



DETERMINANTS OF EDUCATION ATTAINMENT IN INDIA: AN ORDERED LOGIT ESTIMATION OF EDUCATIONAL TRANSITION

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Abstract: Human capital is the engine of both personal and national growth and hence expenditure on education is an investment. Educational choice, performance and attainment of individuals are influenced by various socio-economic, demographic and environmental factors. This paper analyses the determinants of education attainment in India using the 2012 NSSO data and applying the ordered logit model. The logit estimates show that age, household income, and household size increase the probability of completing the educational levels. Male children have a higher probability of completing the highest level of education relative to female children. Hindu and Muslim individuals have a lower probability of completing the highest education while the log odds of completing a higher level of education are higher for Christians. The probability of completing the education level is relatively higher for scheduled castes compared to scheduled tribes. Salary earners have a slightly higher probability of completing the highest education level than the rural and agriculture dependents. The probability of educational transition is higher at the primary education level than the completion of college-level education. Hindus and urban children have a higher mean probability of completion of each level of education compared to Muslims and rural children.

Keywords: Educational attainment, educational transition, socioeconomic determinants, ordered logit estimation

INTRODUCTION

The human capital embodied in human beings, specifically education, is valued as one of the significant catalysts to the economic growth and social

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development of a country (Bhaumik and Chakrabarty, 2010). It is widely accepted education and economic growth are positively related and that education helps to improve the living standards of people improving the occupation and earnings of individuals. Educating more people in the country means a positive change in society as well. The new theory of economic growth postulates that the government should invest more in human capital to encourage economic growth in the country through increased productivity and improved technology and innovations. Therefore, both public and private expenditures on education are viewed as investments just like investments in manufacturing and land. Human capital investments have not only private returns to the investor but also generate social returns in the form of a healthy society and responsible citizens. The ever-increasing household expenditure on education implies that households value education as an investment as they regard investing in education to yield high returns in the future. This view suggests that individuals who commit higher budgets towards their education expenses are likely to progress to higher levels of education as well as complete at the expected age as opposed to those who receive less to nothing towards their schooling expenses.

However, some groups such as religious and social groups and culturally conservative groups prefer educating or sending boys to school over girls and invest less in the education of girl children. Education bias can be one of the major challenges that individuals might face. Such challenges might be inflicted by individuals, and social phenomena such as culture, religion and society. This means that there will be more educated men than women, creating an education gender gap between men and women. Such practice has come a long way, and it is still practised in some societies the end result is that women find it hard to complete even the first level of education. Tilak (2002) refers to various social and cultural reasons and households might spend or may have a preference to spend on the education of their sons than their daughters or vice versa. Household characteristics, such as religion, caste, household size, educational levels of the parents, occupational of parents, etc. embedded in the so-called social, cultural, religious and regional biases are viewed as the main influences on the nature and quantum of household investments on the education of their children. Therefore, it is very important to understand the role of household expenditure, gender, religion and economic and social groups in determining the educational attainment of individuals in the household.

Further, due to differences in social organisation, different states in India have different levels of commitment towards the education system as well as its performance in their states and regions. Hence, this paper aims to investigate the determinants of education attainment in the major 17 states of India. In the empirical investigation, this paper uses the 2012 NSSO data at the individual level comprising 2,48,098 individuals in these 17 states. To capture the education level completed, all levels of education from the lowest to the highest level of education are ordered, primary education being the lowest level of education and post-graduation being the highest level of education. Since educational attainment is an ordered category that is, attaining each level of education is conditional on not exiting the education process after completing the previous level of education, the ordered logit model of estimation is used in the empirical analysis.

REVIEW OF LITERATURE

Bhaumik and Chakrabarty (2008; 2009) analyse the differential role of human capital or educational attainment in explaining earnings differentials by gender and socioeconomic groups. They note that while the earnings differentials by religion or social constructs such as caste or between Indian wage earners and their counterparts in other emerging markets are well documented (Bargain *et al.* 2009), the inter-group differences in educational attainment, specifically the issue of transition from one educational level to the next remains relatively unexplored (Bhalotra and Zamora, 2010). The estimated results suggest that in both rural and urban areas, the transition probabilities for men are higher than for females for all educational levels. The difference in transition probabilities of men and women is particularly higher in rural areas. There also exists a significant rural-urban divide. Transition probabilities of urban females, while significantly lower than those of their urban male counterparts are comparable to, and marginally better than, those of their rural male counterparts. They attribute these differentials to poor economic conditions that decrease the funding from state tax revenues, availability of student loans, chances of working a part-time job as well as increases in tuition fees and other private costs of education.

Bhaumik and Chakrabarty (2010) investigate the relative impact of personal household and state-level characteristics including government policy on the likelihood of transition educational levels using the 61st round of the NSSO survey. The data used contains 14332 individuals in the 25-30 age group cross classifying as Hindus and Muslims and the levels of education

considered are primary education, middle education, higher education and tertiary education. The order logit model has been applied for analysing the odds of transitions from primary education level to tertiary education. The estimated results show that the transition to a higher level of education of Hindu individuals is influenced by the household characteristics or family background, government policy and the economic environment prevailing in the state at the time of the relevant decision. The educational attainment of the household head and the socioeconomic status of the household have a significant and positive impact on the likelihood of the transition at each level of an individual's educational attainment and such influences are more effective at the first level of education. Both government policy and the stage of economic development of the state have a positive impact on the likelihood of transition to middle school and higher secondary level education. However, the level of development does not have any influence on moving to tertiary education but government expenditure has a negative influence. In the case of Muslim individuals, household head and economic status have a significant positive impact on individual transition likelihood at each level of educational attainment while household head educational attainment has less influence, especially at lower level of transitions. Compared to a Hindu, Muslim individual transition likelihood is inversely related to the literacy rate of the resident state. For women, the likelihood to move to the next higher level of education declines from primary to middle school or higher level of education and government policy and state-level economic environment influence the transition likelihood as well.

Bhaumik and Chakrabarty (2012) examine high school dropout rates in India, which has a negative effect on human capital formation and as a result poor long-term economic growth potential. Using the 2004-05 NSSO employment-unemployment survey data, the transition probabilities of moving from a number of different educational levels to higher educational levels are estimated by a sequential logit model. The transition probabilities and educational attainment of males and females in rural and urban areas are estimated as a function of family background, gender, ethnicity and religion. The sequential logit model to estimate the transition probabilities is also used by Sander (1992) and Tansel (1997; 2002). The estimated results suggest that the overall probability of reaching tertiary education is very low. Further, the results reveal that women are significantly worse off even by the overall standards, particularly in rural areas.

Chaudhri and Jha (2011; 2012) studying child poverty, demographic transition and gender bias in education identify some of the major characteristics of demographic transition and child education and their relation to household poverty status in India. The evidence from their analysis of the census data (1951-2001) and the NSSO surveys of 1993-94 (50th round) and 2004-05 (61st round). They stress that even though total fertility rates have declined for the country as a whole including all the states, there is a considerable variation by space, poverty status and education of women in the household in the two cross-sections. The probit and logit estimates also reveal evidence for gender bias in education. The sequential logit model indicates that children (under 15 years of age) growing up in poor and/or nutritionally deprived households also live with a number of challenges of deprivations that stifle their freedom to actively participate in and benefit from early or elementary school education. Lack of health care, limited access to quality schooling and opportunity cost of participation in education are some of the layers that prohibit girl child education in India.

DATA AND METHODOLOGY

In the empirical analysis of the determinants of completion of education level by an individual, this paper uses individual-level data from the 2012 NSSO 68th round data for 17 major states in India. States included in the study are Andhra Pradesh, Bihar, Jharkhand, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Chhattisgarh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, Uttarakhand and West Bengal. The 17 major states in India account for 87% of India's population and over 85% of India's GDP. The left-out states are the North Eastern states and Jammu and Kashmir, as major political uncertainties and insurgencies in these states impact educational outcomes differently compared to the 17 states where the educational outcomes are generally from these exigencies. Some other states are later carved out of an existing state or clubbed with other states in the educational system. Therefore, it is empirically difficult to include them with the chosen states. The sample for these 17 states consists of 2,48,098 observations. The data contains individual information such as gender, religion, urban/rural location, monthly household expenditure on education, community, education and age. All education levels completed from the lowest primary education to the highest level of education are considered. As educational attainment is an ordered category, the empirical analysis uses an ordered logit regression estimation method.

The focus is on individuals in the 6-34 age groups. At the age of 6, an individual should have completed the first level of education which is the primary level. One year is added to this age to make provision for any other event that may have occurred to delay finishing the primary level on time. That makes the individual to complete a lower level of education at $(6+1)=7$ years of age. If an individual did not complete it at that age, then it is treated as failure or exit. For instance, someone who is 34 years of age in the year 2012 should have completed his primary education in the year 1985, at the age of 7, and it is assigning a dummy=1 otherwise 0. After completing the primary level, the individual can choose to continue to the next level and is expected to complete the 12th standard at the age of 18 $(17+1)$, that is by the year 1996, if not will exit, and go for three years of undergraduate completing at the age 21 by year 2002. Then, the individual may choose to continue to post-graduate education for 2 years completing at age 24 $(2+1)$. Hence, at the age of 34, an individual should have completed all 6 levels of education, possibly still higher levels like a Ph.D. degree. Therefore, the upper age limit is influenced by the availability of data and the upper age limit is chosen as 34 years. All educational decisions by the individual to move from the lower level (j^{th}) education level to the next upper level of education ($(j+1)^{\text{th}}$) are influenced by the individual, household and economic conditions prevailing at the time at which the decision is taken. To account for economic and other environmental influences, this paper uses the states of India as indicators for appropriate data on economic conditions prevailing in different states of India at different times going back from 1985 to 2012.

As the education level completed by an individual is ordered from the lowest level of education to the highest education level conditional on age, the ordered logistic regression model is used in this paper. The progression through educational levels is conditional on not exiting the process after completing the previous level of education. The individual can drop out of the education system after completing one level of education or some years of education within the level. Further, not all those who completed the primary level continue into secondary level and only a few of the secondary level enter and complete the tertiary or higher education in India. Thus there is a well-defined sequence and order in education - tertiary education is higher than high school education and the sequence and the risk of not making the transition from one level of education to the next cannot be ignored. Following Bhaumik and Chakrabarty (2010), the completed education level of individuals is modelled

as an ordered logit model, specifying four levels of education - primary, middle school, higher secondary, and tertiary (diploma/certificate, undergraduate, postgraduate) levels of education that exists in the Indian education system. The ordinal structure of the education levels in India is depicted in Figure 1.

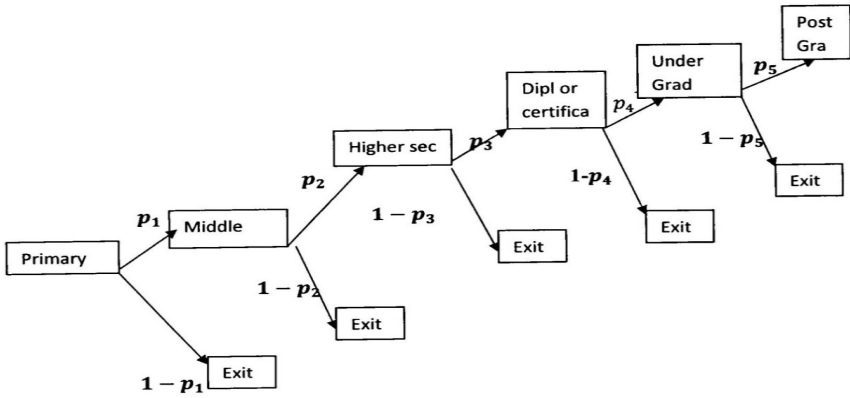


Figure 1: Ordered Structure of Education Levels in India

Figure 1 shows the probability table in order from the first/lowest level of education (primary) to the highest level of education (postgraduate) the probability of completing the highest grade at the right age (p) and the probability of not completing the next high level of education at the expected age ($1-p$). After completing any level of education j , an individual i has a choice to progress to the next higher level of education with a probability of p_j or drop out of school with the probability of $(1-p)_j$.

According to Long and Freese (2001), while categories of an ordinal variable can be ranked, the distances between the categories are unknown. Ordinal variables are often coded as consecutive integers from 1 to the number of categories, from 1 indicating the primary level of education completed to 6 indicating post graduates which is the highest level of education to be completed. As a consequence of this coding, ordinal outcomes may be analysed with the linear regression model. However, as the distance between ordinal categories is not uniform, an ordinal dependent variable violates the assumption of the linearity of OLS estimation which can lead to incorrect conclusions. Therefore, with ordinal outcomes, it is much better to use models that avoid the assumption that the distances between categories are equal. While many different models have been designed for ordinal outcomes, the logit and probit versions of the ordinal regression model introduced by McKelvey and Zavoina

(1975) in terms of an underlying latent variable and by McCullagh (1980) who referred to the logit version as the proportional odds model. The ordered regression model is nonlinear and the magnitude of the change in the outcome probability for a given change in one of the independent variables depends on the levels of all of the independent variables. The estimated coefficient summarises the effects of the independent variables in a way that fully reflects key substantive processes without overwhelming and distracting detail.

The ordinal regression model starts from a latent variable (structural) model. Defining y as a latent i.e. an unobserved variable, the underlying structural model is specified as:

$$y_i^* = \beta x_i + u_i \quad (1)$$

The observed model for a discrete outcome is specified as:

$$y_i = \begin{cases} 1 & \text{if } \beta x_i > 0 \\ 0 & \text{if } \beta x_i \leq 0 \end{cases} \quad (2)$$

The measurement model for j outcomes is expanded to divide y_i^* into J ordinal categories:

$$y_i = j \text{ if } k_{j-1} \leq y_i^* < k_j \quad j = 1, \dots, J \quad (3)$$

where the cutpoints or thresholds k_1 through k_{j-1} are to be estimated. The threshold value represents the level of x at which y changes its value. In the present study, the outcome variable completed educational level takes four possible outcome categories: 1=primary education (PED), 2=middle education (MED), 3=high secondary education (SED), and 4=higher/tertiary education (HED). These observed response categories are tied to the latent variable by the measurement model as:

$$y_i = \begin{cases} 1 = PED & \text{if } k_0 = -\infty \leq y_i^* < k_1 \\ 2 = MED & \text{if } k_1 \leq y_i^* < k_2 \\ 3 = SED & \text{if } k_2 \leq y_i^* < k_3 \\ 4 = HED & \text{if } k_3 \leq y_i^* < k_4 \end{cases} \quad (4)$$

For one independent variable, the structural model is specified as:

$$y_i = \beta x + u_i \quad (5)$$

Figure 2 plots such a model along with the cutpoints for the measurement model. The plot is similar to that for the binary regression model except that there are now three horizontal lines representing the cutpoints κ_1 , κ_2 , and κ_3 and the three cutpoints lead to four observed outcomes of the observed variable y .

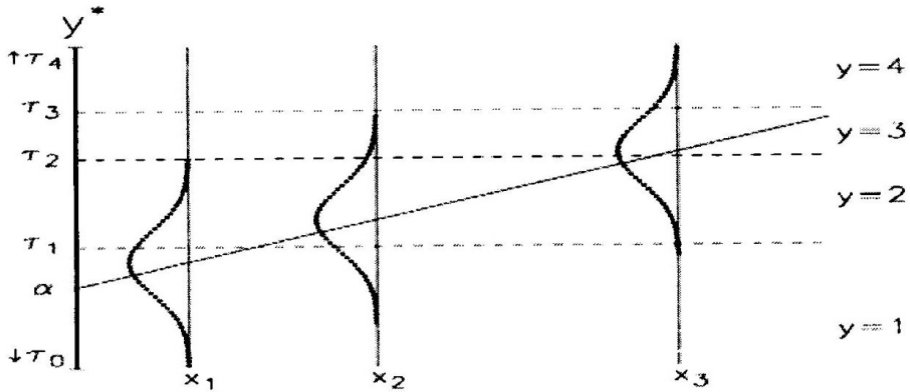


Figure 2: Plot of Latent Variable Model with Cutpoints

In terms of the graph, the probability of an observed outcome for a given value of x is the area under the curve between a pair of cutpoints. For example, the probability of observing $y = j$ for given values of x corresponds to the region of the distribution where y falls between κ_{j-1} and κ_j :

$$P(y = 1 | x) = P(\kappa_{j-1} \leq y_i^* < \kappa_j | x) \tag{6}$$

Substituting $\beta x + u$ for y^* and some algebra yields the standard formula for the predicted probability of the ordered response model:

$$P(y = 1 | x) = \Phi(\kappa_j - \beta x) - \Phi(\kappa_{j-1} - \beta x) \tag{7}$$

where Φ is the cdf. For $y = 1$, the second term on the right drops out since $\Phi(-\infty - \beta x) = 0$ and for $y=J$, the first term equals $\Phi(-\infty - \beta x)=1$.

The ordinal regression model can also be developed as a nonlinear probability model without appealing to the idea of a latent variable. The odds (π) that an outcome is less than or equal to j versus greater than j for a given x can be defined as:

$$\pi_{\leq j | x} = P(y \leq j | x) \quad m = 1, \dots, J-1 \tag{8}$$

The log of the odds equals:

$$\ln(\pi_{\leq j | x}) = \kappa_j - \beta x \tag{9}$$

For one independent variable and multiple outcome categories, the odds ratio is specified as:

$$\ln \left[\frac{P(y \leq j | x)}{P(y > j | x)} \right] = \kappa_j - \beta x \quad j = 1, \dots, J \tag{10}$$

EMPIRICAL RESULTS

Table 1 shows that not only there are more Hindus than any other religion in the 17 states, but more Hindus also complete the expected level of education at the right/expected age. About 80% of Hindus have completed the primary level of education, compared to around 20% of Muslims, almost three times less than Hindus. Only 5% of Christians have completed their first highest level of education and in other religions, only 4 percent have completed primary education level at the relevant age. In the middle education level, 71% of Hindus have completed the middle level of education at the expected age (18

Table 1: Educational Attainment in India by Religion

<i>Education level</i>	<i>Hindus</i>	<i>Muslims</i>	<i>Christians</i>	<i>Others</i>	<i>Total</i>
No formal education	53969 (71.99) [30.08]	14709 (19.62) [37.51]	3493 (4.66) [18.90]	2795 (3.73) [25.41]	74996 (100) [30.22]
Primary	29377 (70.1) [16.38]	7215 (17.22) [18.40]	3342 (7.98) [18.08]	1971 (4.70) [17.92]	41905 (100) [16.89]
Middle	33433 (71.12) [14.04]	7234 (15.39) [18.45]	4459 (9.49) [24.13]	1885 (4.01) [17.92]	47011 (100) [18.95]
Secondary	25188 (72.38) [14.04]	4720 (13.56) [12.04]	3075 (8.84) [16.64]	1816 (5.22) [16.51]	34799 (100) [14.03]
Higher secondary	20806 (73.89) [11.60]	3304 (11.73) [8.43]	2459 (8.73) [13.30]	1590 (5.65) [14.46]	28159 (100) [11.35]
Diploma / Certificate	1788 (79.71) [1.00]	181 (8.07) [0.46]	211 (9.41) [1.14]	63 (2.81) [0.57]	2243 (100) [0.90]
Under graduate	11381 (77.42) [6.34]	1442 (9.81) [3.68]	1198 (8.15) [6.48]	680 (4.63) [6.18]	14701 (100) [5.93]
Post graduate	3453 (80.23) [1.92]	408 (9.48) [1.04]	245 (5.69) [1.33]	198 (4.6) [1.8]	4304 (100) [1.73]
Total	179395 (72.31) [100]	39213 (15.81) [100]	18482 (7.45) [100]	10998 (4.43) [100]	248098 (100) [100]

years), while only 15% of Muslims and 9.5% of Christians have completed the middle level of education. Again at the undergraduate level, 77% of Hindus, 10% of Muslims and 8% of Christians have completed undergraduate at the expected age. In regard to the postgraduate level, 80% of Hindus, 9.5% of Muslims and 5.5% of Christians have completed post-graduation at the expected age.

The estimating ordered logit regression equation is specified as:

$$P(y_i = j | x) = \beta_1 \text{Age} + \beta_2 \text{HHIncome} + \beta_3 \text{HHSIZE} + \beta_4 \text{Gender} + \beta_5 \text{Religion} + \beta_6 \text{Community} + \beta_7 \text{Residence} + \beta_8 \text{Occupation} + \beta_9 \text{State} + u_i \quad (11)$$

The y_i is conditional in that the probability for y to occur given x is only if j has been completed. The $j-1$ in J is the previous or lower level of education that should be completed before moving to the next higher level of education. The determining variables include age, gender, occupation and employment, household size, religion, community, and state dummies to capture the economic and physical environment that affects an individual's educational progress.

The estimated ordered logit regression coefficients are presented in Table 2 along with the odds ratio. The coefficients of ordered logit regression are the estimates of the probability of moving from primary education to any of the further levels of education. The estimated results show that almost all the estimated coefficients are statistically significant. A year of additional age increases the probability of completing the highest level of education by 0.123 units and the odds ratio is 0.132. Similarly, an increase in monthly per capita expenditure, a proxy for household income, increases the probability of the highest education completion by 2.75% and the corresponding log of odds is 0.317. An addition of a family member is expected to increase the log odds of the highest education level completed by 0.018. If an individual is Hindu or Muslim, the probability of completing the highest education decreases by 0.153 and 0.676 while the log odds of completing a higher level of education at the expected age increases by 0.131 for a Christian compared to other religious groups. Males have a 0.282 higher probability of completing the highest level of education at the right/expected age relative to females. Similarly, the rural background depresses the probability of completing education at the expected age by 1.82%.

Community backgrounds have a negative effect on the level of education completed. However, the probability of completing the education level is

Table 2: Ordered Logit Estimates of Educational Attainment

<i>Variable</i>	<i>Coefficient</i>	<i>Std. error</i>	<i>z</i>	<i>Odds ratio</i>
Age	0.124*	0.0005	25.76	1.132
Monthly household per capita expenditure	0.275*	0.003	82.32	1.317
Household size	0.018*	0.001	7.60	1.018
Male	0.282*	0.007	38.05	1.325
Hindu	-0.153*	0.020	7.60	0.857
Muslim	-0.676*	0.022	30.41	0.508
Christian	0.123*	0.023	5.15	1.131
SC	-0.051*	0.012	41.15	0.600
ST	-0.539*	0.015	37.28	0.583
Rural	-0.181*	0.009	20.79	0.834
Agriculture	-0.421*	0.020	20.93	0.654
Non-agriculture	-0.458*	0.019	24.37	0.632
Salary	-0.093*	0.019	4.89	0.911
Agricultural casual labour	-0.566*	0.026	37.03	0.381
Non-agricultural casual labour	0.018*	0.021	52.22	0.340
State dummies	Yes			
Cutpoint1	0.769			
Cutpoint2	1.707			
Cutpoint3	2.752			
Log-likelihood	-383997.99			
LR chi ²	99242.4			
Prob.>chi ²	0.000			
Pseudo R ²	0.115			
Obs.	248098			

Note: Standard errors are in parentheses. * significant at 1% level.

relatively higher for scheduled castes (-0.05) compared to scheduled tribes (-0.54). Occupation-wise, all employments have negative effects on completion of education levels, except the non-agricultural casual labour who may have slightly improved access to government educational schemes and subsidies. The situation is slightly better for salary workers whose probability of completing the highest education level (-0.09) is higher than dependents of agriculture. In the case of state dummies, individuals belonging to the states of Tamil Nadu, Kerala, Maharashtra or Karnataka have better chances of completing the highest grade at the expected age as compared to other states of India. The estimated cutpoint or threshold values for the latent variable where an individual moves from reporting one level of completed education to another level suggests that

a value of the latent variable less than -0.769 corresponds to primary education level completion, a value between -0.769 and 1.701 corresponds to completion of middle education level of and a value between 1.707 and 2.752 corresponds to secondary educational attainment and a cutpoint value above 2.752 corresponds higher education level. The likelihood ratio chi-square statistics for the estimated regression model are also significant. Thus, the model specified fairly explains the variation in educational attainment and fits reasonably well with the data.

The transition probability of completing education levels by religion, gender and residence is reported in Table 3. It can be observed that the probability of educational transition is higher at lower levels of education completed than at higher levels. Irrespective of religion, gender or residence, the mean probability of completion of primary education level is consistently higher than the completion of college-level education. Similarly, the Hindus have a higher mean probability of completion of each level of education compared to Muslims and urban residents have a higher mean probability of completion of education level relative to the rural residents.

Hindu males from urban areas have a lower probability of completing the primary level than their rural counterparts (0.129 vs 0.179). The mean probability of a Hindu from a rural area completing primary education is also higher (0.173) compared to their urban counterparts (0.127). However, the urban Muslim females have a higher mean probability of completion of primary education (0.217) relative to the rural Muslim females (0.173). Hindu males from rural areas have a higher mean probability of completing postgraduate education (0.032) compared to male Muslims in rural areas (0.020). The same can be said for Hindu females in urban areas who have a higher mean probability than Muslim females from urban areas.

Table 3: Mean Transition Probabilities of Completion of Education Level

Education level	Hindu				Muslim			
	Male		Female		Male		Female	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Primary	0.179	0.129	0.173	0.127	0.172	0.221	0.173	0.217
Middle	0.227	0.269	0.223	0.263	0.234	0.298	0.267	0.291
Secondary	0.208	0.213	0.208	0.214	0.209	0.216	0.208	0.291
Under graduate	0.104	0.148	0.108	0.150	0.077	0.105	0.082	0.107
Post graduate	0.032	0.054	0.032	0.053	0.020	0.031	0.022	0.031

CONCLUSION

Education is an engine that stimulates and accelerates the economic growth and development of any type of country as well as for individual development and progress. Therefore, individual spending on education is regarded as an investment. Apart from government and private spending on education, the general environment including demographic characteristics and government policies are important determinants of individuals. Individual educational choices and performance are to be viewed from a broader perspective not only limited to what the government supply in the form of grants to schools or other forms of benefits to schools. Individual educational choice, as well as performance, is influenced by regional differentials in economic policies as well as different environmental factors. The effects of household expenditure, household size and composition, gender, religion, community, social groups, regional aspects and state policies on both educational investments as well as education attainment are well documented. It is also well-researched that both governments and households spend increasingly on education. However, can it be concluded that individuals who receive higher budgets towards their education expenses are likely to progress to higher levels of education completing at the expected age as opposed to those who receive less to nothing towards their schooling expenses? An answer to this is complex and the evidences are less convincing.

Therefore, this paper investigates the determinants of education attainment in the major 17 states of India using the 2012 NSSO data applying the ordered logit model. The estimated logit estimates show that age, household income, and household size increase the probability of completing the educational levels. The males have a higher probability of completing the highest level of education relative to females. Hindu and Muslim individuals have a lower probability of completing the highest education while the log odds of completing a higher level of education are higher for Christians. The rural background depresses the probability of educational attainment. The community backgrounds have a negative effect on the level of education completed. The probability of completing the education level is relatively higher for scheduled castes compared to scheduled tribes. All employments have negative effects on completion of education levels, except the non-agricultural casual labour. The salary workers have a slightly higher probability of completing the highest education level than dependents of agriculture. Individuals belonging to the states of Tamil Nadu, Kerala, Maharashtra or Karnataka have better chances of

completing the highest grade compared to individuals in other states of India. The probability of educational transition is higher at lower levels of education than at higher levels. Irrespective of religion or gender or residence, the mean probability of completion of primary education level is consistently higher than the completion of college-level education. Hindus have a higher mean probability of completion of each level of education compared to Muslims and urban residents have a higher mean probability of completion of education level relative to the rural residents.

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