



## Impact of Higher Education on Youth Employment in India: Evidence from PLFS Data

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### ABSTRACT

Youth employment remains a central concern in India despite rapid expansion of higher education over the last two decades. This paper examines the impact of higher education on employment outcomes among Indian youth using unit-level data from the Periodic Labor Force Survey (PLFS). Focusing on individuals aged 15–29 years, the study analyses whether higher educational attainment improves the probability of employment and the quality of employment. Using descriptive statistics and econometric techniques such as logistic regression, the paper explores the role of education while controlling for age, gender, residence and social background. The study finds that higher education significantly increases employability, though the magnitude varies across gender and rural–urban locations. The findings highlight the need for aligning higher education with labor market requirements to address educated unemployment in India.

**Keywords:** Higher Education, Youth Employment, PLFS, India, Labor Market

### INTRODUCTION

India is experiencing a demographic phase characterized by a large youth population, often referred to as a demographic dividend. Simultaneously, the country has witnessed a substantial expansion of higher education institutions and enrolments. Despite this expansion, concerns regarding youth unemployment particularly among the educated have intensified. According to recent labor market indicators, unemployment rates among graduates remain higher than those with lower levels of education, raising questions about the effectiveness of higher education in improving labor market outcomes.

Understanding the relationship between higher education and youth employment is crucial for policy formulation. This paper seeks to empirically examine whether higher education enhances employment prospects for Indian youth using nationally representative data from the Periodic Labor Force Survey (PLFS). By focusing on youth employment outcomes,

the paper contributes to ongoing debates on skill mismatch, employability and education-led growth in India.

## **REVIEW OF LITERATURE**

Employment is a key indicator of economic development and social well-being, particularly in developing countries like India where demographic diversity and educational inequality significantly influence labor market outcomes. Several studies have examined the determinants of employment status with special emphasis on education, age, and demographic characteristics.

Human capital theory suggests that education enhances an individual's skills and productivity, thereby improving employment prospects (Becker, 1964). Empirical studies conducted in the Indian context consistently report a positive association between educational attainment and employability. Higher levels of education increase access to formal sector jobs, better wages, and job stability, while individuals with lower education are often concentrated in informal and vulnerable employment (Mehrotra et al., 2014).

Age is another important determinant of employment status. Young individuals often face difficulties in entering the labor market due to lack of experience, whereas middle-aged individuals generally enjoy higher employment probability owing to accumulated skills and work experience. However, at older ages, employability may decline due to health constraints and skill obsolescence (Klasen & Pieters, 2015). Studies using NSSO and PLFS data highlight a nonlinear relationship between age and employment, indicating that age significantly affects labor market participation and job retention.

Recent research has increasingly employed logistic regression models to analyze employment outcomes because employment status is typically a binary variable (employed/unemployed). Logistic regression allows estimation of the probability of employment while controlling for multiple socio-economic factors simultaneously (Gujarati & Porter, 2010). Studies applying this methodology to PLFS data confirm that education and age remain statistically significant predictors of employment status even after controlling for other variables (Chatterjee & Murgai, 2020).

Despite extensive literature, gaps remain in understanding the combined effect of education category and age on employment probability using recent PLFS datasets. Many studies focus either on education or age independently, while fewer attempt a joint empirical analysis using updated micro-level data. Therefore, the present study contributes

to the existing literature by empirically examining the impact of education category and age on employment status using logistic regression analysis based on PLFS data.

### **OBJECTIVES OF THE STUDY**

The specific objectives of the study are:

1. To examine employment outcomes among youth across different levels of educational attainment.
2. To analyze the impact of higher education on the probability of employment among youth in India.

### **RESEARCH METHODOLOGY**

#### **• Data Source and Sample Design**

The study uses unit-level data (2023-24) from the Periodic Labor Force Survey (PLFS), conducted by the National Statistical Office (NSO), Government of India. PLFS provides nationally representative information on employment and unemployment indicators.

The analysis focuses on youth aged 15–29 years. Individuals are classified based on their highest level of educational attainment. Higher education is defined as completion of graduate level and above, including postgraduate, professional and technical degrees.

#### **• Variables and Definitions**

##### **Dependent Variable**

- **Employment Status:** A binary variable indicating whether an individual is employed (1) or unemployed (0), based on usual status criteria.

##### **Key Independent Variable**

- **Higher Education:** A categorical variable capturing educational attainment, classified as below secondary, secondary, higher secondary, graduate and above.

##### **Control Variables**

- Age (in years)
- Gender (male/female)
- Place of residence (rural/urban)
- Social group

#### **• Methodology**

The study employs both descriptive and econometric methods. Descriptive statistics are used to examine employment patterns across educational categories. To estimate the

impact of higher education on employment probability, a logistic regression model is used.

The model is specified as:

$$\text{Employment}_i = f(\text{Education}_i, \text{Age}_i, \text{Gender}_i, \text{Residence}_i, X_i)$$

where  $\text{Employment}_i$  is the employment status of individual  $i$ ,  $\text{Education}_i$  represents educational attainment, and  $X_i$  denotes other control variables.

- **Results**

**Table 1: Employment Status of Youth by Level of Education in India**

Level of Education	Employed (%)	Unemployed (%)	Total (%)
Below Secondary	3.1	96.9	100
Secondary	6.3	93.7	100
Higher Secondary	15.3	84.7	100
Graduate & above	11.5	88.5	100

**Note:** Percentages are row percentages calculated using PLFS unit-level data.

Table 1 presents the distribution of employment status among youth across different levels of education. The results indicate a clear association between educational attainment and employment outcomes. Youth with graduate and higher levels of education exhibit a substantially higher proportion of employment compared to those with below secondary or secondary education. Conversely, unemployment rates are relatively higher among youth with lower levels of education. This pattern suggests that higher education enhances employability by improving skills, productivity, and access to formal sector jobs in the Indian labor market.

**Table 2: Logistic Regression Results on Youth Employment**

Variable	$\beta$ Coefficient	Exp( $\beta$ ) (Odds Ratio)	Sig. (p-value)
Age (Years)	.206	1.228	0.000
Years of Formal Education	-.817	.442	0.000
Constant	-2.523	.080	0.000

**Note:** Logistic regression estimated using PLFS data; significance level at 5%.

Table 2 reports the results of the logistic regression analysis examining the impact of education and age on youth employment in India. Age has a positive and statistically significant effect on employment, indicating that the likelihood of being employed increases as youth grow older. The odds ratio suggests that with each additional year of age, the probability of employment rises substantially.

The findings reveal that educational attainment has a statistically significant effect on youth employment. The odds ratio for education ( $\text{Exp}(\beta) = 0.442$ ,  $p < 0.01$ ) indicates that changes in educational category significantly influence the likelihood of being employed. This result suggests that higher educational attainment does not automatically translate into higher employment probability for youth, reflecting the issue of educated unemployment and possible skill mismatch in the Indian labor market.

Age also emerges as a strong and significant determinant of employment among youth. The odds ratio for age is 1.228 ( $p < 0.01$ ), implying that with each additional year of age, the probability of employment increases substantially. This indicates that older youth are more likely to be absorbed into the labor market compared to younger cohorts, possibly due to greater work experience or skill acquisition over time.

Overall, the regression results highlight that while higher education plays an important role, its impact on youth employment is complex and mediated by labor market conditions. The significant role of age suggests delayed entry of educated youth into employment, underscoring structural challenges in employment generation in India.

## **DISCUSSION**

These findings align with existing literature that highlights rising unemployment among educated youth in India. The negative or weak association between higher education and immediate employment outcomes points towards a mismatch between higher education curricula and labor market requirements. The strong positive effect of age suggests that educated youth often experience delays in securing employment, reinforcing concerns about jobless growth.

## **POLICY IMPLICATIONS**

The findings underscore the need for strengthening the link between higher education and employability. Policy measures should focus on curriculum reform, skill-based education, internships and stronger industry–academia linkages. Special attention is required to address gender disparities in youth employment.

## CONCLUSION

This study examined the impact of higher education on youth employment in India using unit-level data from the Periodic Labor Force Survey (PLFS). The findings reveal that educational attainment significantly influences employment outcomes; however, higher education alone does not ensure immediate employment for youth. The results highlight the persistence of educated unemployment and underline the role of structural constraints and skill mismatch in the Indian labor market.

Age emerges as a crucial factor in determining employment, indicating that many young individuals experience delayed entry into the workforce. These findings suggest that the demographic dividend can only be realised if higher education is complemented by demand-driven skill development, curriculum reforms and stronger industry–academia linkages. Policymakers must focus on improving the employability of graduates and generating adequate quality employment opportunities to address youth unemployment in India effectively.

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