would be seen later, this shift in their employment, particularly that of OCs, has been significantly facilitated by favourable economic and social endowments in

Table 4 Industrial structure of youth employment, 2011–2012

Industry group	STs	SCs	OBC-Muslims	OBC-Others	OC-Muslims	OCs	Total
Agriculture	68.16	42.34	21.68	48.62	24.92	33.86	43.26
Mining and quarrying	0.62	0.77	0.70	0.6	0.16	0.52	0.60
Manufacturing	5.82	13.3	28.33	13.92	31.94	19.2	16.13
Electricity, gas and water supply	0.3	0.4	0.26	0.72	0.74	0.43	0.52
Construction	14.45	20.54	16.91	10.6	13.06	6.48	12.96
Trade, hotels and restaurant	3.87	7.15	17.06	10.86	16.63	16.66	11.21
Transport storage and communication	2.08	5.29	8.0	5.12	6.61	6.16	5.31
Other services	4.7	10.21	7.07	9.56	5.93	16.69	10.01
Total	100	100	100	100	100	100	100

terms of land, education, and social status, among other things including social networks (Munshi 2011).

Unemployment among youth

The number of unemployed youths in India swelled from 5.60 million in 1993–1994 to 7.88 million in 2004–2005, and further to 9.14 million in 2011–2012, increasing at the rate of 2.75 % annually during the entire reference period. Thus, the unemployed youth represented 84.7 % of the entire unemployed population in the country in 2011–2012. The incidence of unemployment is almost three times higher (6.2 %) among youths as compared to adults (2.2 %). Gender-wise, the rate of unemployment is higher among young females particularly in the urban areas (14.1 %) as compared to young males (8.25 %). The corresponding figure for rural areas is about 5 % each for males and females. The rate of unemployment among the youth increased steadily from nearly 4 % in 1993–1994 to 5.4 % in 2004–2005, and to 6.2 % by 2011–2012 (Table 5).

Mismatch between education and employability

The incidence of unemployment is generally high among youth and that more so among educated. Youths having graduate degree including technical and professional educational attainments suffer with the highest incidence of unemployment as about 20 % among them were unemployed in 2011–2012. The next highest incidence of unemployment is among those having diploma-level professional and technical education (Table 5).

Female youth with higher level of education suffer with high incidence of unemployment as compared to their male counterparts. For example, about 26 % female youth with graduate and above education were unemployed as compared to 17.4 % of their male counterparts in 2011–2012 (Mamgain and Tiwari 2015). Reasons for such high incidence of unemployment among young females include responsibilities of homecare economy, limited mobility due to various socio-economic constraints and prevalence of gender discrimination in recruitment and wages (IHD-ISLE 2014).

Similarly, the rate of unemployment among graduate youths varied from a highest 32.9 % in the case of OCs to 19.3 % in the case of OBC-Others. As regards the youth who have acquired diploma-level education (below the graduate level), incidence of unemployment

Table 5 Education-specific unemployment rates among youths

Education level	1993–1994	2004–2005	2011–2012
Illiterate	0.59	1.02	1.72
Up to primary	2.00	2.79	3.03
Middle	5.93	4.70	4.47
High school and higher secondary	11.85	10.34	7.40
Diploma and certificate	21.21	20.11	15.98
Graduate and above	23.82	21.45	19.86
Technical degree	7.69	18.21	20.79
Technical diploma not equivalent to a degree	22.57	19.95	18.20
Technical diploma equivalent to a degree	23.75	20.17	17.03
Total	3.98	5.44	6.23

among the SC, OBC-Others and ST youths is much higher as compared to OCs (Table 6). It appears that the acquisition of degree-level technical education has significantly improved the employability of youths in the categories of SCs, OBC-Muslims and OBC-Others, as compared to STs, OC-Muslims and ‘OCs’. This is possibly due to the implementation of the reservation policy in public employment and also the incidence of a growing number of SC and Muslim youth taking up private sector regular salaried jobs in recent years.

As regards the changes in the incidence of unemployment over the years, it increased substantially among illiterate and less educated youth during the period 1993–1994 to 2011–2012, but decreased significantly in the case of those having attained higher levels of education, barring those with technical degrees (Table 5). In fact, the unemployment rate among graduates with technical degrees more than doubled between 1993–1994 and 2004–2005, and increased further to nearly 21 % in 2011–2012. The rate of decline in the incidence of unemployment has been substantive (ranging from 2 to 3 % points) for those youths with technical diplomas and high school graduates.

In brief, the overall employability of youths has declined over the years, which is largely due to the rising incidence of unemployment among youths with education levels up to or below middle school. The reduction in unemployment rates among those with educational levels up to secondary school and higher except graduates with technical degrees largely confirms that an improvement in the education levels of youths has led to a concomitant improvement in their employability since early 1990s. However, the prevalence of a high rate of unemployment among graduates and technical degree-/diploma-holders is still a matter of concern. This also justifies the concerns of employers regarding the poor education and skill levels of youths passing out of higher and technical educational institutions. There is a huge disconnect between the theoretical learning and practical knowledge being imparted in educational institutions. Moreover, the mushrooming growth of technical education institutions during the last two decades has grossly undermined the quality of vocational and technical education in the country. As a result, the demand for degree-level technical education offered by private institutions has significantly reduced as evidenced in a sizeable number of seats remaining vacant therein in recent years. Many private institutions offering degree-level technical education are now also offering diploma-level education. The demand for such diploma-level courses is increasing as

Table 6 Unemployment rates among youth by their social groups, 2011–2012

Education level	STs	SCs	OBC-Muslims	OBC-Others	OC-Muslims	OCs
Illiterate	0.62	1.98	3.62	1.46	2.61	1.18
Up to primary	0.97	4.12	3.70	1.73	5.32	4.22
Middle	3.06	4.56	5.68	4.12	9.18	3.82
High school and higher secondary	12.10	6.84	10.16	5.87	11.03	7.37
Diploma and certificate	14.34	20.43	9.86	20.09	11.47	10.11
Graduate and above	24.73	22.92	25.93	19.29	32.95	17.54
Technical degree	33.03	15.08	21.82	18.71	39.32	21.44
Technical diploma not equivalent to a degree	20.47	23.87	16.62	20.55	13.62	13.33
Technical diploma equivalent to a degree	11.50	8.33	20.87	14.37	12.50	20.54
Total	4.11	5.62	6.36	5.61	8.29	8.49

industry is getting technically qualified undergraduates at comparatively low salaries. The emphasis of Prime Minister Narendra Modi on imparting skills among Indian youths for helping them improve their employment prospects, coupled with the current initiatives under the National Skill Development Mission, should ensure that the gap between current education levels and needs of the industry is bridged by ensuring both the quality and the relevance of technical education in the country.

Human capital formation among youth

There has been a remarkable improvement in the educational attainments of youths, particularly after 2004–2005. The proportion of youth population pursuing their education almost doubled during the period 1993–1994 to 2011–2012. Paradoxically, about 30 % of the youth were attending educational institutions in 2011–2012 (“Table 10 in Appendix”), yet over 13 % of the youth in the country still remained illiterate. While over 55 % of the youth population had acquired education up to the middle school level, another 35 % of attained education up to the high school and higher secondary level. The share of graduates among the youth stood at 8.6 %, but the proportion of those with technical education was abysmally low, little over 3 % of the total youth population (Table 7).

If seen gender-wise, over 18 % of the female youths were illiterate as compared to the much lower corresponding figure of 8.5 % for their male counterparts. Interestingly, the proportion of graduates among female youths was close to that for males (over 8 %). However, the proportion of female youths having technical degrees and diplomas was almost half of that for male youths (4.17 and 2.34 %, respectively) in 2011–2012.

Significant disparities still exist between the educational attainments of youths belonging to various socio-religious groups. Over one-fifth of the ST and OBC-Muslim youths were still illiterate at the dawn of the twenty-first century, whereas the proportion of such youths was less than 4 % among the OCs. The proportion of youths with secondary level of education was almost double among the OCs as compared to the STs. Similarly, the percentage of graduates was much higher among the OCs than among the STs, SCs and Muslims. A similar pattern can be observed in the case of youths with technical degree and diploma-level educational attainments. It may thus be concluded that where higher

Table 7 Trends in educational development of youths

Education level	1993–1994	2004–2005	2011–2012
Illiterate	38.55	22.8	13.14
Up to the primary	24.39	23.65	19.19
Middle	19.71	23.25	22.70
High School and Higher Secondary	13.2	23.38	34.55
Diploma and certificate	0.20	1.38	1.78
Graduate and above	3.96	5.54	8.63
Total	100.00	100.00	100.00
Technical degree	0.09	0.28	0.49
Technical diploma not equivalent to a degree	0.81	1.62	2.04
Technical diploma equivalent to a degree	0.99	0.87	0.75
Total-technical degree/diploma	0.89	2.77	3.28

educational attainments are concerned, the OCs are on top, followed by the OBC-Others, Other-Muslims, SCs, OBC-Muslims and lastly, the STs (Figs. 1, 2).

There has been a significant improvement in the educational levels of youths during the period 1993–1994 to 2011–2012, a fact that has been confirmed by earlier research too (IAMR 2011; IHD-ISLE 2014). The proportion of graduates and of those who have passed secondary and senior secondary levels among youths more than doubled during the period. Although the ratio of technical degree-holders among the youth is low, it improved by 5.4 times since 1993–1994. However, such improvement has been uneven across various socio-religious groups. Between 2004–2005 and 2011–2012, the relative gap of percentage share of ‘Graduate and above’ among OCs and ST/SC youths widened with a faster improvement in the case of OCs. The youth belonging to the category of OBC-Others have also achieved considerable improvement in their educational levels, particularly at the secondary level as compared to ST, SC and Muslim youth (Figs. 1, 2).

In brief, despite a few significant improvements in the literacy levels of youths belonging to the ST, SC and OBC-Muslim groups, their transition to a higher level of education has been rather slow as compared to that of OCs and OBC-Others. This has seriously hampered their employability and prospects to move to better occupations.

Likelihood of youths getting into regular employment

Since the incidence of the working poor is the least among regular salaried workers as compared to those working as self-employed or casual wage labour, opportunities for such employment are limited. It is worthwhile to analyse the likelihood of youths acquiring such employment. This has been explained with the help of multinomial logit regression model. As seen in the aggregate employment pattern of India, more than half of the youth are likely to enter to the sphere of self-employment. Thus, the probability of youths getting regular employment has been the lowest, followed by the probability of their getting casual employment ($p > 0.21$ for regular and $p > 0.27$ for casual employment).

Education significantly helps youths in moving into regular employment. By controlling for age, experience, caste, gender and place of residence, the likelihood of youth getting into regular salaried jobs improves with the each level of higher education. With reference to illiterates, the probability of youths getting regular salaried jobs is more than ten times higher in the case of those with diploma/certificate level of education ($p > 65$ as compared to $p > 6$ for illiterates). The next highest likelihood of youths getting into such jobs is for those having graduation and higher level of education. In fact, the probability of youths

Fig. 1 Percentage of youths with education of secondary and above level

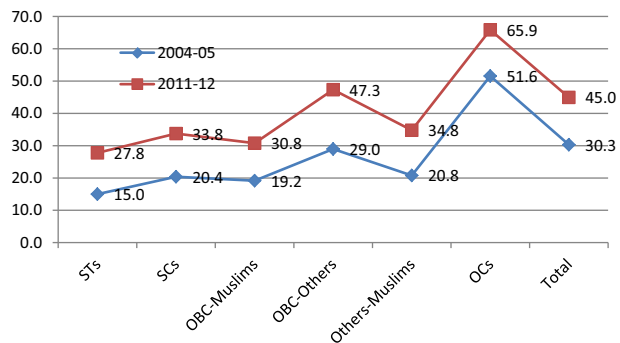
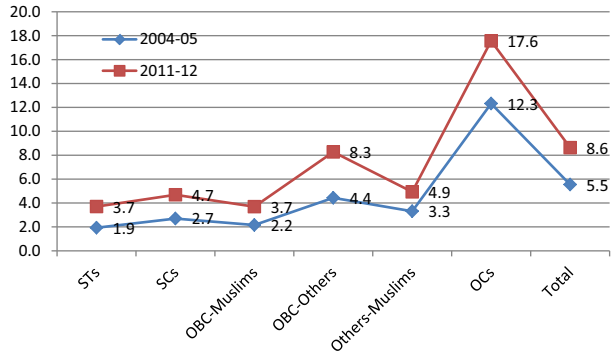


Fig. 2 Percentage of youths with education of graduate and above level



getting into regular jobs has been 7 points higher for diploma/certificate-holders as compared to degree-holders (Table 8).

The likelihood of youths getting regular employment has significant variations among different socio-religious groups. Despite having similar levels of education, experience and place of residence, the likelihood of a ST youth getting a regular salaried job is 3.8 times less than that of an OC youth ($p > 0.34$ for OCs and $p > 0.09$ for ST). The probabilities of SC, OBC and OC-Muslim youths getting such regular salaried jobs are more or less similar, at 0.19–200.20, and are much higher than the probabilities of ST youths getting jobs but far less than those for youths belonging to the OCs group. Their likelihood of remaining in such jobs is about 1.8 times less as compared to that of OCs. The prevalence of such huge differences also shows discrimination in the regular salaried labour market as employers often give preference to OCs while hiring workers in the private sector (Thorat and Newman 2010). Similarly, gender discrimination also persists in the labour market as the probability of females getting regular jobs is around 6 points lower than that of males.

Marginal effects of getting quality employment

In order to measure the differences in the predicted probabilities of youths getting regular employment over other forms of employment with respect to the reference group, we have calculated the average marginal effects from our Logit model (Table 9). Marginal effect of an independent variable say x is the partial derivative of the prediction function f with respect to the independent variable x . The interpretation of the marginal effect for continuous and discrete variables differs. Since independent variables in our case are categorical, marginal effect at mean shows the difference in the predicted probabilities for cases in one category relative to the reference category. The marginal effects for youth and adult workers getting regular jobs are reported in Table 9. The results show that if all youths possess the mean attributes of STs, then the marginal effect of STs in comparison with the reference group (OC) becomes lower by -8.5 points in getting regular employment over other kinds of employment. Such marginal effects are significantly lower by 1.4, 1.8 and 2.5 points for SCs, OBC-Muslims and OBC-Others, respectively, as compared to OCs. The likelihood of females getting regular employment is lower by 3.5 points in comparison with males. Further, youths from urban areas are more likely to get regular employment by 21 points.

In the case of adult workers, the values of the marginal effect are positive and highest for SCs by $+3.6$ points, followed by those for STs ($+0.3$ points) with reference to OCs. The corresponding value is negative in the case of OBC-Muslims and OBC-Others. The differing values of the marginal effects also indicate that SC/ST adult workers have benefited in large

Table 8 Adjusted probabilities of getting various types of employment—multinomial estimates, 2011–2012 *Source:* Calculated from NSSO (2014)

Determinants		Self-employment ^a	Regular employees	Casual labourers
Sector	Rural ^a	0.57	0.10	0.34
	Urban	0.40	0.45***	0.15***
Age ²	15–19 ^a	0.53	0.17	0.30
	20–24	0.51	0.24	0.26
	25–29	0.50	0.24***	0.26***
Sex	Male ^a	0.44	0.24	0.32
	Female	0.59	0.18***	0.23***
Educational level	Illiterate ^a	0.51	0.06	0.43
	Primary	0.48	0.12***	0.39***
	Middle	0.52	0.17***	0.31***
	Higher secondary	0.57	0.24***	0.20***
	Diploma and certificate	0.24	0.65***	0.11***
Socio-religious group	Graduate and above	0.39	0.58***	0.03***
	STs ^a	0.55	0.09	0.36
	SCs	0.37	0.19***	0.44***
	OBC-Muslim	0.53	0.19**	0.28***
	OBC-Others	0.54	0.20***	0.26***
	OC-Muslim	0.59	0.19	0.23***
Total	OCs	0.54	0.34***	0.12**
		0.51	0.21	0.27

Number of observations = 46,685, Pseudo R² = 0.1968

*** Significant at 1 % level of significance; ** significant at 5 % level of significance

^a Reference category

Table 9 Marginal effects of regular employment *Source:* Estimated by using NSSO (2011–2012) unit record EUS data

Variable	Youth	Adult
Socio-religious group		
STs	−0.085	0.003
SCs	−0.014	0.036
OBC-Muslim	−0.018	−0.007
OBC-Others	−0.025	−0.003
Gender		
Female	−0.035	−0.006
Sector		
Urban	0.241	0.197

numbers from reservation in public sector employment till its decline in the early 1990s. The negative sign of the marginal effect for SC/ST youths in comparison with that for OCs also shows how a large share of regular employment opportunities outside the public sector is disproportionately occupied by OCs, which is mainly due to their better endowments, and to some extent, due to the prevalent discrimination in job hiring. Moreover, there is hardly any

provision for reservation in contractual employment which is being created in the public sector in recent years, thereby adversely affecting the employment prospects of SC/ST youths.

Conclusions and policy issues

To conclude, in India, youths face the highest incidence of unemployment, which too has been increasing over the years, particularly among less educated. They continue to be socially and economically vulnerable as about one-third of the employed youths are still working as casual wage labourers. Over half of the youth workers belong to the lowest 40 % income quintile households. Although the opportunities for regular wage employment have increased for them, this has not happened at the desired rate. The prevalence of low quality of employment, particularly among the SCs, STs and Muslims, has created a vicious circle of low-productivity occupations, poor remunerations and the limited ability of the family to invest in education and health care, which dampens the overall prospects for both development and growth. A positive feature of the recent development, however, has been the phenomenon of an increasing proportion of youths studying in educational institutions. However, this transition in favour of education is not uniform across social groups, thereby leading to a widening of the gap among them in terms of their participation in both work and education. The likelihood of ST, SC and OBC-Muslim youths continuing their education is significantly lower than that of their counterparts in the OC group.

Persistence of unemployment among youth may lead to conflicts also (Cramer 2010; Planning Commission 2008). The challenge, therefore, is to create a large number of remunerative employment opportunities with adequate social security for both youths as well as others in the coming years. Various policies and programmes for creating employment opportunities have less than desired impact on ameliorating unemployment situation among youths, particularly women and those belonging to marginalized sections of the Indian society. This calls for measures to increase investment in the labour-intensive sectors, especially in the industrially backward and remote areas, which include measures for easy to do business, infrastructure development, access to credit, specially to micro, small and medium enterprises (MSMEs), safety, good governance, and sound corporate social responsibilities and ethical practices on the part of the industry. Development of MSMEs in niche sectors with special programmes for women and marginalized groups can provide long lasting solution for employment generation for youths. It is thus imperative to intensify policy initiatives to promote enterprise development, particularly among SCs/STs and women, in a big way. The present programmes of the government aimed at employment generation such as access to credit and 'Make in India' must ensure the increased participation of marginalized sections of the society including women.

As most of the new employment on offer is contractual by nature without any social security and low levels of wages, the employers of such labour need to realise that such practices would not help them in long run to improve their growth and competitiveness.

Another major challenge is to accelerate the pace of educational development of youths. Since education significantly enhances the probability of getting better jobs, efforts need to be made to ensure the higher transition of youths to vocational and technical education, and also to higher education. Although the measures towards educational development of SCs/STs such as the grant of scholarships and free uniforms, provision of coaching for competitive examinations, and imposition of reservation in educational institutions have improved their participation in education at various levels, these need to be strengthened further. Similarly, special measures need to be initiated to promote educational development

of female youth irrespective of their social belonging. An alarming aspect is the increasing deficit of quality education and skill training. Public educational institutions at both the school and higher levels need to be strengthened and made accountable for their quality and relevance. Private educational and training institutions also need to be monitored closely for the quality of teaching they offer, and their fee structures. The current measures of skill development under the National Skill Development Mission need to be pegged up in a big way in order to address the skill shortages being faced by the Indian industry. Unlike in the past, today’s youths are more informed and keen to be a part of the IT revolution. They are justifiably asserting their concerns for a decent and dignified life. Politicians and policy-makers must, therefore, come forward in a big way to facilitate the overall development of youths in the country and to ensure decent employment opportunities for them.

Acknowledgments The authors express their thanks to the Conference participants for their useful comments. Special thanks are due to Ajir K. Ghose, Arjan de Haan and Arup Mitra for their valuable comments.

Appendix

Table 10 Gender-wise activity status of youths

Age group	Male			Female			Persons		
	LFPR	Student	Others	LFPR	Student	Others	LFPR	Student	Others
1993–1994									
15–19	54.54	41.90	3.55	30.85	27.17	41.98	43.81	35.23	20.96
20–24	86.51	11.55	1.94	40.71	4.59	54.71	63.34	8.04	28.62
25–29	97.43	1.38	1.19	45.86	0.32	53.82	71.00	0.83	28.16
15–29	77.06	20.58	2.36	38.97	10.95	50.07	58.46	15.88	25.66
30–59	97.77	0.06	2.17	50.70	0.05	49.24	74.81	0.06	25.13
15–59	88.04	9.70	2.26	45.19	5.18	49.63	67.13	7.49	25.38
Total	55.64	23.69	20.67	29	17.18	53.82	42.78	20.54	36.68
2004–2005									
15–19	48.83	47.72	3.45	28.12	38.22	33.66	39.29	43.34	17.37
20–24	85.36	12.95	1.69	38.48	6.85	54.68	61.87	9.89	28.24
25–29	97.44	1.52	1.04	45.79	0.46	53.75	71.48	0.99	27.54
15–29	79.14	19.06	1.80	45.35	13.75	40.89	63.13	16.55	20.32
30–59	97.47	0.03	2.50	52.02	0.05	47.92	74.95	0.04	25.01
15–59	89.75	8.36	1.88	54.44	5.88	39.67	72.77	7.17	20.06
Total	55.9	26.39	17.70	29.43	22.01	48.56	43.00	24.26	32.74
2011–2012									
15–19	30.99	65.99	3.02	14.12	58.47	27.42	23.35	62.58	14.07
20–24	74.33	23.94	1.73	26.20	14.52	59.29	50.54	19.28	30.18
25–29	95.85	2.85	1.30	32.75	1.32	65.93	63.65	2.07	34.29
15–29	63.38	34.50	2.12	24.07	25.66	50.27	44.36	30.22	25.41
30–59	97.79	0.03	2.18	38.84	0.05	61.11	68.50	0.04	31.46
15–59	82.65	15.20	2.15	32.53	10.98	56.48	58.04	13.13	28.84
Total	55.53	29.78	14.69	22.08	25.24	52.67	39.28	27.58	33.15

References

- Aiyar S, Mody A (2011) The demographic dividend: evidence from the Indian States. IMF Working Paper WP/11/38
- Bloom D, Canning D (2004) Global demographic change: dimensions and economic significance. NBER Working Paper 10817. National Bureau of Economic Research, Cambridge
- Chadha GK (2000) Youth unemployment in India: past policy gaps and future strategic options. *Indian J Labour Econ* 43: 591–624
- Chandrasekhar CP, Ghosh J, Roychowdhury A (2006) The demographic dividend and young India's economic future. *Econ Political Weekly* 41:5055–5064
- Cramer, C (2010) Unemployment and participation in violence. World Development Report 2011 Background Paper. School of Oriental and African Studies, 16 November, London
- Dev SM, Venkatanarayana M (2011) Youth employment and unemployment in India, WP-2011–009. Indira Gandhi Institute of Development Research (IGIDR), Mumbai
- Freidrich Ebert Stiftung (FES) (2012) Youth agenda for India: a study. Young Leaders Think Tank, Friedrich-Ebert -Stiftung, New Delhi
- Ghose AK (2013) The Enigma of women in the labour force. *Indian J Labour Econ* 56:635–642
- GoF-RGI (2012) Primary census abstract of India. Registrar General of India, Government of India, New Delhi
- Hirway I (2014) Unpaid work and the economy: linkages and their implications. In: Presidential address at the 56th annual conference of the Indian Society of Labour Economics, Ranchi, December
- IAMR (2011) India human development report. Oxford University Press, New Delhi
- IHD-ISLE (2014) India labour and employment report 2013-workers in the era of globalisation. Institute for Human Development and Indian Society of Labour Economics. Academic Foundation, New Delhi
- India Skills Report (2014) People strong, confederation of indian industry (CII) and wheelbox. Gurgaon, Haryana
- International Labour Organisation (ILO) (2013) Global employment trends for youth: a generation at risk. ILO, Geneva
- Mangain RP (2010) Tackling high level skills shortages in India. Paper prepared for ILO G20 meeting of experts on skills to meet global challenges, (mimeo), March. International Training Centre-ILO, Turin
- Mangain RP (2013) Situating scheduled castes and scheduled tribes in the post-2015 development framework. Oxfam India Working Papers Series, June. Oxfam, New Delhi
- Mangain RP, Tiwari S (2015) Youth in India: challenges of employment and employability. Giri Institute of Development Studies, Working Paper, No. 215
- Mitra A, Verick S (2013) Youth employment and unemployment: an Indian perspective. ILO Asia Pacific Working Paper Series, March, New Delhi
- Munshi K (2011) Strength in numbers: networks as a solution to occupational traps. *Rev Econ Stud* 78:1069–1101
- Neff D, Sen K, Kling V (2012) The puzzling decline in rural women's labour force participation in India: a reexamination. GIGA Research Unit: Institute of Asian Studies, No. 196, May
- NSSO (2014) Employment and unemployment situation in India, 68th round. National Sample Survey Organisation, New Delhi
- Papola TS, Sahu PP (2012) Growth and structure of employment: long-term and post-reform performance and emerging challenges. Occasional Paper Series, 2012/1, ISID. Institute for Studies in Industrial Development, New Delhi
- Planning Commission (2008) Development challenges in extremist-affected areas. Report of Expert Group to the Planning Commission, April
- Planning Commission (2013) Faster, sustainable and more inclusive growth, twelfth five year plan 2012–2017, vol 1. Sage Publications, New Delhi
- Rangarajan C, Kaul PI, Seema (2011) Where is the missing labour force? *Econ Political Weekly* 39:68–72
- Thorat S, Newman K (2010) Blocked by caste: economic discrimination in modern India. Oxford University Press, New Delhi
- World Bank (2013a) Youth employment—a human development agenda for the next decade, by David Robalino, David Margolis, Friederike Rother, David Newhouse and Mattias Lundberg, Social Protection and Labour, Working Paper No. 1308, Washington DC, June
- World Bank (2013b) Inclusion matters—the foundation for shared prosperity, Washington DC