

## LEVEL AND TREND OF YOUTH UNEMPLOYMENT AND POPULATION CHANGE IN INDIA AND SELECTED STATES

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*The majority of youth in developing countries are engaged in the informal sector and have limited chance of earning a decent living and escape from the poverty trap. In terms of employment and livelihood opportunities, the scenario is a frightening one, if we examine the situation against the demographic trend. The demographic trend shows that in developing countries around 700 million young people have entered into the labour force during 1998 to 2008. Eighty per cent of youth are economically active, but they are underemployed. This implies that they do not get sufficient amount of work (or work for a sufficient period of time) to have a decent earning. Further, ILO estimation reveals that the young people between the age of 15 and 24 comprise around 18 per cent of the world's population while they constitute around 41 per cent of the world's unemployed people (ILO, 2001). Global youth unemployment increased from 11.7 per cent in 1993 to an all-time high of 14.4 per cent (88 million) in 2003-04. Further, the youth unemployed rate is double that of the adult population (ILO, 2001). The UN mentioned in the World Youth Report 2005, that the labour force participation rate for young people decreased by almost four percentage points between 1993 and 2003. This scenario is on account of several reasons, viz., increased number of young people attending school, the tendency of students to remain in the education system for a longer period, high overall unemployment rates, and the fact that some young people gave up any hope of finding work and dropped out of the labour market (UN, 2005). Hence, the global employment scenario of youth is alarming.*

### Overview

The literal meaning of 'age structural transition', is a process of changing age structure from one age group to another. But in demography, 'age structural transition' implies the process of changing of the population from young aged population to old aged population (i.e. child to youth and further to old age). It is an integral part of the demographic transition, whose growth paths are determined by the amount of timing, speed of fertility and mortality. The nature of the changing age structure of the population during the demographic transition from high fertility and high mortality to low fertility and low mortality has various socio-economic implications. For instance, at present three billion people live on less than US \$2 income per day (UNDP & HDR, 2001). Majority of youth live in conditions of poverty; they have limited and in some case no access to basic water and

sanitation services, health care facilities, schools and employment opportunities. It is estimated that approximately half of the world's population is under age 25 (UNPF, 2000). United Nation defined youth as 'the time of life when a person is in the age group of 15 to 24' (UN, 2003). In the present world, youth constitutes more than 1.3 billion of total world population, accounting for approximately 17 per cent. Around 84 per cent of the world's youth are residing in developing countries and this figure is projected to increase to 89 per cent by 2025 (UN, 1998). The majorities of youth in developing countries is engaged in the informal sector and has limited chance of earning a decent living and escape from the poverty trap. In terms of employment and livelihood opportunities, the scenario is a frightening one, if we examine the situation against the demographic trend. The demographic trend shows that in developing countries around 700 million young people have

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entered into the labour force during 1998 to 2008. Eighty per cent of youth are economically active, but they are underemployed. This implies that they do not get sufficient amount of work (or work for a sufficient period of time) to have a decent earning. Further, ILO estimation reveals that the young people between the age of 15 and 24 comprise around 18 per cent of the world's population while they constitute around 41 per cent of the world's unemployed people (ILO, 2001). Global youth unemployment increased from 11.7 per cent in 1993 to an all-time high of 14.4 per cent (88 million) in 2003-04. Further, the youth unemployed rate is double that of the adult

population (ILO, 2001). The UN mentioned in the World Youth Report 2005, that the labour force participation rate for young people decreased by almost four percentage points between 1993 and 2003. This scenario is on account of several reasons, viz., increased number of young people attending school, the tendency of students to remain in the education system for a longer period, high overall unemployment rates, and the fact that some young people gave up any hope of finding work and dropped out of the labour market (UN, 2005). Hence, the global employment scenario of youth is alarming.

**Table 1**

Youth population as percent of total population in India and some selected States from 1961 to 2001

India/states	1961	1971	1981	1991	2001	2011	2021
India	16.68	16.52	18.26	18.31	18.47	20.11	17.12
Andhra Pradesh	9.16	16.34	18.99	18.24	19.05	19.58	15.49
Assam	16.70	16.10	NA	18.98	18.48	20.98	17.54
Bihar	15.69	15.60	16.26	16.37	16.28	21.91	19.64
Delhi	19.29	20.49	75.74	20.14	20.61	21.06	17.07
Gujarat	15.59	17.77	20.28	19.63	19.78	19.10	16.58
Himachal Pradesh	17.03	17.13	18.84	19.90	19.90	18.86	15.42
Karnataka	16.50	17.17	18.77	18.88	19.43	19.23	15.64
Kerala	16.96	20.27	22.11	21.07	18.74	15.85	14.12
Madhya Pradesh	16.53	15.16	17.48	17.67	17.99	20.65	18.53
Maharashtra	16.96	16.62	18.12	18.26	19.02	19.23	16.47
Odisha	16.54	15.11	17.88	18.44	18.26	19.69	16.27
Punjab	17.04	18.99	21.04	19.87	20.10	19.38	15.49
Rajasthan	16.71	16.15	17.83	17.76	18.12	21.31	18.80
Tamil Nadu	17.29	17.30	19.08	19.45	19.21	20.65	14.16
Uttar Pradesh	16.31	15.53	16.78	17.50	17.66	21.36	18.54
West Bengal	17.20	16.87	19.84	18.53	18.33	19.89	15.86

**Note:** NA - Data not available,

\* Projected figure (Registrar General of India Projection Report for India and states from 2001-2026)

**Source:** Census of India 1961, 1971, 1981, 1991 and 2001

**Table 2**  
Youth population as percent of total working population in India and  
some selected States from 1961 to 2001

India/states	1961	1971	1981	1991	2001	2011	2021
India	31.29	31.78	33.87	33.02	32.44	32.09	26.69
Andhra Pradesh	19.61	30.74	33.63	31.99	31.63	29.72	23.39
Assam	32.86	33.26	NA	35.10	32.63	33.04	26.92
Bihar	30.15	30.28	31.58	31.53	31.84	37.22	31.04
Delhi	34.85	34.38	62.27	33.50	33.13	30.49	24.87
Gujarat	15.56	35.91	36.70	34.16	32.86	29.60	25.22
Himachal Pradesh	31.21	33.18	35.62	35.53	33.31	29.06	23.43
Karnataka	31.68	33.38	34.93	33.45	32.20	29.39	23.81
Kerala	32.92	37.88	38.44	34.42	29.57	24.39	22.06
Madhya Pradesh	30.62	30.01	33.44	33.04	33.25	34.35	29.41
Maharashtra	31.38	28.58	32.86	32.02	32.21	29.86	25.06
Odisha	29.97	29.29	33.15	32.60	31.27	30.55	24.77
Punjab	34.18	37.09	38.10	34.86	33.86	29.68	23.46
Rajasthan	32.03	32.10	34.68	33.76	34.28	35.54	29.58
Tamil Nadu	30.45	28.09	34.82	31.67	30.14	34.35	21.69
Uttar Pradesh	30.66	30.22	33.18	33.57	34.18	36.90	30.88
West Bengal	31.79	32.67	35.70	32.65	30.81	30.03	23.72

**Note:** NA - Data not available,

\* Projected figure (Registrar General of India Projection Report for India and states from 2001-2026)

**Source:** Census of India 1961,1971,1981,1991 and 2001

India is the second most populous country in the world having a large chunk of working population with significant portion of youth (Table 1, 2). As per the projection of National Commission on Population (NCP), the total population of India would be 1400 million in 2026, out of which the youth population would be 20 per cent i.e., 280 million. The growth rate of youth population is faster as compared to any other age group. Further, youth as a group is a heterogeneous one with wide variation in

educational, health and economic well-being. Youths are generally unskilled and inexperienced, as they enter into the labour market just after completion of their schooling. It is a phase of transition from schooling to working. Hence, they face tough competition in the job market from their senior and experienced counterparts. Unemployment among youth creates a sense of vulnerability, feeling of uselessness and idleness among young people and can heighten the attraction of engaging in

illegal activities. Youth unemployment is an obstacle for economic well being and poverty reduction. Unemployment among youth creates a number of socio-economic problems. The problem of youth unemployment has been recognised as an important aspect of 'National Unemployment Problem' (Visaria, 1998). The policy document recognizes that growth rate of labour force has been higher than the growth rate of population and the growth of employment has not been in proportion to the growth of Gross Domestic Product. In India, the growth rate of labour force is 2.5 per cent per annum whereas the growth rate of employment is 2.3 per cent per annum. The unemployed youth constitutes 31 per cent of total unemployment in 1987-88, which increased to 45 per cent in 1993-94 and further to a high of 62 per cent in 2004 (as per usual status of NSSO).

### Objectives

Attempt has been made in this write-up to examine the following aspects:

1. To understand the level and trend of unemployment among youth in India and selected states.
2. To comprehend the relation of youth unemployment with population structure and economic development in India.

### Data and Methodology

To examine the above stated objectives we have used the data collected from various secondary sources, viz., Various Census Reports and National Sample Survey, 55th and 60th round on Employment and Unemployment and the Report of National Commission of Population projection on India and States from 2001 to 2026 by the Registrar General of India.

The National Sample Survey Organisation (NSSO) and the Census usually collects information on the employment and

unemployment in India. However, the method and procedure adopted by these surveys are different. The procedure adopted for collecting information on employment and unemployment by the NSSO is scientific and systematic as compared to the Census. The concepts, definitions and procedures followed in NSSO survey are primarily based on the recommendations of the 'Expert Committee on Unemployment Estimates' (Dantawala Committee, Planning Commission of India, 1970). NSSO has been carrying out all-India household surveys on employment and unemployment with a large sample usually once in five years. Till date seven such surveys were conducted by NSSO. The latest one is the 61st round (July 2004 June 2005). The previous six quinquennial surveys were conducted during the 27th (October 1972 September 1973), the 32nd (July 1977 June 1978), the 38th (January December 1983), 43rd (July 1987 June 1988), 50th (July 1993 June 1994) and the 55th round (July 1999 June 2000). Apart from the quinquennial surveys on employment and unemployment, NSSO has been regularly collecting information on certain key items on employment and unemployment from a limited household in each round since its 45th round (July 1989 June 1990), known as annual series, through the schedule on Household Consumer Expenditure (Schedule 1.0). However, for the first time, NSSO in its 60th round, followed two separate enquiries on Household consumer Expenditure and Employment-Unemployment, and as a result, a separate schedule on employment and unemployment (Schedule 10) was canvassed. The concepts, definitions and procedures of 60th round were quite similar to the quinquennial rounds. The novelty of NSSO survey is that the definition of the unemployment adopted not only permits to compare with past data but also comparable with the other countries of the world. In all these rounds, the persons are classified into three broad activity statuses namely: i) working or employed ii) unemployed and iii) not in the labour force.

The basic approach in all these seven quinquennial surveys has been the collection of data to generate the estimates of employment and unemployment based on reference period. Employment and unemployment were measured with three different approaches, viz. usual status with a reference period of one year, current weekly status with one week reference period and current daily status based on the daily activity pursued during each day of the reference week. Among these three basic approaches, the usual status reflects the long term spell of unemployment. On the other hand, the current weekly status and current daily status reflect the seasonal variation and usually give higher estimates than usual status.

In the present analysis we have taken 55th and 60th round of NSS data pertaining to Schedule 10. The salient feature of the 55th round is that the rotation sampling scheme has been adopted for the first time in the NSS (central sample only) for the purpose of collection of employment-unemployment data and in the 60th round stratified multi-stage design has been adopted for the data collection. In 55th round, Schedule 10 is given in 16 Blocks whereas in 60th round it has 11 blocks. Blocks 0, 1 and 2 are used to record identification of sample households and particulars of field operations. Block 3 is used for recording the household characteristics like household size, religion, social group, land possessed and cultivated, monthly per capita consumer expenditure, etc., and Block 3.1 for recording particulars of indebtedness of rural labour households. Block 4 is used for recording the demographic particulars of all the household members. In Block 5.1, particulars of principal usual activity of all the household members and the details of the enterprises for the usual status workers in the non-agriculture sector will be recorded. These blocks are used in the present analysis. The unemployment as defined in the principal usual status is used. The variables used in the analysis are age, place of residence,

general education, technical education, marital status, caste, religion, type of house hold and MPCE.

From the raw data of 55th and 60th rounds of NSSO and various Census data following estimations have been made:

1. Rate of unemployment in India by age and place of residence
2. Rate of youth unemployment in India by background characteristics
3. Rate of youth unemployment by place of residence across the states and at all India level
4. Youth population as a per cent of total population in India and states
5. Youth population as a per cent of total working population in India and in selected states

In addition to the above computations, attempt has been made to analyse the level and differential of unemployment among youth with respect to socio-economic and demographic characteristics with the help of a simple bi-variate analysis. Further a Multivariate Logistic Regression Model has been used to examine the statistical significance in differentials in unemployment among youth at all India level by socio, economic and demographic variables. An attempt has also been made to fit a Regression Model with unemployment among youth (Yunempl) as dependent variable, and per-capita net domestic product (pcsdp), percentage of population living below poverty line (bpl), percentage of urbanization (urb), percentage of road length (rl), growth of population 'tfr', percentage of youth population (ypl) and percentage of working population (wpl) as explanatory variables.

The model we posit is as follows:

$$Y_{unempl\ k} = a_0 + a_1 p_{csdp\ k} + a_2 bpl\ k + a_3 urb\ k + a_4 rl\ k + a_5 tfr\ k + a_6 ypl\ k + a_7 wpl\ k + e\ k$$

Where,  $e\ k$  is the error term

### Population, Working Population and Youth

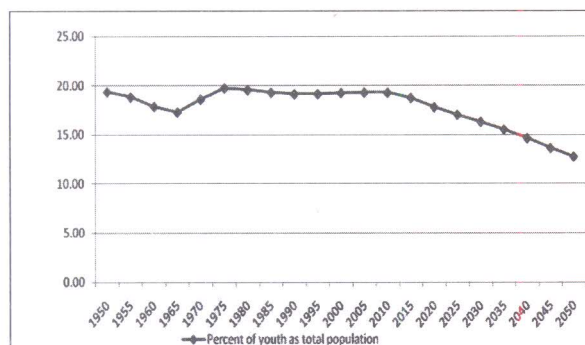
Before comprehending the situation of level and trend of unemployment among youth, one should have a clear idea about the pattern and trend of youth population, such as youth as a percent of total population and youth as a percent of working population at all India level and across the states. Appendix Table 1 records the percentage of youth in total population across the states over the period 1961 to 2021. It has been verified from the table that at the all India level the percentage of youth population is increasing up to 2011 and thereafter it declines gradually. It is anticipated that the percentage would be 20 per cent in 2011. This means youth would constitute one fifth of the total population in 2011. However, as forecasted by Projection Report of Registrar General of India the rate would slide down to 17 per cent in 2021. Similar trend has observed in the state level too. Most of the states are close to the national figure.

Table 2 depicts data on percentage of youth population to working population (in the age

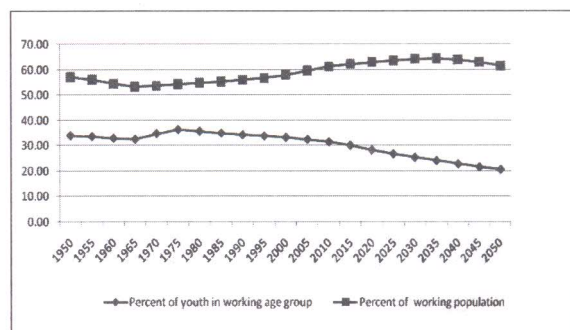
group 15-59). At the all India level, this was 33.87 per cent in 1981 which declined to 32.44 per cent in 2001. This percentage is projected to decline to 32.09 in 2011 and further to a low of 26.69 in 2021. It is expected that in 2011 the percentage of youth among working population in northern states would be higher than the national average, viz., Uttar Pradesh (36.90 per cent), Bihar (37.22 per cent), Madhya Pradesh (34.35 per cent) and Rajasthan (35.54 per cent). However, in southern states (except Tamil Nadu) the ratio would be lower than the national figure, i.e., Kerala (24.39 per cent), Karnataka (29.39 per cent) and Andhra Pradesh (29.72 per cent). Population Projection Report predicts that in 2021, youth as a percentage of working population would decline in all the southern states including Tamil Nadu and would be well below the national average. On the contrary, the northern states would be above the all India figure, albeit with a decline in percentage in each state during the decade 2011-2021. This clearly indicates that there would be an early 'age structure transition' in the southern states as compared to northern states. The population would be older and ageing in southern states whereas younger in northern states. This conclusion is in line with the past study by Professor Mari Bhatt.

Taking UN projected figure of population in India from 1950 to 2050, Graph 1 has been plotted in the paper. The graph clearly indicates

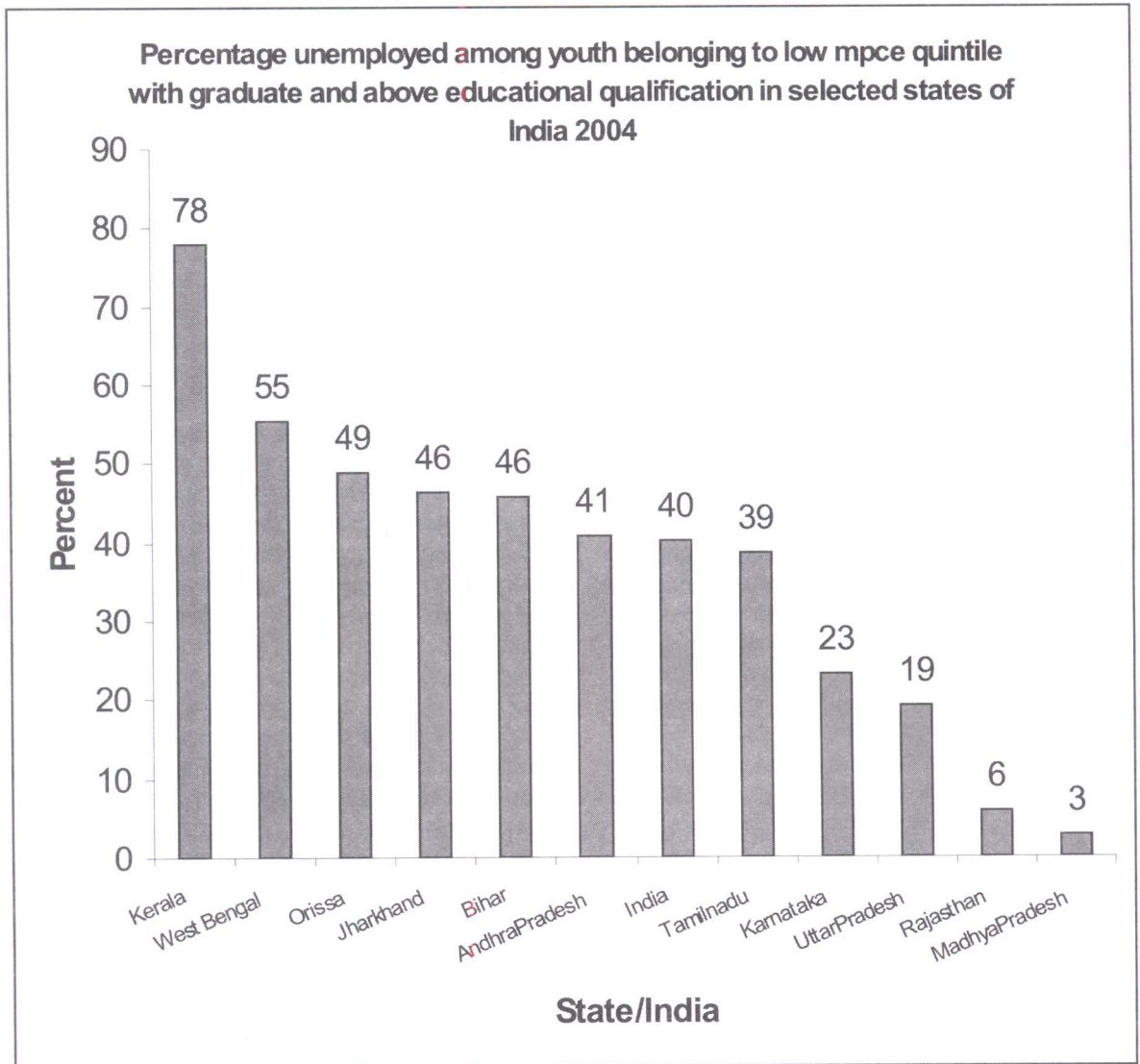
**Graph 1:** Percent of Youth as total population in India from 1950 to 2050



**Graph 2:** Percent of youth in working population and percent of working age population to total population from 1950 to 2050 in India



Graph 3



that the youth as a ratio of total population has already declined. It was in its peak in the year 2005. Thereafter the curve declines gradually and would be less than 15 per cent 2030 onwards. Graph 2 portrays the relationship between working population and youth in the working population. This graph reveals that the gap between the cohorts (youth and working) widens

as the time passes. This trend is unabated since 1975 and would be highest in 2040.

#### Youth Unemployment: Empirical Evidence

The level of unemployment in India on the basis of age group and place of residence is detailed in Table 3. The unemployment rate was

**Table 3**  
Unemployment in India by Age and Place of Residence

Age Group	55th round (1999-2000)			60th round (2004)		
	Rural	Urban	Total	Rural	Urban	Total
0-14	1.25	4.93	1.73	1.9	6.08	2.56
15-19	4.59	14.18	6.37	7.27	13.09	8.49
20-24	4.6	13.98	6.77	6.72	14.37	8.69
<b>15-24</b>	<b>4.6</b>	<b>14.06</b>	<b>6.6</b>	<b>6.95</b>	<b>13.93</b>	<b>8.61</b>
25-29	2.21	7.4	3.42	3.44	9.06	4.82
30-34	0.64	2.45	1.06	1.5	3.62	2.05
35-39	0.21	1.23	0.45	0.55	1.57	0.80
40-44	0.08	0.64	0.22	0.18	0.93	0.37
45-49	0.02	0.57	0.15	0.31	0.67	0.40
50-54	0.02	0.44	0.12	0.27	0.9	0.42
55-59	0.04	0.23	0.08	0.24	0.9	0.38
60+	0.1	0.07	0.09	0.03	0.25	0.06
<b>Total</b>	<b>1.47</b>	<b>4.74</b>	<b>2.2</b>	<b>2.31</b>	<b>5.33</b>	<b>3.03</b>

**Source:** NSSO 55th & 60th Round, MoSPI, Gol

estimated at 2.2 per cent for the country in 1999-2000 which increased to 3.03 per cent in 2004 under principal usual status. The unemployment is highest among the persons in the age group of 20-24 followed by the age group 15-19 years. The unemployment among youth (15-24 years) was estimated at 6.6 per cent in 1999-2000 which increased to 8.61 per cent in the year 2004. This shows that unemployment among youth increased to the extent of 33 per cent within a span of five years. It has been observed that the rate of unemployment in India is high in the urban areas (4.74 and 5.33 per cent) as compared to the rural areas (1.47 and 2.31 per cent) irrespective of age and period of analysis. However, the intensity is more pronounced among the youth (14.06 and 13.93 per cent in urban areas as against 4.6 and 6.95 per cent in rural areas).

Table 4 depicts unemployment among youth in two periods of time with respect to various

background characteristics such as types of household, MPCE, educational status, marital status, religion and caste. The table shows that youth unemployment is mostly found in the type of the household categorized as 'others' in both the rounds of National Sample Surveys. By analyzing monthly per-capita consumption expenditure (MPCE) data, it is clear that unemployment among youth increases with the increase of MPCE level, i.e., unemployment is high in the richer quintile groups as compared to their poorer counterparts. Further data reveals that there is a positive relationship between the rate of unemployment and the level of educational standard of youths. This implies that the problem of unemployment is severe among the educated youth which accentuates with the passage of time. The possible explanation for this phenomenon may be that highly educated youth prefer white collar jobs in the organised sectors rather than to be engaged in low-productive, low earning jobs in the informal sector.



**Table 4**  
Youth Unemployment in India by Background Characteristics

Type of Household	55th round (1999-2000)			60th round (2004)		
	Rural	Urban	Total	Rural	Urban	Total
Self-employed in non-agriculture/ Self-employed	6.5	8.77	7.58	7.71	9.54	8.57
Agricultural labour/ regular wage/salary earning	3.15	21.63	7.13	4.84	17.12	8.65
Other labour/ casual labour	8.06	7.47	7.82	6.76	10.41	7.79
Self employed in agriculture	2.85	*N.A	2.85	5.38	*NA	5.38
Others	6.1	15.91	8.04	24.72	56.81	28.69
<b>Monthly Per-capita consumption expenditure (MPCE)</b>						
Poorest quintile	3.8	7.86	4.13	4.78	5.22	4.84
2nd Poorest quintile	3.72	10.11	4.52	7.18	12.36	8.07
Middle quintile	4.53	13.57	6.42	7.77	14.46	9.5
2nd Richest quintile	7.17	12.84	9.15	8.71	17.18	11.8
Richest quintile	9.57	13.95	11.98	11.53	18.76	14.93
<b>Educational status</b>						
Below primary	0.85	4.05	1.2	1.51	1.01	1.45
Primary	3.92	10.87	5.44	5.25	9.16	6.21
Middle	12.61	20.22	15.03	14.83	19.67	16.24
Secondary	8.02	36.5	24.53	23.01	26.62	24.3
Higher secondary	28.93	36.69	33.8	44.03	25.13	34.46
Graduate & above	35.23	33.79	34.43	44.33	42.09	43.13
<b>Marital Status</b>						
Never married	7.6	12.4	10.2	9.59	15.36	11.26
Ever married	2.0	6.1	2.1	2.41	7.5	3.0
<b>Religion</b>						
Hindu	4.33	14.61	6.26	6.63	15.0	8.47
Muslim	6.3	12.02	8.37	7.58	8.74	8.04
Christian	12.98	21.19	15.07	14.56	22.58	16.6
Others	4.27	13.61	6.25	9.64	10.56	9.88
<b>Caste</b>						
ST	2.33	12.65	3.08	3.7	15.09	4.34
SC	4.59	13.53	6.09	7.33	15.49	8.91
OBC	4.28	11.45	5.73	6.08	11.39	7.26
General	6.71	16.97	9.85	10.33	15.51	12.26
<b>Total</b>	<b>4.6</b>	<b>14.06</b>	<b>6.6</b>	<b>6.95</b>	<b>13.93</b>	<b>8.61</b>

Source: NSSO 55th & 60th Round, MoSPI, GoI

\*NA- Data Not available

Earlier Prof. Chandrasekhar had cited the reason for this as 'hard to get job appropriate to their skills' (Chandrasekhar et al. 2006). By marital status of the youth it is observed that unemployment is high among 'never married' people as against the ever married ones. So far as religious characteristic is concerned, unemployment is high among Christian youth. General caste youth tops the list of unemployment followed by Schedule Caste youth. Two broad conclusions may be drawn from the table: 1) the problem of unemployment among youth accentuates over the time irrespective of background characteristics 2) the intensity of unemployment is severe in urban centers than the rural areas (only exception is the

'above graduate' in 55th and 'above higher secondary' in 60th round).

The results of the ordinary Least Squares Regression Model is presented in Table 5. The analysis of the result shows that the infrastructure variable (represented by road length) and the urbanization factor are statistically significant at 5 per cent level of significance with the expected sign. These variables have positive impact to reduce the problem of unemployment among youths. Hence, we argue that effort should be directed to create more infrastructure facilities for generation of sufficient employment avenues for the youths.

**Table 5**  
Result of Ordinary Least Squares Regression Analysis

Independent variables	Youth unemployment 55th round Un standardized coefficient	t-values	Youth unemployment 60th round Un standardized coefficient	t-values
Per-capita Net Domestic Product	0.607	0.41	-0.864	-1.122
Percent of BPL	0.432	0.66	0.106	-0.56
Percent of urbanisation	-1.23**	-2.18	-0.070**	3.157
Percent of road length	-1.15**	2.108	-1.47**	-3.64
TFR	0.97	-1.16	.061	-1.374
Percent of youth population	1.11	0.74	0.904	0.048
Percent of working Population	-1.10	0.78	-0.454	0.619
Constant	0.023	0.53	-.495	-0.478
R2	0.44		0.36	

\*\* Significant at 5 per cent level significance

**Source:** Calculated by the Author

**Table 6**  
Result of Logistic Regression

Variables	Categories	Odds ratio	
		55th round	60th round
Sex	Male (R)	1	1
	Female	1.55***	1.68***
Place of residence	Rural (R)	1	1
	Urban	2.10***	1.44***
Age	age(15-19) (R)	1	1
	age(20-24)	1.30***	0.76
Marital status	Never married (R)	1	1
	Currently married	0.39**	0.34***
Caste	Schedule Tribe (R)	1	1
	Schedule Caste	1.58***	1.37***
	OBC	1.28***	0.93
	Others	1.68***	1.14
MPCE	MPCE(poorest quintile) (R)	1	1
	Second Poorest quintile	0.92*	1.35***
	Middle quintile	0.93	1.42***
	Fourth quintile	0.27	1.48***
	Richest quintile	0.69***	1.42***
General Education	Not literate (R)	1	1
	Up to primary	3.37***	3.64***
	middle and above	13.13***	13.29***
Religion	Hindu (R)	1	1
	Muslim	1.31***	1.69***
	Christian	1.60***	1.98*
	Others	1.01	1.09**
House Hold Type	Self-employed in non-agriculture/Self-employed (R)		11
	Agricultural labour/regular wage/salary earning		2.741.25***
	Other labour/ casual labour	3.5*	1.41***
	Self employed in agriculture	3.52*	0.93
	Others	2.63	4.07***

**Note:** Dependent variable unemployment among youth  
(R)-Reference Category, \*\*\* p < 0.01, \*\* P < 0.05, \* P < 0.10

**Source:** Calculated by the Author

**Table 7**  
Percent of Unemployment among Youth in India and States by Place of Residence

States	55th round (1999-2000)			60th round (2004)		
	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	2.54	12.19	4.44	3.06	15.64	5.80
Arunachal Pradesh	1.97	21.57	2.55	5.39	13.03	2.31
Assam	10.95	27.38	12.17	13.45	17.93	12.62
Bihar	6.03	22.9	7.71	7.63	23.28	9.03
Goa	31.83	47.47	40.7	13.56	43.78	23.61
Gujarat	1.17	6.55	2.37	2.28	10.64	2.84
Haryana	1.94	8.96	3.85	10.13	25.72	13.65
Himachal Pradesh	3.23	17.26	3.83	13.00	23.00	14.09
Jammu & Kashmir	4.19	21.94	6.24	12.98	17.62	14.00
Karnataka	2.23	9.83	3.8	4.08	8.62	5.23
Kerala	27.42	32.34	28.55	34.02	23.15	31.68
Madhya Pradesh	1.37	10.36	2.79	1.68	7.97	5.28
Maharashtra	5.25	17.94	9.55	5.93	15.24	9.39
Manipur	5.55	14.9	6.76	6.42	18.62	17.82
Meghalaya	1.34	12.56	2.32	1.61	12.17	47.14
Mizoram	0.54	6.91	1.75	1.74	1.35	8.47
Nagaland	9.53	27.71	13.28	18.08	16.59	6.14
Odisha	6.74	21.7	8.76	16.65	21.15	12.08
Punjab	6.12	7.56	6.52	16.00	13.00	14.88
Rajasthan	1	7.91	2.1	3.17	7.99	4.06
Sikkim	6.38	21.04	7.9	4.4	0	3.90
Tamil Nadu	6.23	13.9	8.5	8.43	6.38	13.61
Tripura	4.2	21.01	5.66	46.84	48.56	1.62
Uttar Pradesh	2.22	9.1	3.65	3.34	7.00	4.25
West Bengal	7.71	23.95	10.44	10.93	26.28	13.71
Chandigarh	1.62	17.49	12.57	22	5.07	7.03
Delhi	9.84	11.24	10.86	4.9	9.05	8.73
Jharkhand	NA	NA	NA	9.64	31.15	14.74
Chhattisgarh	NA	NA	NA	3.4	18.15	17.05
Uttaranchal	NA	NA	NA	11.4	10.81	11.30
<b>India</b>	<b>4.6</b>	<b>14.06</b>	<b>6.6</b>	<b>6.95</b>	<b>13.93</b>	<b>8.61</b>

Source: NSSO 55th & 60th Round, MoSPI, GoI

NA: Data Not available.

The Multivariate Logistic Regression is used to examine the relationship between the dichotomous nature of response variable and categorical influences of explanatory variables. 'Unemployment among youth' is used as dependent variable with '0' and '1' for youth being 'employed' and 'unemployed' respectively. The odds-ratios of predicted variables are presented in Table 6. The odds ratios of unemployment among youth for female are 1.55 and 1.68 in the 55th and 60th round respectively as against male, implying a higher (than the reference category male) tendency to be unemployed. This means female are more vulnerable, i.e., 55 per cent and 68 per cent more prone to be unemployed than their male counterparts. Both the results are statistically significant (Odds-Ratio 1.55,  $p < 0.01$  in the 55th round and 1.68,  $p < 0.01$  in 60th round). Similar interpretations can be made for other socio-economic variables. The Odds-Ratios for Urban, Married, Scheduled Caste, Richer Quintile, Educated, Muslim and Christian youths are significant at 1 per cent level in both the rounds of NSSO survey.

The state wise variation of the unemployment among youth is shown in Table 7. This table shows that the unemployment among youth in India and major states. The state wise figure on youth unemployment shows that among major states of Indian Union, Kerala tops the list and Gujarat is the bottom under both the rounds of survey. In the 55th round Kerala is followed by Assam and West Bengal, but in 60th round the situation is different where Kerala is followed by Chhatisgarh and Punjab. However, in states like Uttar Pradesh and Rajasthan, the rate of unemployment is less than 5 percentage point in both the rounds. Other states having low rate of unemployment are Andhra Pradesh, Karnataka and Madhya Pradesh. The most disastrous situation is observed in Haryana where the rate of unemployment has increased from 3.85 to 13.65 per cent within a period of five years. The trend of unemployment indicates that the youth are in search of employment but the ability to obtain the same is very distant.

## Conclusions

In conclusion, the study reveals that unemployment among youth has increased over time. The bi-variate analysis brings out the fact that educated youth of richer quintile residing in urban centers are more prone to the problem of unemployment. Other social characteristics that are associated with unemployment are General Caste, Unmarried Category and Christian Community. The multivariate logistic regression analysis performed on the NSS data also corroborates this view. The ordinary least squares regression model draws the conclusion that infrastructure and urbanization have greater potential to reduce the scourge of unemployment among youth. Mere economic growth by raising per capita net state domestic product is not enough to solve this problem. Hence, in order to achieve inclusive growth, i.e., the benefit of growth be equitably distributed across the population, sufficient job opportunities should be generated for the youths by emphasizing infrastructure development and with the creation of industrial hubs in urban centers.

The population of India is anticipated to be around 1.4 billion in 2026. The present trend of 'age structural transition' postulates the swelling of youth labour force in the working population in future. Consequently the country will enter in to the 'demographic bonus' phase by that time (Bhatt, 2004). Hence, an appropriate policy should be framed to realize the benefits of the demographic gift. This demographic gift should be used as a window of opportunity for economic development of the country. However, by looking into the levels of youth unemployment in India and across states over the period 1999-2004, one can very well imagine that it is a big challenge for the policy makers and administrators to translate the demographic dividends into reality. In fact, it is a Herculean task to solve the problem of unemployment. Unless effort is gear up to create additional demand for the booming young labour force, the associated social evils would jeopardize all the opportunities of hope and aspirations.

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## Notes:

55th round is a quinquennial survey but 60th round is an annual survey.

Percentage of road length is used as a proxy for the infrastructure variable.

Total Fertility Rate (TFR) is used in the analysis as a proxy for population growth

In the present analysis we consider those states whose population figure in 2001 census crossed the one crore mark as major states and the list includes states, viz., Uttar Pradesh, Maharashtra, Bihar, West Bengal, Andhra Pradesh, Tamil Nadu, Madhya Pradesh, Rajasthan, Karnataka, Gujarat, Odisha, Kerala, Jharkhand, Assam, Punjab, Haryana, Chhatisgarh, and Jammu & Kashmir.

'The growth rate of working age population exceeds the growth rate of population' is considered as 'demographic gift'.