CHAPTER-IV

Conceptual Framework and Methodology of the Study

4.1 Conceptual Framework

The development of concepts used for analyzing the determinants of household demand for children's schooling is guided by (1) Economic theory (2) Socialization theory (3) Life Span Development Approach and (4) Other perspectives/theories. Brief descriptions of these theories are given below:

Economic theory: This theory explains that the amount of family resources allocated to children, the nature of these resources, and the timing of their distribution influences the educational attainments of children in the family. Children are also affected by choices made by parents regarding such things as the number of their siblings, the type of neighbourhood in which they grow up and the number of location moves and family structure changes.

Socialization theory: Sociologists and developmental psychologists have contributed to the literature on children's attainments in ways that complement the work of economists. This theory stresses the possible effects of role models and socialization during childhood and adolescent years on achievements as young adults. The primary role models are parents and older siblings and their behaviour (e.g., work, fertility), aspiration and values (e.g., educational expectations) are taken to affect directly the cognitive and social-psychological development of children. The implications of this perspective are consistent with the economist's observations with respect to the
potential effects of parental education, labour supply, and fertility choices on children's attainments.

The Life-Span Development Approach: It emphasizes that development occurs over an individual's life, and that events impinging on a person have different effects depending on when they occur, the length of time since the occurrence of the event, the experiences attempts by empirical analysts to identify the different effects of events on that occur subsequently, and the historical context in which it occurs. For example, the divorce of parents may affect children quite differently depending on the age of the child, the nature of the separation (accommodating or antagonistic), the subsequent remarriage of one or both of the parents, or the time spent with the absent parent. This attention of the timing of events has supported children's attainments depending on when during childhood they occur.

Other perspectives: A variety of other hypotheses regarding the determinants of children's development and attainments are available in the literature which supplement the analytical framework of this study. One of the most important of them is the "working mother hypothesis". The working mother hypothesis suggests that mother's absence from home may be a source of development problems of children, manifested on reduced achievements in a variety of dimension. Alternatively; mother's work contributes income to the family which may enhance the children's future prospects.

Welfare culture hypothesis/perspectives: The welfare culture hypothesis emphasizes the harmful effects that parental dependence on public assistance may have on children's aspirations, attainments and on their capacity for independent actions. The
welfare culture hypothesis is related closely to the “culture of poverty” model: both the frameworks emphasize the influence of state of poverty or welfare dependency on personal adequacy, independence and self esteem. Guided by these conceptual framework of studies based on the economic theory, socialization theory and a variety of hypotheses on the process of educational attainments of children, researchers have also focused on different children’s outcomes. However, educational attainment is perhaps the most common and most basic outcome on which researchers have concentrated on the presumption that schooling is an important contributor to the variety of subsequent behavior and attainments.

As with analytical frameworks and outcomes of interest, researchers emphasize a variety of parental socio-economic background characteristics and attainments in analyzing the educational transmission process. Education to education and occupation to occupation studies are common in the socio-demographic literature, although the literature also emphasizes the impact of parental income on a variety of child outcomes. Almost all studies in this particular field make allowance for demographic background characteristics such as race, ethnic background, religion, region, birth position and number of siblings. The literature explains the association between schooling achievements of children and family size with the help of quantity-quality trade-off hypothesis and dilution model.

Underlying the empirical analysis in this work is a conceptual model of parental household decision-making regarding children’s education. Household schooling decisions are determined by an interaction of social, cultural and economic factors working through power relations within the household. The economic framework for analyzing the question of ‘what determine the household demand for children’s
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education?" is generally provided by standard demand and supply considerations. There is a large literature on education in less developed countries which seeks to quantify the rate of return to an individual's investment in education. This human capital approach to studying education focuses on the market determined value of education as the principle regulator of individual demand for education. However, there is an equally important non-market component to the demand for education, especially for children and young adults. These non-market factors manifest themselves through household characteristics that affect the time and opportunity cost of schooling for household members (Deolalikar, 1993; Tansel, 1993; Singh, 1992). Theoretical analyses of the determinations of schooling highlight how individuals or households make maximizing decisions about schooling in light of overall resource constraints and opportunity costs for alternative uses of their resources (Backer, 1976, 1981; Mincer, 1974). These approaches have led to considerable insight into demands for schooling. According to this framework, parents as initiators of demand for schooling are the key players in determining schooling outcomes of their children, and therefore, parental income, education, age etc. matter most. Coleman Report (1966) stresses that family characteristics are more important determinants of educational achievements than school quality or teachers' experience. A prominent line of enquiry that sprang from Coleman Report (1966) seeks to promote social policies that foster students' achievement by studying why family background has such a pronounced effect on children's acquisition of human capital (Berhman et al, 1997; Case and Deaton, 1999; Strauss and Thomas, 1995; Glewwe and Jacoby, 1994 and many others).

Among the household characteristics, variables describing parental characteristics or choices are the most commonly used variables in studies of children's educational
attainments. Among these, perhaps the most fundamental economic factor is the human capital of parents, typically measured by the number of years of schooling attained. The human capital of mother is usually more closely related to the educational attainments of the child than is that of the father. Parental completion of high school and one or two years of post secondary schooling are typically found to have a larger effect on children’s schooling than years of parental schooling beyond that level (Haveman, Robert and Barbara Wolfe, 1995). The literature suggests that the parental education and the children’s educational attainments have the following connections: (1) more educated parents make greater investment in children’s human capital. (2) More educated parents in poor households without access to credit may face a trade-off between providing more goods and allocating more time to interacting with their children. (3) More educated parents may receive higher wages and thus may have a higher opportunity cost of time spent outside the work place. (4) Alternatively, parental education may increase the efficiency or effectiveness of the time spent interacting with children (Brown, Philip. H, 2008).

Overbearing poverty is also a major cause of withdrawal of children from schools. In the presence of an extensive child labour market, sending children to work fetches the family some additional income. Thus going to school has an opportunity cost which the parents are unwilling to bear. This is true for the poor families for whom the marginal value of this additional income is very high. As a result, even if the children start going to school, they do not continue for long. It is observed in the study that incidence of poverty in the states of India has significant positive association with Drop-out Rates and significant negative association with Completion Rates (Mukherjee, Dipa, 2005 Bilquees and Hamid 1989). The income level of the family in which a child grows up is, therefore, perhaps the best measure of household poverty
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and the level of economic resources devoted to the child by the parents, and is often included in the studies of children’s educational attainment. However, the family income variable may be rather a crude proxy of the economic resources available to a child. Often family income is recorded only in a single year, and hence it cannot be considered as a correct measure of permanent income. Moreover, it may convey little about family allocation of income to children and fail to capture other economic resources devoted to the child (e.g. parental time allocation). The measurement of this variable varies widely across the studies. A few studies employ either a single year of family income or an average of income over a limited number of years; most employ the ratio of the income level of the family to the income needs of the family, reflecting its size and structure. Some studies used an indicator of family SES (Socio Economic Status) which attempts to summarize the combined effects of a variety of economic resource factors. Education itself can be interpreted as a measure of permanent income, a point that suggests that the full effect of income (education) would, to some extent, include the effects of education (income) (Haveman, Robert and Berbara Wolfe, 1995).

Several additional parental investment factors have been found to have statistically significant and quantitatively large effects on children’s educational attainment, including family structure (e.g., living in a one-vs. two-parent family or whether the family is joint or nuclear in nature) and the extent of mother’s work, the number of geographic moves during childhood, the number of siblings, religiousness, school related parental practices, and the presence of reading materials in the home. Most of the studies find that race is not associated significantly with educational attainment when family income and other background characteristics are included in the models.
The schooling attainment of children is also found to be strongly related to household permanent income indicating that schooling is a normal good and that household are resource constrained in that higher incomes lead to higher schooling attainments (Tansel, Aysit; 2002). A crude measure of the household’s standard of living is also used using information on household amenities and the possession of modern goods. These are used to create an index for representing household’s standard of living. The index from a set of such asset variables is a good proxy for a household’s wealth. It works as well as, or better than consumption expenditure as a proxy for long run household wealth in predicting children’s school enrollment (Filmer, Deon and Lant Pritchett; 1999; Lloyd, Cynthia, B and Ann K Blanc; 1996).

The problem of educational attainment of children has gender dimension. In the economics of education literature, there are two frequently cited explanations of the gender gap in education. First, that gap is due to labour market discrimination against women: if the labour market rewards women’s education less well than men’s (that is, the rate of return to women’s schooling is lower than to men’s), then girls will face poorer economic incentives to invest in schooling than boys. A second major explanation for the gap is that parents treat sons and daughters differentially. The differential treatment may arise either because of son preference, which causes parents to give a greater weight to the welfare of sons, or it may arise because parents value only that part of the return to a child’s schooling which accrues to them personally- and the returns to the daughter’s education are reaped largely by her in-laws’ family. This is compounded by the fact that societal norms in some countries require parents to accumulate a dowry for daughters but not for sons. Thus, girls may lose out in the intra-household allocation of education because of a potentially strong asymmetry in parental incentives to educate sons and daughters. As a result, daughters
will receive less education than sons. However, a decrease in costs of education for reasons such as nearness of schools, other things held constant, will increase parents’ investment in both their daughters’ and sons’ education. The size and the speed of response to such market changes will depend on price and income elasticities of schooling demand (Tansel, Aysit, 1997; Kingdom, Gandhi G; 2002, Hamid, Shahnaz and Rehana Siddiqui; 2001).

The indirect cost of sending children to school is forgoing children’s inputs to household production and to the labour market. In particular, in rural areas time spent in school may be at the expense of housework, or other learning activities such as working at the family farm or business (Tansel, Aysit; 1997). Therefore, the children’s active participation in domestic work and / or work in family farm and also expectation of parents about help in domestic and family farm work from children may have significant impact on the schooling attainments of children.

Another important household factor that is often discussed in the literature of household demand for schooling is the sib size effect. Butcher and Case (1994) documented the impact of siblings on the education of women and men born in the United States between 1920 and 1965. They found that throughout the century women’s educational choices have been systematically affected by the sex composition of her siblings, and that men’s choices have not. Women raised only with brothers have received on average significantly more education than women raised with any sisters, controlling for household size. Hauser and Daphne Kuo (1998) found almost no evidence that the presence of sisters or the share of sisters in the sib ship has affected women’s schooling in the US during the century. Moreover, they found no evidence that the effects of the number of sisters on educational attainment differs
systematically from the effect of the number of brothers. However they observed that regardless of gender and regardless of year of birth, each additional child in a family leads to a modest reduction in educational attainment.

The debate on Quantity-Quality trade-off hypothesis and Dilution model, as referred to in Chapter-II of the thesis, opens a new vista for combating the twin menacing problems of high growth rate of population coupled with low level of literacy rate, so common a problem to a majority of developing countries. Apart from other important socio-economic factors, the choice of educational attainments has been found to be playing a pivotal role in determining the size of households. The important feature is that while preferences for education of children influences household fertility behavior, household fertility behavior may itself determine the educational level of children. The hypothesis is that, both quantity and quality of children enter into parents' consideration and they consciously trade-off between these two- parents desiring quality children will demand fewer number of them and oblivious of quality, will have larger number of children. The dilution model also corroborate the fact that quality of children will be low in households where there are large number of children because of dilution of limited familial resources.

This theoretical perspective provide good framework for research on household demand for children education. The most popular and basic model that guides this type of work is regression models where household and socio-economic variables are arrayed against a dependent variable representing children's education level. Different studies ( Datcher, 1982, Hill and Duncan, 1987; Krein and Beller, 1988; Case and Katz, 1991; Duncan, 1994 and Graham, Beller and Hernandez, 1994) have applied simple OLS method to estimate such regression equations.
4.2 Methodology

The Study is based on the following methodology:-

4.2.1 Data and Sample of the Study

a) The Sample and Data:-

The study is based on primary data and the unit of the study is household. The sample is drawn from the rural-urban areas of the three districts- Cachar, Karimgang and Hailakandi of Barak Valley. The sample units are drawn by following purposive random sampling where the purpose is to cover both the rural and urban areas of all the three districts. As the study focuses on the children’s schooling achievements of Muslim households only, the sample comprises of children belonging to only Muslim households residing in these areas. Therefore, household refer to Muslim households only in the present study. The size of the sample is 338 households- 116 households from Cachar district, 107 from Hailakandi and 115 from Karimganj district. Out of these 338 households, 168 households are from rural areas of these three districts and 170 from urban areas.

The data for the present study is collected through a household survey of selected 338 households. Information pertaining to educational achievements, enrolments, non-enrolments of children belonging to all ages of sampled households are obtained with the help of a structured pre-tested schedule. Data pertaining to education of parents, household income, household assets, parents' gender preferences, their expectations regarding children schooling attainments, children’s help in domestic or farm work
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etc. are also collected in a systematic manner with the help of same schedule through personal interview method.

(b) Basic Model Specification and Analytical procedure:-

Based on theoretical and conceptual framework developed and an extensive review of literature, as in the preceding chapter and section of the study, a large number of variables are identified for the present study that may have considerable effect on the schooling attainments of children and on the process of dilution of familial resources. The list of such variables and their hypothesized effect on schooling attainments of children and dilution of familial resources are discussed below.

1. Average Years of Schooling per Child (ASC):

It represents mean education attained by a child in a family. It is found out by dividing the total years of schooling completed of all children by the total number of children in the family.

2. Number of Children Ever Born (NCEB):

It is the total number of children ever born in a family or to a couple. It includes those who are alive and those who have expired. The variable indicates size preference and also sex bias of the parents. This may also act as a control variable in regression models since larger number of children leads to dilution of familial resources. However, the presence of larger number of children in the family demand higher child care services and as a result, the education of older siblings may suffer, girls being the worse sufferer.
3. Gross Family Income (GFI):

It is the total income earned by the members of a family in a year excluding income earned by the children in the family. This is also hypothesized to have positive impact on the schooling of children. In poor households, per capita income would be small in case of families having larger number of children.

4. Number of Earning Members (NEM):

The inclusion of this variable shows occupation wise income of households, educational level, male and female participation in economic activity, and income disparities among the households of different professional groups. It is hypothesized that if both parents are employed or more family members are earning members, the effect will be positive on educational attainment. However, according to 'working mother hypothesis', there may be negative as well as positive impact of this variable on the educational attainments of the children.

5. Value of Valuable Assets at the Disposal of the Household (ASSET):

The value of valuable assets at the disposal of the household is an indicator of well being of a household in both rural and urban areas of India. It is calculated by taking in to account the prevailing market price of durable goods such as Television, Radio, Land phones, Steel Almirah, Car Motor cycle, Computer, etc. The variable is hypothesized to have positive impact on children’s education. Larger number of children will lead to further dilution of this resource available with the family.

6. Father’s Education in Years (FEDN) and
7. **Mother’s Education in Years (MEDN):**

Mother’s and father’s education levels are also included to account the genetic ability of children as well as complementary home learning that may reduce the cost of schooling in households with better educated parents. Parents’ education may also serve as a predictor of parents’ earning potential that could be invested in schooling. Furthermore, mothers with more education may have increased bargaining power in the household and may choose to allocate more resources toward children and their human capital than would their husbands. Both these variables are hypothesized to have positive impact on the schooling attainments of children.

8. **Education of Grandfather in Years (EDNGF) and**

9. **Education of Grandmother in Years (EDNGM)**

There is a general belief that grandparents’ education has an important positive influence on the education of their offspring’s. Hence, this variable is also included to examine the hereditary influence on educational attainment.

10. **Number of Children below the Age of Five (NCB5):**

The existence of young children below the age of five in a household may affect the schooling achievement of older siblings, if the number of younger children under five years is larger and if both the parents are employed in government sectors or wage earners. Besides, the existence of greater number of children below the age of five implies that older siblings would also be a lesser age and would be studying at lower standard. This would undoubtedly find reflection in the lower value of mean
education. Hence; this variable is also taken as explanatory variable in the study. For this reason, the variable may be considered as a control variable. However, larger number of children below the age of five in the family means more child care responsibilities for older siblings, particularly girls, and hence the variable is likely to exert negative impact on the schooling attainments of the children.

11. Family Structure (FST):

Family structure refers to the joint family system or nuclear family system. These two types of families are still prevailing in rural and urban areas of Muslim families. This variable is included as explanatory variable in this study. It is hypothesized that joint family system will exert negative influence on the demand for children’s education as the income of the family is to be divided among the greater number of children. Nuclear family system, on the other hand, may be positively related to the educational attainment as children get attention of parents more in comparison to the joint families.


It is the total expenses incurred by a household on education of children in a year. It is hypothesized that higher the expenditure, higher will be the educational attainments of the children. In case of larger size families particularly in poor economic set up, yearly educational expenditure per capita would be small for dilution of familial resources.

13. Highest Expectation of Parents about Male Children's Education (HEPMCE) and
14. Highest Expectation of Parents about Female Children's Education (HEPFCE):

Highest expectation of parents regarding their sons and daughters education exerts a positive and strong impact on educational attainment of both sexes. This variable is included to estimate impact of parental attitude towards attaining higher education of both the boys and girls. Hence, information of parents in regard to the desired levels of education measured in terms of years of schooling are collected. Higher expectations is likely to result in higher achievements subject to gender disparity.

15. Parent's Expectation about Help in Domestic Work from Male Children (EHDWMC) and

16. Parent's Expectation about Help in Domestic Work from Female Children (EHDWFC):

Children in most of the families, in rural areas perform various types of farm and domestic works like fetching water, cooking food, weaving cloth, tending cattle, ploughing paddy field etc. which may reduce study time and quality and levels of educational attainment of the children of farming households. Hence; this variable is also included to estimate the impact on educational attainment. The variable represents short run benefits of having children and is hypothesized to have negative impact on educational attainments of the children.

17. Expectation of Parents to Live with Male Children after Their Marriage (ELMCAM) and
18. Expectation of Parents to Live with Female Children after Their Marriage (ELFCAM):

In order to estimate the impact of parents' expectation about living with their children (Male and Female), information of parents' expectation were collected and included in this study. The variable reflects long run benefits of having children. It is expected that parents expecting to live with their children (at least any one of them) will invest more on the education of the children. ELMCAM denotes male children and ELFCAM, the female children.

19. Distance of the Nearest Educational Institutions in Kilometers (DNEI):

Distance to primary, middle and secondary schools may affect the schooling achievement of children especially in lower levels. This may be because local primary, middle and secondary schools may not be available or they may be located far from a habitation. It may be dangerous or may be perceived by the parents to be dangerous for the children to walk long distances. Besides, the time and costs associated with attending school increases. Hence, this variable is included with a view to assess the impact on children's education. Negative impact of this variable on children's education is hypothesized.

20. Distance of a Household from the Nearest Township in Kilometers (DHNT):

Distance of a household from the nearest town or city affects the schooling achievement of children. In towns or cities better educational inputs are available. The
cost of sending and necessary time to reach educational institutions located in towns or cities is higher to a household residing in interior areas in comparison to a household residing in towns or nearer to towns. Hence, this variable is also included to compute the impact on educational attainment and its impact is likely to be negative.

21. House Type (HT):

House type reflects wealth or asset condition of a household. Hence, in order to rank the households by their wealth status, the information of the type of household (Kutchha /Pucca / Partly pucca), number of rooms (1/2/3/4 or more) and availability of electricity (yes / no) were recorded. It is an indicator of economic solvency of the household and hence is expected to positively influence the schooling attainments of the children.

22. Rooms/More Rooms.

Rooms in a household are represented by number. However, during survey, it is observed that some households have larger number of rooms (more than 4). These cases is treated as households having more rooms and represented by eight, the upper limit of such cases. More rooms means more indoor space for children. This may be helpful for children to perform better in the school.

23. Electricity Available to Household (ELC):

Availability of electric facility to a household reflects an area’s infrastructural development. It also reflects socio economic status of a household. Availability of this
facility to a household raises the schooling knowledge of children from electronic devices like Television, Radio and other sources. It also helps to raise reading hours of children. Hence this variable is taken as explanatory variable in this study which is expected have positive impact on schooling attainment of children.


Lives stocks at the disposal of a household also reflect the economic status in rural India. The values of movable assets, like cow, goat, buffalo, poultry etc. are calculated in rupees on the basis of probable market price. As an indicator of the economic status of the family, the variable may have positive impact on children’s education. However, in case larger live stocks require more child labour for its maintenance, the variable may have negative impact on children’s education.

25. Health Condition of Children (Average) (HEALTH):

Health condition of school going children in a family is broadly classified in to three groups: (a) very good (b) good and(c) bad. Then, each of these groups is assigned numeric values which are 5 for very good, 3 for good, and zero for bad. The final score is obtained by dividing the addition scores of these groups of children by the number of school going children in the family is the average health condition of children. It is expected that children enjoying good health will perform better in school.

26. Last Examination Result (Average) (LER):

Last examination result indicates quality of educational attainment of a school going children. It is classified in to three groups :( a) very good (b) good and(c) bad. The
points awarded in these groups of results are 70, 50, and 0 respectively. The final score is obtained by dividing the total scores of these groups of results by the number of school going children in the household is average result of last examination.

27. Phone Available with Household (PHONE):

Phone is an important infrastructure which helps to communicate between persons located in different parts of the world. It also reflects economic status of a household. This variable is also incorporated to compare economic status of the sample households in this study.

28. Two/Four Wheeler Available with the Household (WHEELER):

Availability of Two/Four Wheeler is an Index of well being of a household. Availability of this facility to a household may reduce the necessary time to reach educational institution in rural and urban areas. Hence, this variable is expected to have positive impact on schooling attainment of children.

29. Computer Available with the Household (COMPUTER):

Availability of computer to a household also reflects economic status of a household. Computer has become an indispensable tool in modern age. It is not only used in solving arithmetic at high speed but also research problems of students in Physical and Behavioural Sciences as well in the Humanities. Hence this variable is also expected to exert positive impact on educational attainment of children.
30. **Number of Children Not Ever Attended School above the Age of Five (NCNEAS5):**

It implies those children of a household above five years who have not attended school ever. The variable is control variable particularly when schooling attainments of children is represented by average years of schooling per child in a household.

31. **Age of Father (AF):**

Age of father is expected to have a negative effect on the demand for children's education. The negative effect is expected for the reason that with the growing age the demand for labours to be provided by the household children as a substitute for the labour of head of the household, increases. This variable is also a control variable in the regression model since higher age of father means that the family is near completion.

32. **Age of Mother (AM):**

Age of mother is expected to have negative effects on schooling of children. As the age of mother grows up, the necessary works to be assisted by the girls increase. Moreover, aged mother may also have more conservative outlook and attitude which may strictly averse to girls going to school. Aged mother may also try to give girls in marriage at an early age which brings about discontinuation in education. Like age of father, age of mother is also a control variable since higher age of mother means that the mother is at the end of fertility span.
33. Age of Mother at the Time of Marriage (AMM):

Age mother at the time of marriage reflects the child bearing capacity and length of conjugal life which is expected to have negative effects on children's schooling. Higher the age at marriage will be less span of fertility and less number of children. Less number of children will get more opportunities of schooling. Lower the age at marriage will be longer span of fertility and more number of children which will reduce the levels of educational attainment as the familial resources is to be divided among the large number of children. This is also a control variable.

34. Number of Children Attending Madrasa Education (NCAME):

It implies those children who are continuing theological study in Muslim families of rural and urban areas of Barak Valley. Their educational level is calculated in terms of years of education completed by them.

35. Number of Children not Attending School above the Age of Five (NCNAS5):

It includes those children who have completed a certain level of education and those who have dropped out after continuing some level of education. It will have hypothetically adverse effect on the schooling attainments of children.

36. Size of Land Holdings (SLH)

It was recorded as Katha at the time at the time of conducting household survey. Later; it was converted in to hectare for the purpose of analysis. The literature
suggests that the size of land holding may have either positive or negative impact on children's education.

**37. Number of Times Father/Mother Moving Out (FMMO):**

Father's/Mother's tours outside or exposure to the outside world broaden the outlook and attitude of parents which encourages parents to send their children to educational institution. Hence, in order to assess the impact of this variable on schooling of children, first, the visits of parents were classified as (a) visits to the capital of the state (b) visits to the other places of the state and (c) visits to places outside the state. Again, the frequencies of visits were classified as Frequently, Few and Nil-indicating no visits till the date of survey. Then, the frequencies of the three categories of visits were assigned different values: 3 for frequent visits, 2 for few visits, zero for no visits or nil for the visits in group (a). The value assigned to the group (b) visits were 2 for frequent visits, 1 for few visits and 0 (zero) for nil and the value assigned to the group (c) visits were 5, 3, 0, for frequent visits, few visits, and nil or no visits respectively. The addition of groups (a), (b), and (c) indicates the scores of number of father's/mother's moving out of a household. However, this method is associated with a drawback that the households with same level of scores like 1, 2, 3, 5, etc. may not indicate same level of exposure of father's/mother's to the outside world as the places of visits are not identical. But the higher score of a household in comparison to the other household's score will indicate higher exposure of father's/mother's of the former household than the latter household to the outside world. This scoring method
is to assess the impact of this variable on the dependent one. It is hypothesized that this variable will exert a positive influence on the demand for children’s education.

The data generated for the study is analyzed with the help of different statistical tools. Mean and standard deviation of the selected variable and other simple tabular analysis techniques have been used for data analysis purposes. Suitable statistical technique has also been used for testing the proposed hypothesis and also for identifying proximate determinants of household demand for children’s education.

The basic model under consideration is a multiple linear regression model of the following type:

\[
ASC = f (\text{households socio-economic characteristics}) \\
= \alpha + \beta X + \text{error term}.
\]

Where, \( AEC \) = Average years of completed schooling per child in a household. And \( X \) = Household’s selected socio-economic characteristics.

This helps in identifying the socio-economic factors that effect significantly the household demand for children’s education. Regression analysis is also applied to find the impact of dilution of familial resources on schooling attainments of children.

For throwing light on the impact of rural urban residence and region on schooling achievements of children, suitable dummies representing residence and region is included in the regression model.
Finally, family size is included into the model to ascertain dilution impact on the schooling achievement of children. As Quantity and Quality have a two-way relationship, the corrected OLS estimates are found out by applying 2SLS method of regression analysis. All these steps together answer all the objectives and hypothesis of the study. The hypothesis is also put to test. The respective models- OLS and 2SLS for identifying proximate determinants of schooling attainments of children, Dilution and Quantity-Quality impact on education of children are developed and estimated in following chapter.

4.2.2 Final Selection of Variables

The choice of explanatory socio-economic variables for the study is guided by available literature in this field of study. The study focuses only on the demand side variables. The supply side variables such as availability of school within village and in town, pupil teacher ratio, etc. are not considered as Assam is not a laggard in these respects among the north-eastern states of India. However, choice of explanatory variables is also guided by local conditions which allow for inclusion of a few important supply side factors into the study. The data have also been put to test for examining the severity of multicollinearity. Zero Coefficient Method (by dropping one variable in a set of two exhibiting sever multicollinearity) is applied to reduce considerably the severity of multicollinearity. The following variables are identified for consideration in the study.
1. Variables Used for Estimating Mean and Standard Deviation:

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2. Variables Used for Capturing Dilution of Familial Resources:

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<td>3</td>
<td>GYEE</td>
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</tr>
<tr>
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<td>LER</td>
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3. Socio-economic Status Index (SESİ):

Since there are large number of variables in the list and literature suggests that socio-economic status has a robust positive impact on the schooling attainments of children,
one Index of the Socio-economic status of the household is constructed with the following variables.

<table>
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4. Variables Used in Regression Models (OLS and 2SLS):

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All these models are discussed in details in the following chapter.