

Title: Determinant of school dropouts in India: A study through survival analysis approach

Abstract

The present study sheds light on important determinants of school dropouts in India. Using the 75th round of NSSO data, it is observed that around 74 percent of population aged 18 years and above have dropped out from school before reaching 12th standard. This level is substantially high among female population, rural sector, and marginalized community, which is quite prominent at primary and middle level of education. This study uses retrospective approach to find the factors responsible for school dropouts. Therefore, cox proportional hazard model is used, which depicts that the risk of school dropouts is high among rural female population, Muslim-OBC, and Hindu-ST caste groups. Further, it is also observed from the model that government school children are in more risk of school dropouts. Furthermore, the major risk is attributed to those who are not interested in studies, have financial issues, engaged in economic and domestic activities and unable to cope up/failure in studies. Among female population, marriage is an important factors of school attrition. Therefore, special attention is needed, to improve the quality as well as quantity of education by creating school infrastructures as well as constructing enough number of schools especially in rural area.

Keywords: School dropouts, Cox proportional hazard model, Survival, India

Background

Education has been a well-documented crucial indicator for human development, contributing to the welfare of people considerably by increasing remuneration and living conditions through boosting capabilities and self-determination. Parental education also shapes the welfare of future generations through intergenerational communication, as greater the level of education, higher is the chance of the child being better educated and healthier (Agrawal, 2014; Dreze & Sen, 2002). Notable strides have been made by the developing economies towards universal access to education (Barro & Lee, 2013), however, it becomes a farfetched dream for those countries where learning crisis is considered as a serious issue (Nakajima et al., 2018). The efforts made to lessen the dropout rates have been prioritised, because of the well-known fact that educational attainment is directed towards constructing developmental trajectories at early stages of life (Marphatia et al., 2019; Prakash et al., 2017). Despite of these recent efforts, there is still paucity of comprehensive understanding and inaccessibility of education which preceded subsequent socio-economic and health related negative repercussions. Substantial studies highlighted how school attrition is associated with widening of gender inequality (Kugler & Kumar, 2017; Marphatia et al., 2019; Prakash et al., 2017; Warner et al., 2012); severe poverty and starvation (UNESCO, 2014); early child marriage (Gouda & Sekher, 2014; Hallfors et al., 2011; Raj, 2010); increase in partner violence (Ackerson et al., 2008; Hindin et al., 2008); discouragement of girls' participation combined with household and economic roles (Marphatia et al., 2019; Patton et al., 2016; Prakash et al., 2017), and further effects the earning capacity (Hoddinott et al., 2011; Maluccio et al., 2009) which in returns hampers the life-long autonomy and economic growth of the country. Nonetheless, in a developing nation like India, gender disparity persistent among females of marginalised sections cut across caste, religion, class, and regional boundaries (Shah, 2011; Varughese & Bairagya, 2020). High trends of attrition can be seen among those from low-income households, rural sector, low caste status and Muslim families (Bhaumik & Chakrabarty, 2013; UNESCO, 2017; UNICEF, 2014a; Varughese & Bairagya, 2020). These marginalised population groups are

facing certain impediments in accessing government benefits and schemes designed to address poverty elimination and promote girl child school attainment (UNESCO, 2017).

Evidently, school dropout is associated with biological and health markers which includes maternal and child health (Arthur et al., 2013; Chowdhury et al., 2021), child mortality (Ghosh, 2012), incidence teenage pregnancy (Baird et al., 2012; Duflo et al., 2015), fertility rates (Arthur et al., 2013; Prakash et al., 2017), childbearing intentions (Chowdhury et al., 2021; Marphatia et al., 2019), HIV infection (Baird et al., 2012) and risk of diseases (Marphatia et al., 2019). To overcome these socio-economic and health ramifications, Sustainable Developmental Goals (SDGs) have emphasized on girl's education especially at the primary level of schooling. Nevertheless, in India, acquisition of education is poorly understood resulting in high proportion of dropout rates among female counterparts and rural areas, which builds a barrier not only for school progression but also in achieving SDGs. For examples, the dropout is estimated around 11.9 million at primary and secondary school with highest proportion being female children (UNICEF, 2014a, 2014b). According to National Family Health Survey (2015-16), there has been a marked decline in school attendance rates from 90 percent at primary schooling to 78 percent at lower secondary schooling and approximately 58 percent at upper secondary schooling (International Institute for Population Sciences (IIPS) and ICF, 2017). Several steps have been taken by the Indian government to promote universal and mandatory education until secondary level and programmes have been specially designed to encourage girl child education (MoSPI, 2015; Nakajima et al., 2018). Although the enrolment has rapidly amplified but necessary actions are required to eliminate the factors responsible for high dropout rates (Nakajima et al., 2018). Empirical studies have pointed out numerous factors accountable for school attrition in India. At first, the school related factors are spotlighted such as institution infrastructure, availability of female teacher, adequate of toilet facility and most importantly distance from school (Agrawal, 2014; Chatterjee et al., 2018; Gouda & Sekher, 2014; Siddhu, 2011), which are pressing issues responsible for low quality of education. While social norms and practices are also the key players hindering the enrolment rates (Gouda &

Sekher, 2014; Maitra & Sharma, 2009; Prakash et al., 2017; Prakash, 2008). In addition, social and financial status of the children are correlated with forced attrition from school despite of their keen interest in education (Gouda & Sekher, 2014; Kishore & Shaji, 2012; Prakash et al., 2017). Besides, it has also been observed that parental education status is a crucial positive indicator that promotes school enrolment of their children (Bose, 2012; Maitra & Sharma, 2009; Marphatia et al., 2019; Nakajima et al., 2018). The aforementioned studies have given the glimpse of school dropout in India using those children who were currently attending school. The present worked have also emphasised on school dropouts in India with special attention to social and school related characteristics. Deviating from the previous studies, the paper has used the retrospective approach to apply survival analysis for school dropout. Unlike previous studies, the present analysis includes duration of schooling, which provides the time point at which the risk of dropout is high. Moreover, duration of schooling is an important indicator of time event in the study for purpose of performing survival analysis. Latest dataset has been employed considering the age-group 18 to 35 years who have presently completed their educational level to rationalize the major factors attributing to school dropout in India.

Research design

Data source

The study utilizes unit level information from household surveys conducted by the National Sample Survey Organisation (NSSO) in India. The social consumption-education schedule of NSSO is an essential source of data providing the information several educational indicators such as literacy rate, attainment rate, dropout rate, incentives received by students and expenditure incurred on the education. This data plays a key important role for planning and policy formulation which is used by various government organizations, academicians as well as researchers and scholars. The present study focuses on the 75th round of NSSO data.

The NSSO survey follows multistage stratified sampling design, where census villages in the rural area and urban frame survey (UFS) blocks in the urban area serve as the first stage units (FSUs). Further,

the households in both rural and urban areas are the ultimate stage units (USU). For larger FSUs, the sampling is done by selecting two hamlet-groups (hgs)/ sub-blocks (sbs) from each rural/urban FSU.

The NSSO data provides the information of both current and completed levels of education for all the population. This data also gives the particulars of population (aged 3-35 years) who are currently not attending school/college such as ever attended school, age at first enrolment in school, level of last enrolment, type of education of the course last attended, whether completed the level last attended, age when last attended, type of institution last attended and reasons for never enrolled/ currently not attending school/college. The present study has utilized the aforementioned information for the analysis.

Methodology

The current study focuses on the prominent factors responsible for school dropouts in India. In this study, population aged 18-35 years are selected who have ever attended school/college but currently not attending. Following are the description of outcome and predictor variables included in the study.

Outcome variable

The outcome variable is school dropout, including population aged 18-35 years who have dropped out from school at any level before reaching 12th standard. Therefore, those population who are dropped out coded as 1, and 0 otherwise.

Predictor variables

Previous research suggest that dropout is influenced with factors belonging at household level, school level and geographical level. Household level factors include parent's education, household size and household income. School level factors include school infrastructure, type of school and distance of schooling. The geographical factors include place of residence and region. As NSSO data does not have the information regarding parent's education, so household head's education is taken as proxy. Whereas for household income, the MPCE quintile is constructed using household consumption expenditure information. School infrastructure related information is not available in NSSO data, so it is dropped from analysis. Therefore after considering all the required information the selected variables are gender (male, female), sector (rural, urban), caste groups (scheduled tribe, scheduled caste, other backward

class (OBC), and others), religious groups (Hindu, Muslim, Christian, and Others), MPCE quintile (Poorest, Poorer, Middle, Richer, and Richest), household size (less than 5 members, more than equal to 5 members), type of institution (government, private), and social groups (OBC-Hindu, OBC-Muslim, ST-Christian, and ST-Non Christian), Education of the household head (No schooling, Less than 5 years of schooling, 6-10 years of schooling, and more than 10 years of schooling). In addition, dummy variables of the major reason for not currently attending are also included as predictor such as 1. Not interested in education, 2. Financial constraint, 3. Engaged in domestic activities, 4 Engaged in economic activities, 5. School is far off, 6. Unable to cope up/ failure in studies and 7. Marriage (only for female population). The states are categorized in six regions, North (Jammu & Kashmir, Himachal Pradesh, Punjab, Chandigarh, Uttarakhand, Haryana, Delhi, Rajasthan), Central (Uttar Pradesh, Chhattisgarh, Madhya Pradesh), East (Bihar, West Bengal, Jharkhand, Odisha), West (Daman & Diu, Dadar & Nagar Haveli, Gujarat, Maharashtra, Goa, Lakshadweep), North-East (Sikkim, Arunachal Pradesh, Assam, Meghalaya, Manipur, Tripura, Nagaland, Mizoram), and South (Andhra Pradesh, Telangana, Karnataka, Kerala, Tamil Nadu, Puducherry, Andaman & Nicobar).

Statistical Analysis

The study has used retrospective approach, to explore the potential factors associated with school dropout. For this purpose, cox proportional hazard model is employed. The time event for this model is the duration of schooling, which is calculated using age at first enrolment and age when last attended school. The failure event for the model is the dropout at any level before reaching 12th standard. Population is considered right censored if they completed education 12th standard or above.

$$T \text{ (Duration of schooling in years)} = \text{Age at first enrollment} - \text{Age when last attended}$$

The Cox proportional hazard model is given as:

$$h_i(t) = \exp(\beta' x_i) h_0(t),$$

where;

x_i = is vector representing the set of values of the explanatory variables for the i^{th} individual.

β = represents the vector of unknown regression coefficients, and

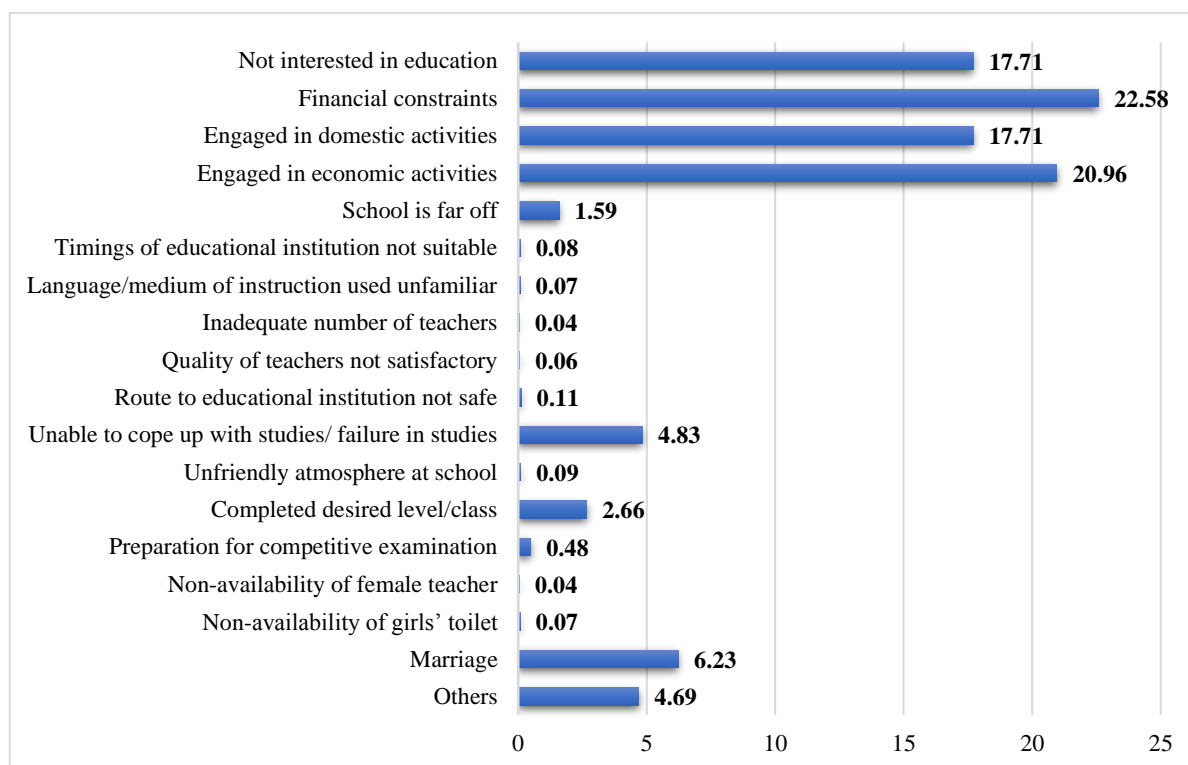
$h_0(t)$ is the hazard function for an individual for whom $x=0$, this function known as basic hazard function.

In the analysis two models are fitted, first model includes only socio-economic and demographic predictors while second model involves predictors like household size, type of institution and major reasons for dropout. The fitted model is presented using cumulative hazard function curve by different combinations of predictors such as gender & sector, sector & type of institution, religion & caste-groups, and type of institution & Scheduled caste. The analysis is performed in STATA 16 software.

Results

Figure-1 quotes various reasons of dropout, which negatively impact the acquisition of basic learning in India. The results confirm that multiple reasons play a significant role in escalating dropout level, however, the most pronounced reason is financial constraint. Consequently, this paucity of access to credit leads to engagement in economic activities or child labour reflecting stark socio-economic disparity and inadequate knowledge of accruing education. Moreover, not interested in studies is a major contributor in amplifying dropout from school. Henceforth, role of educational quality and school quality are likely to matter. Seemingly, engagement in household chores and marriage intensifies the risk of dropping out of school. In case of India, females are more likely to be affected with engagement in domestic chores and marriage due to prevailing huge gender discrimination in terms of educational outcomes. School dropout phenomenon can also be explained based on the reasons like school is far off and unable to cope up with studies.

Figure-1: Main reasons for dropout in India



From table – 1, it can be illustrated, around 73.65 percent of the population have dropped out before achieving 12th standard educational level. The leading socio-demographic background characteristic in shaping the dropout behaviour is sector. The difference of about 22 percent reveals persisting educational gaps in rural and urban areas. Although the gender difference has declined considerably, but it has not been eliminated over the years. Markedly, scheduled caste, scheduled tribe, and Muslims have high risk of dropping out which has negative repercussion on acquisition of education. Further, MPCE quintile and dropout are indirectly related to each other, dropout decreases with the increase in quintile. Rates are also driven by household size and social groups which extensively replicates educational gaps among various socio-demographic sections. Additionally, type of institution contours stark difference in government and private schools i.e., nearly 39 percent, likely to be another reason for high dropout rates due poor quality of learning and school. Furthermore, distance from school, inability to cope up with studies and financial constraints play a crucial role in accelerating the dropout rates. The school attrition varies greatly by region, Central, East and North-Eastern regions have highest percentage of dropout compared to other regions.

Table-1: School dropout of population aged 18 to 35 years, NSSO 75th round

Covariates	Percentage	Total Population
Gender		
Male	71.62	52,299
Female	75.91	46,911
Sector		
Rural	82.79	58,862
Urban	60.32	40,348
Caste groups		
Scheduled Tribe	81.72	15,153
Scheduled Caste	81.62	16,749
Other Backward Class	75.00	39,035
Others	62.75	28,273
Religious groups		
Hindu	72.14	72,550
Muslim	82.15	15,000
Christian	71.90	7,014
Others	72.50	4,644
MPCE quintile		
Poorest	85.39	20,700
Poorer	79.39	21,429
Middle	74.50	17,998
Richer	68.57	19,455
Richest	59.27	19,628
Education of the household head		
No schooling	87.39	21,999
Less than 5 years of schooling	86.00	19,737
6-10 years of schooling	72.02	29,677
More than 10 years of schooling	22.73	2,452
Household size		
Less than 5	70.90	36,898
More than 5	75.28	62,312
Type of institution		
Govt.	81.71	78,679
Private	42.75	20,527
Major reasons for dropout¹		
Not interested in education	92.55	14,217
Financial constraints	87.85	18,908
Engaged in domestic activities	84.10	15,626
Engaged in economic activities	67.25	22,494
School is far off	95.17	1,243
Unable to cope up/ failure in studies	93.60	3,826
Marriage	72.13	6,316
Social groups²		
OBC-Hindu	73.59	30,557
OBC-Muslim	81.90	7,392
ST-Christian	75.60	5,737
ST-Non-Christian	84.45	9,416
Regions		
North	69.70	18,828
Central	75.01	19,725

¹ Major reasons for dropouts are different dichotomous variables so the whole total will not be 99,210.

² Social groups are different dichotomous variables so the whole total will not be 99,210.

East	83.18	16,531
West	72.40	12,562
North-East	80.87	14,935
South	66.44	11,048
Total	73.65	99,210

Note: Govt.= Government

Apparently, percentage distribution in table – 2 demonstrates that nearly one-third of the population dropped out after secondary level of schooling which has a detrimental effect on school progression. It has been observed that females are more likely to be dropped out after completion of primary level of schooling. Again, in rural areas, students generally discontinue schooling after primary and middle level of completion, whereas in urban areas a marginal difference can be seen in terms of secondary level completion. Further, the percentage of dropout after primary and middle level of schooling is quite high among schedule caste, conversely, the dropout after secondary schooling moderately high among others caste group. Muslims are detected to be the key contributor in increasing the percentage at primary and middle level of schooling compared to other counterparts. Strikingly, the dropout considerably upsurges for Christian community after completion of secondary level of schooling. These obvious results imply unequal educational distribution among socio-demographic groups of the country. Next, as per the household MPCE quintile, percentage distribution for primary and middle level is substantially high in poorest category, while in richer category it turns out to be secondary level of schooling. Similarly, type of institution has prominent effect in shaping the dropout behaviour and it intensifies in government schools at primary and middle level completion. In other words, quintile and type of institution is likely to be one of those factors which ceases and impacts the acquisition of basic learning in the country. Concerning ST-Non-Christians have negative influence on educational outcomes, hence upsurges the dropout percentage at primary and middle level completion. When it comes to dropout reasons, the percentage is driven by distance from institution after completing primary and secondary school, although unable to cope up with studies have negative upshots on dropout after secondary level of schooling. School attrition by education level suggests that central region have highest dropout at primary and middle level compared to other regions.

Table-2: Percentage of dropout (population aged 18 to 35 years) by level of schooling, NSSO 75th round

Covariates	Primary	Middle	Secondary	Higher Secondary
Gender				
Male	13.37	25.05	33.84	27.74
Female	17.97	25.63	32.32	24.08
Sector				
Rural	17.26	27.09	32.88	22.78
Urban	12.31	21.89	33.56	32.24
Caste groups				
Scheduled Tribe	18.05	27.85	33.18	20.92
Scheduled Caste	19.23	27.97	30.87	21.93
Other Backward Class	15.18	25.01	33.55	26.26
Others	11.80	22.13	34.03	32.04
Religious groups				
Hindu	15.25	25.08	33.03	26.64
Muslim	19.11	28.12	32.07	20.71
Christian	11.56	23.82	37.75	26.87
Others	14.16	21.58	31.08	33.19
MPCE quintile				
Poorest	20.19	28.93	32.35	18.54
Poorer	17.16	27.24	32.84	22.76
Middle	15.18	24.80	33.72	26.30
Richer	12.46	22.88	34.15	30.51
Richest	10.63	20.74	32.73	35.90
Education of the household head				
No schooling	20.14	29.87	31.09	18.90
Less than 5 years of schooling	25.91	26.79	28.29	19.01
6-10 years of schooling	6.86	22.64	38.01	32.49
More than 10 years of schooling	2.99	9.35	28.69	58.96
Household size				
Less than 5	16.11	24.68	33.61	25.61
More than 5	15.30	25.70	32.83	26.18
Type of institution				
Govt.	17.34	27.50	32.93	22.23
Private	4.05	11.06	34.29	50.60
Major reasons for dropout				
Not interested in education	23.08	28.66	30.06	18.21
Financial constraints	18.26	28.21	31.93	21.60
Engaged in domestic activities	17.91	28.70	31.62	21.78
Engaged in economic activities	10.27	22.27	35.05	32.42
School is far off	24.29	31.76	26.13	17.82
Unable to cope up/ failure in studies	10.89	23.81	47.15	18.14
Marriage	5.68	18.10	37.34	38.87
Social groups				
OBC-Hindu	14.05	24.64	34.12	27.19
OBC-Muslim	20.29	27.48	30.79	21.44
ST-Christian	11.85	25.07	38.21	24.87
ST-Non-Christian	21.41	29.35	30.46	18.78
Regions				
North	15.09	24.61	27.97	32.32
Central	19.54	30.34	26.01	24.11
East	19.33	28.65	35.20	16.82
West	12.27	22.75	35.00	29.97

North-East	13.67	26.05	37.48	22.80
South	11.40	17.24	39.56	31.81
Total	15.59	25.33	33.11	25.97

The findings (table – 3) of cox proportional hazard model depicts, dropout level is influenced by gender. This is true for females who are more likely to be dropping out of the school compared to male counterparts ($p < 0.01$). The model indicates that the rural sector is associated with surge in dropout behaviour. This association turns out to be weaker for urban areas than that of in rural areas. Further, the hazard risk of dropout noticeably dwindled among other caste groups in contrast to schedule tribe ($p < 0.01$). On the other hand, Muslim community have higher risk of dropout compared to Hindu community ($p < 0.01$). The hazard risk significantly attenuates with the increase in MPCE quintile; however, it intensifies with the increasing household size. Those who have pursued education from private school less likely to be dropping out than those to have pursued from government schools ($p < 0.01$). The pronounced negative effect on dropout can be seen from the reasons namely not interested in studies, distance from school, unable to cope up with studies and financial constraints. Nevertheless, marriage demonstrates substantial impact on dropout especially for female counterparts. Below table exhibits two models, model-1 includes socio-economic and demographic characteristics, while in second model other predictors are added. As observed from the results, model-2 reflects almost same risk ratio as model-1 even after including additional predictors.

Table-3: Result of cox proportional hazard model for school dropout (population aged 18 to 35 years), NSSO 75th round

Covariates	Model-1	Model-2
Gender		
Male		
Female	1.184*** (1.168 1.202)	1.170*** (1.151 1.191)
Sector		
Rural		
Urban	0.530*** (0.523 0.540)	0.729*** (0.717 0.741)
Caste groups		
Scheduled Tribe		
Scheduled Caste	0.985 (0.96 1.013)	0.971** (0.944 0.999)
Other Backward Class	0.800*** (0.781 0.821)	0.866*** (0.844 0.887)
Others	0.630*** (0.614 0.648)	0.746*** (0.686 0.723)
Religious groups		
Hindu		
Muslim	1.522*** (1.493 1.554)	1.341*** (1.303 1.381)

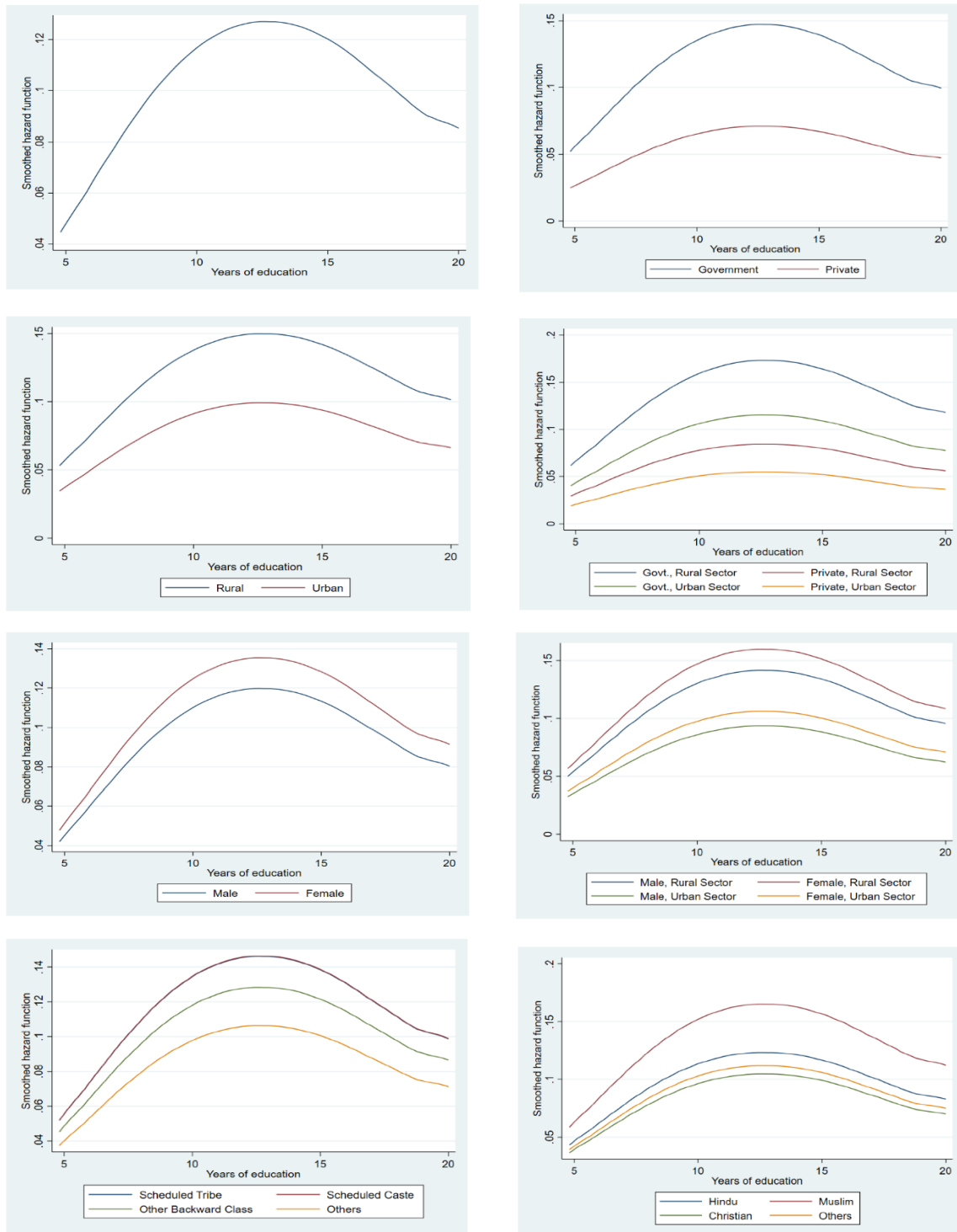
Christian	0.706*** (0.684 0.731)	0.982 (0.909 1.061)
Others	0.864*** (0.835 0.896)	0.935*** (0.900 0.972)
MPCE quintile		
Poorest		
Poorer	0.830*** (0.814 0.849)	0.859*** (0.841 0.877)
Middle	0.687*** (0.672 0.703)	0.750*** (0.733 0.768)
Richer	0.585*** (0.573 0.599)	0.676*** (0.660 0.692)
Richest	0.455*** (0.446 0.467)	0.565*** (0.550 0.581)
Social groups		
OBC-Hindu		1.001 (0.921-1.085)
OBC-Muslim		0.968 (0.886-1.057)
ST-Christian		0.927* (0.850-1.010)
Education of the household head		
No schooling		
Less than 5 years of schooling		1.079*** (1.058 1.100)
6-10 years of schooling		0.718*** (0.705 0.732)
More than 10 years of schooling		0.226*** (0.221 0.241)
Household size		
		1.015*** (1.012 1.019)
Type of institution		
Govt.		
Private		0.467*** (0.457 0.478)
Major reasons for dropout		
Not interested in education		3.950*** (3.830 4.074)
Financial constraints		2.983*** (2.895-3.074)
Engaged in domestic activities		2.859*** (2.771-2.950)
Engaged in economic activities		2.085*** (2.023-2.149)
School is far off		3.373*** (3.167-3.592)
Unable to cope up/ failure in studies		3.065*** (2.940-3.196)
Marriage		1.896*** (1.823-1.973)
Regions		
North		
Central		1.352*** (1.315-1.389)
East		1.274*** (1.241-1.306)
West		1.173*** (1.143-1.203)
Northeast		1.056*** (1.027-1.087)
South		1.082*** (1.053-1.111)

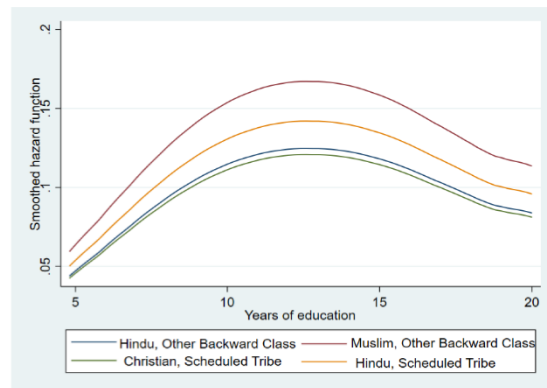
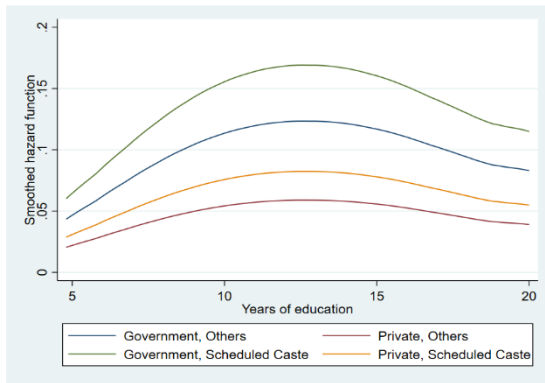
Note: - *** significant at 1% level; Log likelihood (model-1: -811359.37, model-2: -800553.56), ST-Non-Christian was omitted

The figures exemplify hazard function (figure 2) of school dropouts, indicating higher risk at 10 to 15 years of education which further elucidate, roughly people are dropping out between 8th to 10th standard. Besides, stark differences can be picturized between gender, sector, caste groups, religious groups, and type of institutions. Graphically, gender and sector-wise hazard ratio shows tendency of dropout is quite high among female population residing in rural areas compared to other counterparts. Indeed, as expected the dropout intensifies among those who are attending government school in rural areas, while its marginal for those attending private schools in urban areas. Correspondingly, those Muslims who are categorized under other backward class status are the most underprivileged group when it comes to

acquisition of education. Further, the risk of attrition is substantially high among those attending government school and classified under scheduled caste portraying detrimental effect of caste status on educational attainment in India.

Figure-2: Hazard ratio of school dropout for population aged 18 to 35 years





Discussion

Over the years India has accomplished remarkable progress in improvising literacy, however the phenomenon of dropouts is still a black spot in educational achievement. Evidently, about three-fourth of the population have dropped out before attaining 12th standard level education. Additionally, out of these dropouts around one-third of them have left the school at secondary level of education which is supported by the findings of hazard models stating the risk of dropout is very high between 10th to 15th years of education. These figures demonstrate that India has achieved universal level of primary education to a certain extent, but the success of achieving secondary level of education is even so a far-fetched dream. Present study illustrates the major attributors for school dropouts in India are social characteristics, geographical variation, economic condition, and type of institution.

The attainment of education varies by gender, caste-groups, and religion implicating the struggle of country like India in achieving education for all. Current figure reveals that school dropout of female children is still highest compared to male counterparts, and the risk of getting dropped out from school intensifies in rural areas. Further, the extent of school dropout among female is high at primary and middle level in comparison to male children. NSSO data suggests that among the major reasons of female school dropouts the most standout causes are engagement in domestic activities, marriage, and distance from school (Appendix Figure-4). Discrimination in terms of education attainment among female children is very common in India and the norm of son preference is a serious attributing factor behind this disparity (Bose, 2012; Kugler & Kumar, 2017; Prakash et al., 2017). In Indian household, the daughters are considered as “*Paraya Dhan* (other’s wealth)”, thus investing in their education is

assumed to be unfruitful compared to male children (Gandhi Kingdon, 2002; Jere R. Behrman et al., 1999).

Being in lower level of social class has a negative implication on educational attainment and it also accelerates the risk of school dropout. For instance, it has been observed from this study that more than 80 percent of population belonging to ST and SC groups dropped out of school before completing 12th standard. Further, the hazard model also depicts the similar findings after controlling the school and household level factors. The study by Kugler and Kumar (2017); Prakash et al. (2017), have mentioned the same in their article that there is a great variation in access to education among ST and SC population compared to other caste hierarchy. However, in extension to this finding, the present study also highlights that the risk of school dropout is very high among OBC-Muslims and ST-Hindu population. Moreover, the tendency of school attrition among Muslim population alone is quite stark compared to other religious groups (Gouda & Sekher, 2014).

The geographical variation in terms of school attrition is quite evident in India. The rural part is having a greater risk of school dropout especially at primary and middle level as compared to urban counterpart. As mentioned in previous studies that in rural India the likelihood of low educational attainment is characterised by poor physical infrastructure of school, lack of available school nearby, teaching quality, teacher absenteeism and teacher student ratio (Agrawal, 2014; Chatterjee et al., 2018; Kugler & Kumar, 2017; Vaidyanathan & Nair, 2001). In addition, the rural area is dominated by agricultural activity, so it is more likely that children will be dropped out from school during the harvesting season (Ramachandran, 2009). Further, agrarian households tend to have larger family size, but due to crunches of financial resources only selected children get the benefit of continuing education, while rest of them are expected to serve in household activity or to look for other economic opportunity. In the event of familial responsibilities, female children are more often supposed to sacrifice their education to engage in domestic activities (Marphatia et al., 2019). Notwithstanding, the regional difference is also observed from the result, Eastern and Central part of India are having highest risk of school dropout compared to northern region. Eastern region is comprised of Jharkhand, Odisha, Bihar, and West Bengal, most of these states are having highest proportion of rural population which may be the cause of high risk of

school dropout. Whereas, Central region includes Uttar Pradesh, Madhya Pradesh, and Chhattisgarh, which constitute prominent proportion of marginalised and backward communities who are lacking in resources and importance of educational awareness that might have led to high school dropout in these regions (Agrawal, 2014; Chatterjee et al., 2018; Ramachandran, 2009).

Efficient educational delivery through type of institutes (say private or government), also manifest school level attrition. This pronounced effect can be easily seen through the analysis that in comparison to government institution the risk of attrition is 50 percent less in private schools. Additionally, stark differences can be observed in primary and middle level of schooling. The scenario spotlights that till today there is paucity of infrastructure, efficient teacher-student ratio, and quality of teaching in government institutions (Agrawal, 2014; Vaidyanathan & Nair, 2001). Further, the picture become quite severe among government institutions situated in rural areas. The poor deliverability government schools can be exemplified in children's reason for dropout stating they are either not interested in education or not able to cope with studies. On the other hand, private institutions in India have become a synonym of quality education encouraging economically capable sections to prefer private institution instead of government ones (Singh, 2015). Apparently, hazard model also underscores that, as MPCE quintile increase the risk of dropout diminishes. Furthermore, the education of household head also plays a dominant role in defining school dropouts because having educated members in family encourages future generation to pursue higher education.

In Indian society, principle of hierarchy and division is deep rooted which makes it really challenging to achieve the educational strides (Velaskar, 2010). To cope-up with these challenges several programs and policies have been launched by the ministries like Right to Education bill, Sarva Shiksha Abhiyan, and Mid-day meal scheme. However, access to education is still a matter of concern reflecting great discrepancy within geographic regions and distinguishable sub-groups namely ST, SC, Muslims, and female population (Asadullah & Yalonetzky, 2012; Lewin, 2011; Wu et al., 2007). Further, growing income disparity also triggers gender and caste related discrimination which has a detrimental effect on educational attainment. Keeping this in mind the slogan of "education for all" is still an implausible dream and it will take significant amount of time to achieve this goal. Although, Government of India

has currently launched New Education Policy 2020 after a period of 34 years. To address the major issues of previous programmes and policies, they have primarily focused on 5 main pillars equitability, affordability, quality, and accountability. This policy is envisioned to achieve the goal of “better quality of education for all” (Kumar et al., 2020).

Conclusion

The study provides clear evidence that school dropout is persisting issue in India which is affecting the progress in educational attainment. Further, discrimination in terms of education is still prevalent in our society which is quite evident among female and marginalized group of population. In addition, geographical and economic variation in educational attainment reflects the in-efficient delivery of government institution. Therefore, to reduce the school dropouts in India, focus should be made on better school infrastructure, adequate toilet facilities and good quality of education especially in government institutions. Further, specific program should be implemented which can increase the awareness regarding the importance of education among financially incapable and marginalised population. Besides, setting up well-equipped government school in every corner is essential so that most of the children can get quality and affordable education.

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Appendix

Figure-3: Major reasons for dropout among male population

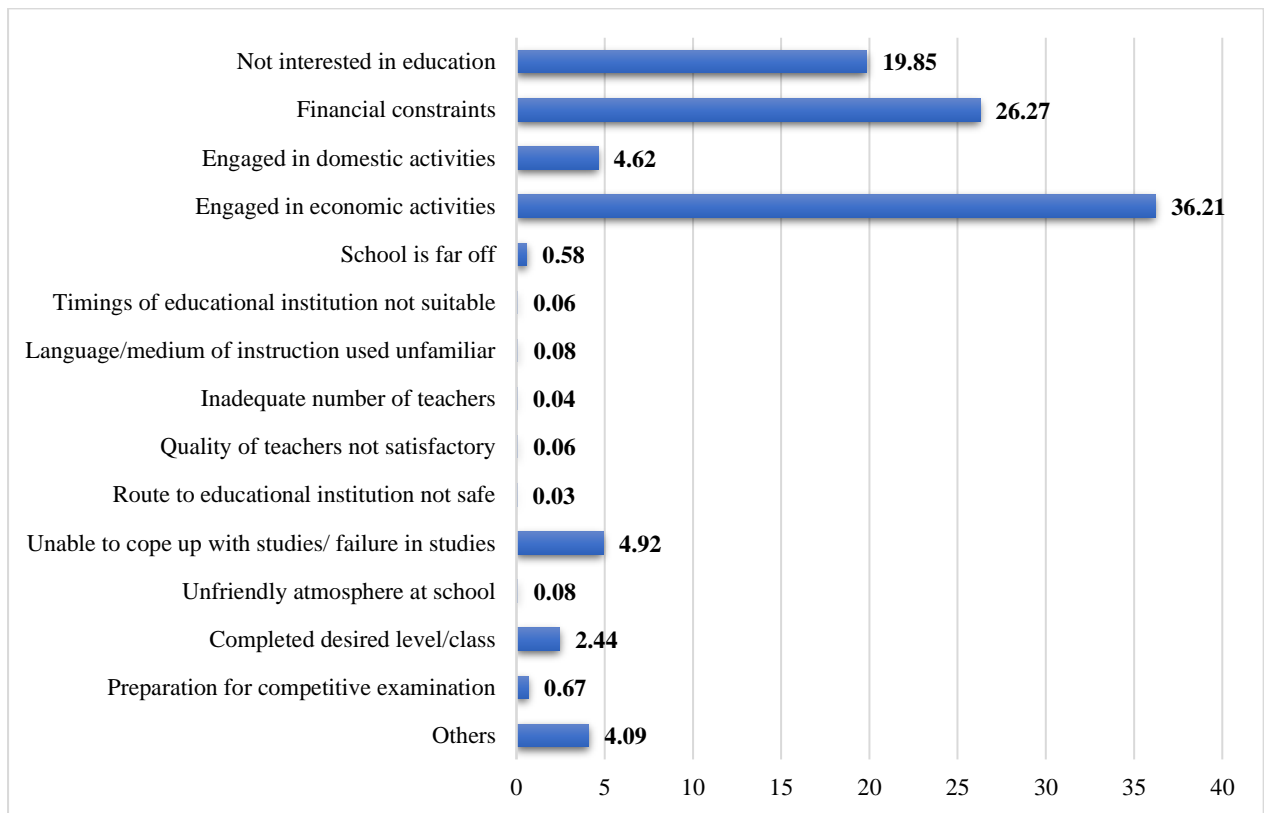


Figure-4: Major reasons for dropout among female population

