Who Completes Secondary Education in India? Examining Role of Individual and Household Characteristics

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1 Background

Education, one of the most potent instruments for social inclusion and socio-economic upward mobility, holds the key to sustainable development. Therefore, promoting an equitable, inclusive and well-structured educational system should occupy the centre stage of the development agenda in each society. While India has made considerable improvement at all levels of education, it is yet to achieve the desired outcome at both the secondary and higher education level.

As universal elementary education comes close to realisation, there are concerns about whether secondary education will withstand the pressure of increasing numbers of children moving up to that level. In the past couple of decades, it is further argued in the literature that secondary education needs to be expanded, both as a response to increased social demand and as a feeder cadre for higher education. It is often termed as the key link between education and economic development, preparing young adolescents to learn life skills and participate in the growth process (Biswal 2011; Singh 2015). The CABE committee report (2005) further notes that 'universal secondary education is a pre-condition for equitable social development, widening participation in India's democratic functioning, building up of an enlightened secular republic, and becoming globally competitive' (p. 14). Thus, to achieve universal access to secondary education, Rashtriya Madhyamik Shiksha Abhiyan (RMSA) was launched in March 2009 with the goal of universal access to secondary education by 2017 and universal retention by 2020. The scheme not only seeks to escalate the gross enrolment in Grades IX and X by improving access, but also to improve the quality of education imparted. In 2009, when the RMSA was initiated, India's GER at the secondary education level was only 63%. This figure was not only way

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below that of Latin American countries (82%), but also lower than other Asian peers (70%) (Siddhu 2010). After that, the GER improved substantially, and in 2014–15, the GER at the secondary level reached 78.5% (MHRD 2016), albeit with huge variation across regions and income groups. A World Bank report (2009) states that access to secondary education in India is highly unequal, with a 40% point gap in secondary enrolment rates between students from the highest and lowest expenditure quintile groups (70% versus 30% enrolment, respectively). A further worrisome aspect is the high drop-out rate at this level due to various reasons. Around 35% of the students, enrolled in Grade IX, drop out before completing Grade X and 38% before completing Grade XII (CSD, 2018). National Sample Surve (NSS) data for the year 2014 highlights that across all educational levels, 'lack of interest in education' is one the most significant factors; at the secondary level, where costs rise substantially, financial constraints (20.4%) becomes a more pressing reason for dropping out, pushing out adolescents to engage in economic (18.6%) and other domestic activities (15.6%). Further, the children, who are getting enrolled to Grade IX but are unable to complete secondary stage, are in effect left with no choice but to take up unskilled and low paid jobs, since elementary education does not allow them to even undertake vocational courses.

An ample body of the literature in this area underlines that there are a number of 'push' and 'pull' factors which critically impact the decision of students to drop-out. While push factors are mainly related to schools, namely availability of the school in the vicinity, school size, teacher quality, cost of schooling etc., the pull factors include individual and family characteristics (Tilak 2002; Rumberger and Lim 2008; Singh and Mukherjee 2015). Studies have found that gender, ethnicity, father's education and economic condition of the households play crucial roles in determining the survival through and completion of the level, apart from child's ability and quality of schooling (Suryadarma et al. 2006; Stearns and Glennie 2006; World Bank 2009; Biswal 2011; Singh and Mukherjee 2015; Härmä et al. 2016). In the case of rural Uttar Pradesh, it was found by Siddhu (2011) that individual and household characteristics such as gender, socio-economic status, educational attainment of parents and number of children in the family significantly affect decisions about schooling. Analysing the all-India level data of 2009–10, Basumatry (2012) notes that poverty level of a particular State has a statistically significant impact on drop-out rates, particularly in the rural areas. NSS data further suggests, in the Indian context, that age-specific enrolment rates are much lower than gross enrolment rates. This implies, many who reach secondary level of education are overage for their grades. This is even more prevalent among Scheduled Castes (SCs), Scheduled Tribes (STs) and Other Backward Castes (OBCs), for whom enrolment rates may have to double to reach universal levels (Härmä et al. 2016). Based on Young Lives longitudinal data from Andhra Pradesh for the years 2007, 2008, 2010 and

2014, Singh and Mukherjee (2015) find that pre-school attendance is a significant predictor of secondary education completion. The study further shows that children, who attended private pre-schools are 2.2 times more likely to succeed in completing secondary schooling than those children who did not attend any pre-school. Interestingly, no significant association was found between attendance of public pre-schools and secondary education completion. Thus, based on the survey of the literature, one could posit that there are several intertwined factors that act simultaneously to determine the access, survival, transition and completion of secondary level of education.

With this backdrop, the present paper attempts to examine the determinants of completion of secondary education considering socio-demographic, household and individual factors.

Rest of the paper is organised as follows: Section 2 presents the data. Section 3 describes the estimation strategy, Sect. 4 provides the empirical results and in Sect. 5 a few concluding observations are made.

2 Data

The paper draws on the unit-level data of National Sample Survey (NSS) 71st round on 'Social Consumption: Education', conducted in 2014. This specific round is chosen as it is the most recent nationally representative survey conducted specifically focussing on education. Like all other rounds of NSS, 71st round survey had also adopted a stratified multi-stage sampling design. A sample of 65,926 household*s*, 36,479 from rural areas and 29,447 from urban areas, spread across the country, was surveyed in this round. It provided exhaustive information on educational participation of the individuals, belonging to the age group 5–29 years, and the private expenditure incurred by them at different levels of education, along with other variables like educational wastage in terms of drop-out and its causes, the extent of use of educational infrastructure, or facilities and incentives provided by the government, etc.

However, the present study considers only those who have at least completed elementary education, which is a prerequisite for enrolling at the secondary level. The study further considers the age cohort 15–20 years, as the literature already indicates that considerable number of students in India are over-aged (at least by 2 years) for the secondary grade, due to late entry in school (Härmä et al. 2016). Thus, their completion also gets delayed along with the fact, that being over-age reduces the likelihood of completion of schooling (Lewin 2011). Ersado (2005) and Siddhu (2010) endorse the previous result; in addition, they also find a relationship between, over-age and drop-out. The present study, thus, in order to capture over-aged students, has chosen the age band of 15–20 years.

3 Method of Estimation

The principal objective of the paper is to find out the probability of an individual completing secondary education, i.e. Grade X, controlling for their individual and household characteristics. Since our dependent variable is the completion of secondary education, i.e. Grade X, the sampled students could fall into either of two groups viz. (i) those who have completed secondary education or (ii) those who could not. Since the dependent variable is categorical and dichotomous in nature, linear regression model could not be used. Therefore, a binary probit regression model has been employed in the present case.

Probit model follows a normal cumulative distribution function, and the dependent variable is normal real-valued indexed variable for observations (and is unobservable or latent). Thus, it could be argued that underlying propensity/willingness to complete secondary education for an individual is a latent variable (say, e*), which is determined by a set of socio-economic factors (say, x_j).

Hence, the latent equation is:

$$\mathrm{e}^* = x_j \beta_j + u_j$$

However, if the propensity crosses a certain threshold level (assumed zero for simplicity), it manifests itself, and thus, the individual completes secondary level. This is observable and can be represented by a dummy variable, say s, taking value 1 if the individual has completed secondary level of education and 0 otherwise.

$$s = 1 \text{ if } \mathrm{e}^* > 0 \text{ and}$$
$$s = 0 \text{ if } \mathrm{e}^* \leq 0$$

Since probit model assumes that the error term (u_j) is independently and normally distributed, therefore, it allows estimation of the likelihood of completion (of secondary grade) conditional on a set of exogenous independent variables (x_j). As a result, the determinants of the probability of completion of secondary level of education are assessed using the following:

$$\Pr(s = 1) = x_j \beta_j$$

The maximum likelihood estimates (of β_j) yield the desired response probability, i.e. the probability that the individual would complete Grade X and, at the same time, enable us to capture the direction and magnitude of impact of the set of explanatory variables on the response probability.

Table 1 Particulars of the variables used in the model

Variables	Definition
Sex_female	Dummy variable which takes value 1 if the individual is a female and 0 otherwise
Location	Dummy variable takes the value 1 if individual is from rural area and 0 otherwise
ST	Dummy variable which takes value 1 if an individual belongs to schedule tribe group and 0 otherwise
SC	Dummy variable which takes value 1 if an individual belongs to schedule caste group and 0 otherwise
OBC	Dummy variable which takes value 1 if an individual belongs to other backward caste group and 0 otherwise
Others	Dummy variable which takes value 1 if an individual belongs to non-SC/ST caste group (others, here) and 0 otherwise
Head_illiterate/no formal education	Dummy variable which takes value 1 if an individual's parent is illiterate and 0 otherwise
Head_literate/with formal education	Dummy variable which takes value 1 if an individual's parent is literate and 0 otherwise
HH Size	Size of household (continuous variable)
Distance	Distance of secondary school from home
ln_mpce	Log of monthly per-capita consumption expenditure (proxy for household income; a continuous variable)

3.1 Independent Variables

Drawing from the existing literature, independent variables (for details see Table 1) are chosen to control for the social, demographic and economic background of the individual.[1]

(i) ***Individual Characteristics***

(a) ***Gender***: Gender is the most pervasive and enduring factor of inequality which exists almost everywhere, and thus, the same is expected to be pertinent in case of secondary education as well. State-specific studies have already shown that the probability of non-completion of secondary grade is higher for girls (Siddhu 2010; Singh and Mukherjee 2015). Therefore, in order to study the gender effect, a binary variable 'sex_female' has been introduced. It takes the value 1 if the individual is a female student and zero otherwise.

[1]This paper has the limitation of not being able to include school-level quality indicators such as teaching–learning processes. Further, the study has not included religion as a controlling variable.

(ii) ***Household Characteristic***: Ample body of the literature already highlights that social group/caste,[2] parental education and the household's socio-economic status play crucial roles in influencing the odds of participation at the secondary grade by individuals.

(a) ***Social Group***: The diverse nature of Indian society, in terms of different social groups, makes it all the more important to study how caste or social group of individuals influences their educational outcomes. The literature shows that enrolment rate varies enormously across various caste groups at all the levels of education. Thus, it is imperative to examine whether the same has any impact on individual's probability to complete secondary education, i.e. Grade X. Therefore, to estimate the same, we have included variables, namely 'SC', 'ST', 'OBC', and 'others', to indicate social group of the individual to which she/he belongs. In general, one would expect that households belonging to SCs, STs and OBCs will have lesser odds of completing secondary education.

(b) ***Education of Head of the Household***: The NSS data set does not provide direct information of individual's parental education; instead, it gives information on education level of head of a household along with relation of each member of the household to the household head. This information is used to create household head's education variable for each children of that particular household. Household head's education is, therefore, used as a proxy for parental education of a particular child. For estimation, household head's education is included in the probit model as a binary dummy 'head_illiterate/no formal education', 'head_literate' to allow for the fact that when parents are literate, there will be a better probability of enrolment and completion of secondary grade. Several studies have corroborated similar result (Siddhu 2011; Singh and Mukherjee 2015).

(c) ***Household Income***. Studies depict that at the secondary level, when cost (both direct and indirect) of attending educational institution increases, the likelihood of completion decreases substantially. This is, particularly, true for the older students who have higher opportunity costs in areas where there is paid employment available. Further, girls, especially from lower income quintiles, are also not encouraged to go to school and expected to contribute in household activities and also married off. Therefore, one can argue that the economic background of a household may have considerable impact on completing secondary education. There is ample evidence which corroborate this fact (Siddhu 2010; Lewin 2011; Singh and Mukherjee 2015; Härmä et al. 2016). Thus, we have included the log of household monthly per-capita consumption expenditure (*ln*MPCE) as a proxy for household income as NSS does not provide individual or household income or assets directly.

[2]The study has interchangeably referred caste and social group. NSS data refers caste as social group.

(f) ***Household Size***. As household demographic variable, we have also taken the household size (hh_size) as an explanatory variable. Studies suggest that larger the household size, the less will be spent on education which, in turn, will ultimately manifest in lower enrolment and completion from bigger families (Singh and Mukherjee 2015; Myhr et al. 2017).

(g) ***Distance of school***. The role of access to schooling in determining educational outcomes has been well recognised in the literature (Duflo 2001 and 2004; Filmer 2007; Glick and Sahn 2006; Orazem and King 2007); most of it relates to access to primary schooling and its effect on enrolment. There are few studies which attempted to examine the same with regard to post-primary/secondary education (Lavy 1996; Muralidharan and Prakash 2012, 2013). Nonetheless, the results are, sometimes, contradictory. The present study has incorporated this variable so as to have an idea as to whether access (in terms of distance of school) to school really affects secondary grade completion.

4 Empirical Results

4.1 Completion of Secondary Education by Household Characteristics: Sample Characteristics

Drawn on NSS 71st round unit-level record, Table 2 shows that within the age cohort of 15–20 years, 49% girls and 48.2% boys completed secondary education by 2014. With regard to caste groups, the data further reveals that within the same age cohort, 53.8% students from non-backward caste (*Others*) completed secondary vis-à-vis 40.1% STs and 42.8% STs. Contrary to the expectation, the number of non-completing individuals is high in urban areas (53.7%) than in the rural areas (45.4%). Access to secondary school in terms of distance from the household shows that if the school is located far (more than 5 km.) from the residence, a huge chunk of students (62.22%) drop out without completing the grade.

4.2 Empirical Results of the Econometric Analysis

This section is devoted to estimating the results from probit regression model, mentioned in the previous section, where completion vis-à-vis non-completion of secondary grade has been taken as dependent variable. The focus is to estimate the probability that an individual in the age group of 15–20 years has completed secondary grade, based on maximum likelihood estimates obtained from the associated probit model. Further, in order to assess the magnitude of impact of an explanatory variable, the corresponding 'marginal effect' has been calculated. The estimation

Table 2 Descriptive statistics: secondary education by individual and household characteristics

Explanatory variables	Secondary education	
	Not completed (n = 38,111,629)	Completed (n = 35,991,426)
Gender		
Male	51.8	48.2
Female	51.0	49.0
Location		
Rural	45.4	54.6
Urban	53.7	46.3
Social group		
ST	59.9	40.1
SC	57.2	42.8
OBC	50.0	50.0
Others	46.2	53.8
Distance of school		
$d < 1$ km	48.23	51.77
1 km $d < 2$ kms	48.99	51.01
2 kms $d < 3$ kms	54.57	45.43
3 kms $d < 5$ kms	59.48	40.52
$d \geq 5$ kms	62.22	37.78
Household head's education		
Head illiterate/no formal education	51.4	48.6

Source Author's computation based on NSS 71st round (Unit-Level Records)

has been done separately for all-India level, for males and females and also for rural and urban regions. The results are discussed below.

4.3 Impact of Social Group

Given the diversity of India, it is important to examine whether and how the social background of the individual influences the completion of secondary grade. Probit estimation is done to examine the same, controlling for location (rural/urban), household expenditures, gender and so forth.

Table 3 provides the probit estimates for all-India level along with the marginal effects. Marginal effects indicate how the odds of completion differ for different social groups, with reference to *Others* (non-backward group). At the all-India level, one could see that individuals belonging to backward caste-groups have lower odds

Table 3 Probability of completing secondary grade: probit estimates at all-India level

Completed_secondary	Coef.	Std. Err.	$P > \|z\|$	Marginal effect
Sex_female	0.030	0.026	0.252	0.012
Rural	0.067	0.030	0.124	0.027
ST	−0.147	0.046	0.001	−0.058
SC	−0.136	0.039	0.000	−0.054
OBC	−0.002	0.032	0.950	−0.001
lnMPCE	0.447	0.027	0.000	0.178
HH size	0.001	0.006	0.851	0.000
Distance	−0.058	0.011	0.000	−0.023
Head_illiterate/no formal education	0.012	0.037	0.742	0.005
Constant	−3.181	0.229	0.000	
Number of obs = 24,374				
Wald chi 2(8) = 488.21				
Log pseudolikelihood = −49,623,290 Pseudo R2 = 0.0330				

Source Author's computation based on NSS 71st round (Unit-Level Records)

of completing secondary education. The table shows that STs and SCs have, respectively, 5.8% and 5.4% lower likelihood of completing secondary education than that of *other* category students. The data further depicts that although OBCs also have lower chances of completing secondary education, they are at least in a better position than SCs and STs, as they have negligible (0.1%) lower odds of completing secondary grade than the non-backward caste-groups/*others.*

The gender-wise disaggregation of the data highlights a similar trend. It is evident from Table 4 that both SC and ST males and females are in disadvantageous situation and have lower odds of completing Grade X compared to others. The coefficients for OBCs are statistically insignificant both at all-India level and across gender.

Location-wise disaggregation also depicts a similar trend. Table 5 shows that SC students, living in urban localities, are in the most disadvantageous situation and have approximately 8.7% less probability of completing secondary education than that of other/non-backward group.

All these findings are in line with the previous studies, depicting the low completion (along with lesser enrolment) of individuals belonging to the backward Caste group. An important reason could be that caste and economic status of individuals are highly correlated in India, and the literature notes that household income strongly influences enrolment and completion of secondary schooling.

4.4 Impact of Location, Distance of School and Household Size

It has been already established that in India, there is a considerable gap between urban and rural populations in terms of their educational outcomes, with rural children's participation lagging by 20% points at the secondary level (Siddhu 2010). Studies further highlight that location of residence has important role to play in impacting the chances of staying in school, progress through grades or completing a specific grade; nonetheless, the impact is, usually, through the distance to school (Siddhu 2010; Härmä et al. 2016). The present study also finds a similar result, where the coefficient of location is statistically not significant. However, the variable distance of school negatively related to probability of completing secondary education and the coefficient are highly statistically significant, except for urban localities. At the all-India level, increase in distance (see Table 3) lowers the probability of completing secondary grade. Similar trends are evident for males and female (Table 4) and in the case of rural locality (Table 5). In the case of urban areas, the coefficient is statistically not significant probably because of the better transport facilities (to commute to school) in comparison with rural areas. Data further suggests that household size has no significant role to play in determining the probability of completing secondary level of education. This is true across the board.

Table 4 Probability of completing secondary grade: probit estimates by gender

Completed_secondary	Male				Female			
	Coef.	Std. Err.	$P > \|z\|$	Marginal effect	Coef.	Std. Err.	$P > \|z\|$	Marginal effect
Rural	0.081	0.040	0.043	0.032	0.055	0.044	0.206	0.022
ST	−0.112	0.062	0.073	−0.044	−0.186	0.067	0.006	−0.074
SC	−0.154	0.052	0.003	−0.061	−0.108	0.058	0.064	−0.043
OBC	−0.016	0.044	0.714	−0.006	0.014	0.047	0.767	0.006
lnMPCE	0.455	0.037	0.000	0.181	0.434	0.040	0.000	0.173
HH size	−0.005	0.009	0.566	−0.002	0.007	0.009	0.476	0.003
Distance	−0.049	0.014	0.000	−0.020	−0.068	0.016	0.000	−0.027
Head_illiterate/no formal education	−0.091	0.057	0.112	−0.036	−0.085	0.049	0.085	−0.034
Constant	−3.135	0.313	0.000		−3.123	0.333	0.000	
Number of obs = 13,410					10971			
Wald chi 2(8) = 112.85					106.55			
Log pseudolikelihood = −9151.4066					−7487.47			
Pseudo R2 = 0.0146					0.0151			

Source Author's computation based on NSS 71st round (Unit-Level Records)

4.5 Impact of Economic Status of Household

Studies have already found that family income does play an important role in child's educational attainments. While Haveman and Wolfe (1995), through an extensive survey of literature, concluded that lower parental income levels do result in lower educational outcomes for their children, the study by Hasan and Mehta (2006) ascertained the positive impact of household's better-off economic status on college enrolment in India. In the case of India, Lewin (2011) notes that household income has a critical role in determining enrolment in secondary school. Tamim and Tariq (2015) argue that any level of direct costs can be enough to exclude the poor. This is mainly because of the reason that direct and indirect costs of (even) secondary level schooling remain substantial in India. Drawing on large household surveys, Lewin (2011) notes that in India, the poorest allocates less than five per cent of total expenditure to education. 'Even if the assumptions are varied such that 10% of expenditures are available for education, it would remain the case that most would find secondary schooling unaffordable. At 10%, only the top two urban quintiles and the highest rural quintile could afford the costs'.

The results, reported in Tables 3, 4 and 5, reveal that households' economic status, in terms of lnMPCE, plays a critical role in determining the likelihood of completing secondary grade. At all-India level, it is evident that one per cent increase in MPCE increases the probability of completing Grade X by 17.8%. The trend is similar in both rural and urban areas as well as for males and females.

Table 5 Probability of completing secondary grade: probit estimates by location (rural and urban)

	Rural				Urban			
Completed_secondary	Coef.	Std. Err.	$P > \|z\|$	Marginal effect	Coef.	Std. Err.	$P > \|z\|$	Marginal effect
Sex_female	0.015	0.032	0.652	0.006	0.061	0.040	0.129	0.024
ST	−0.155	0.053	0.004	−0.061	−0.069	0.092	0.453	−0.028
SC	−0.110	0.048	0.022	−0.043	−0.220	0.064	0.001	−0.087
OBC	−0.005	0.041	0.897	−0.002	0.010	0.046	0.825	0.004
lnMPCE	0.440	0.036	0.000	0.175	0.458	0.039	0.000	0.181
HH size	0.002	0.008	0.766	0.001	−0.003	0.010	0.737	−0.001
Distance	−0.061	0.012	0.000	−0.024	−0.031	0.025	0.212	−0.012
Head_illiterate/no formal education	−0.034	0.046	0.455	−0.014	0.125	0.061	0.142	0.050
Constant	−3.017	0.289	0.000		−3.375	0.340	0.000	
Number of obs = 14,498					9883			
Wald chi 2(8) = 90.68					85.86			
Log pseudolikelihood = −9910.6817					−6710.08			
Pseudo R2 = 0.0099					0.146			

Source: Authors' computation based on NSS 71st round (Unit-Level Records)

4.6 Impact of Gender and Educational Profile of Household Head

Gender is widely documented as a crucial factor in all types of schooling choices in India, including whether or not the child get a chance to attend school and till what age and level and in what type of school. Drawing on the household-level data, Rawal and Kingdon (2010) find a large gender gap in participation of individuals at the primary level. Nonetheless, Härmä et al. (2016), on the basis of NSS 71st round, concludes that, at the secondary level, girls are catching up, particularly since 2010, and the gender gap is gradually narrowing down at this level of education.

On the basis of probit estimates reported in Tables 3 and 5, one can argue that gender is not acting as a critical variable in determining the completion of secondary grade in recent times (the coefficient is statistically insignificant). NSS 71st round education data shows that while the overall secondary grade completion rate is 53% at all- India level, the same for female is only a little below, at 50.9%.

The present study further suggests that household head's educational level (in terms of whether being literate and illiterate has any role in influencing their wards' secondary completion) plays a statistically insignificant role in determining the odds of secondary grade completion at the all-India level. This result holds true for both rural and urban areas. However, the gender-wise disaggregated result provides contrary evidence—for females, if the head of household is illiterate or does not have any formal education, the individuals would have lower chances of completing

secondary grade. Drawn on longitudinal data from Andhra Pradesh, Singh (2015) shows if the father has attained beyond secondary level of education, it can significantly (statistically) impact the likelihood of Grade X completion for the lower income quintile.

5 Conclusion

To conclude, it could be argued that Rashtriya Madhyamik Shiksha Abhiyan (RMSA) is a major initiative designed to address the low rates of participation at lower secondary level. Although this initiative has substantially increased the enrolment rate since the 11th five year plan, it still lags behind BRICS (Brazil, Russia, India, China and South Africa) countries with whom India is often compared. India's secondary education participation rates are only comparable to sub-Saharan Africa (Lewin 2011). It is, thus, perhaps not surprising that in India, high school completion rate still remains an abysmal 42% (Sahni 2015).

In this context, the current study throws light on the significant determinants of successful completion of secondary education among 15–20 years age cohort sample of children in India, and it is clearly evident that there are a multitude of factors which impact the same. The study by Lewin (2011) argues that low levels of access to secondary schooling play a critical role on both transition to and completion of secondary level. It further notes that—'where few go to secondary school, many will lack the motivation to persist to Grade VIII, and may judge the costs greater than the benefits' (p. 382).

Based on unit-level records on NSS 71st round, the present study shows that economic status of household (measured in terms of lnMPCE) and caste/social group of individual are two most important factors that play crucial roles in determining the probability of secondary grade completion. This trend holds true across the board. Several other studies, devoted to this area, also corroborate the same (Siddhu 2010; Lewin 2011; Singh 2015; Härmä et al. 2016).

Contrary to the popular belief, this study shows that the probability of completion of secondary grade for the girls is not statistically different than that of boys. This is an encouraging result as Härmä et al. 2016, already document that the gender gap in secondary education participation is continuously decreasing since 2010. The study further highlights that location of residence does not significantly influence the odds of completion, though; however, it is the distance of the school from the household which matters. The probit estimates reveal, at the all-India level, increase in distance of school from home (see Table 3) lowers the probability of completing secondary grade. A similar trend is evident across gender. Interestingly, in case of urban areas, the distance of school does not significantly impact completion of secondary grade. Availability of good transport facilities might be one of the reasons behind this. The results also ascertain that if the household head is illiterate, then their wards have poor chances to complete secondary grade. This is mainly because household head's education not only determines his/her perception about education,

but also critically determines the affordability to spend on education. Studies show that drop-outs are disproportionately high from the lower income quintiles (Lewin 2011). NSS 71st round also corroborates the same. According to this data, more than 54% student dropped out without completing secondary grade either due to financial constraints or they had to engage with other economic or domestic activities. Thus, to retain the enrolled students within the system, the government has to reduce the out-of-pocket expenditure incurred by households. Expanding access to poorer households may mean that even modest fees are unaffordable (Lewin and Caillods 2001). Further, private providers are unlikely to grow to provide secondary education to the poorest sections. Most growth will, therefore, be in government or government-aided schools, and government will remain the provider of the last resort. Tilak (2008) argues that affordability of higher levels of participation is really a State-level issue since it is the States that formally have the responsibility for delivering most secondary schooling. This implies a huge government allocation needs to be made towards this sector. Lewin (2011) estimated that India has to increase the allocation by about two per cent of GDP or more for secondary education, which is way above what it spends currently for secondary education.

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