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Md. Rafique Uddin Ahmed
Assistant Professor,
Department Economics,
Gauhati Commerce College

Education and Rural Commuting: A Case Study of Dhubri District in Assam

Md. Rafique Uddin Ahmed

Abstract
As a merit good, provision of education results in substantial benefit spillover on the society. Education positively affects the attitude of the human resources, their consumption pattern and preferences, innovativeness, attitude towards family size and an assortment of collective attitudes which have importance from economic point of view. Most social scientists would probably agree with the view that it is the manpower resources of a country, not its material resources that ultimately determine the nature and rapidity of economic and social development of a country.

The acceleration of seasonal migration, circular migration and commuting of people out of rural areas of developing countries into urban areas is recognized as defining characteristic of demographic, economic and social change with unfathomable implications for socio-economic transformation of rural areas.

The paper mainly examines the relationship between educational attainment of people in rural areas and rural commuting in sample villages of Dhubri district of Assam. Besides an attempt is also made to find out the prevailing educational status of rural people in the sample villages. The paper concludes that there is significant positive relationship between education and rural commuting. The main two factors inducing the rural people to commute are found to be earning and education.

Keywords: Education, Rural Commuting, Commuting Index, Education Index, Adjusted Means Years of Schooling

1. Introduction
As a merit good, provision of education results in substantial benefit spillover on the society. Education positively affects the attitude of the human resources, their consumption pattern and preferences, innovativeness, attitude towards family size and an assortment of collective attitudes which have importance from economic point of view. Most social scientists would probably agree with the view that it is the manpower resources of a country, not its material resources that ultimately determine the nature and rapidity of economic and social development of a country.

Education is believed to have considerable influence in rural-urban migration and commuting. Various studies on this have documented the positive correlation between educational attainment of an individual and propensity of the individual to move from rural to urban areas. "Basically individuals with higher levels of education face wider urban- rural real income differentials and higher probabilities of obtaining modern sector jobs than those with lower levels of education. The probability variable in particular accounts for the growing proportion of the more educated rural migrants in the face of rising levels of urban unemployment among the less educated" (Todaro, 1993) [2]

2. Objectives
The main objectives of the paper are as under-
➢ To study the educational status of the sample villages
➢ To study the nature of rural commuting in the sample villages
➢ To study the impact of education on commuting

3. Hypothesis
The paper wants to test the following null hypothesis:
"Rural commuting is unaffected by the educational attainment of the rural people"

Correspondence:
Md. Rafique Uddin Ahmed
Assistant Professor,
Department Economics,
Gauhati Commerce College

4. Methodology

The present study covers the Dhubri district of Assam. The study covers all types of household, ethnic groups and communities on the random sampling basis. The data required for the study have been collected from ten sample villages viz. Atgharitari, Bhangaduli, Borobalarchar, Boromera, Choto Pokalagi, Digholtari, Kaimarichar, Khalisamari, Lohajani and Mora Gadhadhar through field investigation. In each village 15 households were selected randomly for collecting necessary primary statistics. The data collection was done in 2014.

SPSS software package is used to run a regression line. On the basis of the estimated regression line, the hypothesis is tested.

To explore the relationship between education and rural commuting, the following model is constructed

CI= α + β.EI+U

Where,
CI= Commuting Index
EI= Education Index

The general formula to transform a raw variable, say X, into a unit-free index between 0 and 1, which permits different indices to be added together have been used in the study.

$$x \text{ index}=\frac{x-min(x)}{max(x)-min(x)}$$

Where, min(x) and max(x) are the lowest and highest values the variable x can attain respectively.

5. Educational Attainment of Household Heads in Sample Villages

Parental educational level is an important predictor of children's educational and behavioral outcomes. In fact, research suggests that educational attainment and skill knowledge of the household heads eventually to a large extent determines the achievements of their other family members.

The following Table-1 shows the educational attainment of the head of the households surveyed in the sample villages of Dhubri district.

Table 1: Educational Attainment of Household Heads in the Sample Villages

Sl. No.	Village	Level of Education Completed			Exact Completed Years of Schooling	Mean Years of Schooling
		Primary	Secondary	Tertiary		
01	Atgharitari	5	3	0	67	4.4667
02	Bhangaduli	6	1	0	56	3.7333
03	Borobalarchar	5	3	0	62	4.1333
04	Boromera	4	2	2	76	5.0667
05	Choto Pokalagi	6	2	1	73	4.8667
06	Digholtari	5	0	2	57	3.8000
07	Kaimarichar	8	0	0	46	3.0667
08	Khalisamari	3	1	2	57	3.8000
09	Lohajani	7	1	2	78	5.2000
10	Mora Gadhadhar	2	0	2	46	3.0667
	Total	51	13	11	618	4.1200

Source: Field Survey

It is revealed from the table that no household head completing higher education is found in Atgharitrari, Bhangaduli, Borobalarchar and Kaimarichar villages. Most of the respondents of these four villages were reported to have completed basically primary level of education.

The concept of Mean Years of Schooling (MYS) is relevant in this paper which was used by the Human Development Report Office of the United Nations Development Programme (UNDP) as one of the education indicators in the computation of the Human Development Index (UNDP, 2010) [3]. The MYS indicates the average number of years of schooling completed of a country's population; exclusive of years spent repeating individual grades. In addition to the completed years of education, incomplete education may also be considered for exact assessment which is calculated on the basis of actual years of completed education without having any relation to level of education completed. In the present study, the researcher has used 'Adjusted Mean Years of Schooling' in order to be more specific and to get appropriate idea about the educational attainment of the household heads and to construct a more reliable education index (EI).

The total years of schooling completed is found to be highest in the Lohajani village and lowest in the Kaimarichar and Mora Gadhadhar village. However, the adjusted mean years of schooling is found highest in the Lohajani village and lowest in the Mora Gadhadhar village. Thus, in the present study Lohajani village is found to be most forward village and Mora Gadhadhar village is found to be the most backward village in respect of educational attainment of the rural people.

6. Commuting In Sample Villages

Commuting is normal and usual movement of people between one's place of residence and place of work, study or other. It occasionally means any regular or habitually repeated traveling between places, even when not work-related. The Table-2 shows the commuting population of the sample villages of Dhubri district of Assam in 2014.

Table 2: Commuting Population in the Sample Villages

Sl. No.	Village	Population Expected to Commute	Earning	Education	Other	Total
			Purpose of Commuting			
01	Atgharitari	54	3	4	0	7
02	Bhangaduli	45	0	2	0	2
03	Borobalarchar	60	1	2	1	4
04	Boromera	72	5	6	1	12
05	Choto Pokalagi	54	3	6	2	11
06	Digholtari	57	2	0	0	2
07	Kaimarichar	52	0	1	0	1
08	Khalisamari	72	3	1	0	4
09	Lohajani	53	8	2	3	13
10	Mora Gadhadhar	63	1	0	1	2
	Total	582	26	24	8	58

Source: Field Survey

The table gives an idea about the commuters of the sample villages in the Dhubri district who commute to the urban areas regularly for different purposes, especially to the nearby urban centers. High degree of variation among the sample villages may be noticed in this respect. In some villages like Lohajani, Boromera and Borobalarchar village, the percentage of commuting people is comparatively higher than in the other sample villages.

As far as the factors inducing the rural people to commute are concerned, it is observed that the main two reasons of commuting are earning and education. It is observed that excepet the Kaimarichar village, in all the sample villages there are people who commute for livelihood purpose.

Table 3: Calculated Education and Commuting Indices of the Sample Villages

Sl. No.	Villages	EI	CI
01	Atgharitari	0.4533	0.1296
02	Bhangaduli	0.3067	0.0444
03	Borobalarchar	0.3867	0.0667
04	Boromera	0.5733	0.1667
05	Choto Pokalagi	0.5333	0.2037
06	Digholtari	0.3200	0.0351
07	Kaimarichar	0.1733	0.0192
08	Khalisamari	0.3200	0.0556
09	Lohajani	0.6000	0.2453
10	Mora Gadhadhar	0.1733	0.0317

Source: Calculated on the basis of Table -1 and Table-2

The Table-3 shows education and commuting indices of the sample villages which have been constructed on the data contained in Table-1 and Table-2. It is revealed that the education index is highest in the Lohajani village and lowest in the Kaimarichar and Mora Gadhadhar villages. The commuting index is found to be highest in the Lohajani village and lowest in the Kaimarichar village.

BOX-1

Dependent Variable	Independent Variable	R	R^2	F	α	β	t
CI	EI	0.932	0.869	52.899*	0.490	0.932	7.273*

Note: *at 1% level of significance*

The Box-I reveals the following results.
- The Pearson's Coefficients of Correlation between CI and EI is found 0.932. Therefore, it can be asserted with elevated level of confidence that there is a genuine positive relationship between education and habit of commuting of villagers in the sample villages. This is evident from the following scatter diagram which shows strong positive correlation between education and commuting.
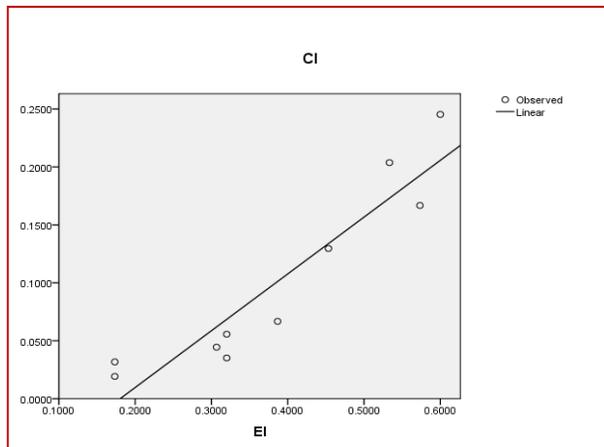

Fig 1: Scatter Plots Showing Correlation between EI and CI

- The coefficient of determination is estimated at 0.869 which implies that 87 percent of the variation in commuting habit of the villagers can be accounted for by variation in educational attainment.
- The t value is estimated at 7.273 which is significant at 1 percent implying that the predictor makes a considerable impact on the commuting habit of the villagers in the district.
- The F values is estimated at 52.899 which is significant at $p<0.001$ which implies that there is less than 0.1 percent probability that such a large F-value will appear by chance alone indicating that the regression model overall predicts the change in the commuting habit of the rural people efficiently. Thus it asserts that the regression model overall predicts the change in the commuting habit of the rural people efficiently.

Hence, we reject the null hypothesis that rural commuting is unaffected by the level of educational attainment of rural people in rural areas.

7. Conclusion
Thus it can be concluded that education is one of the chief factors affecting commuting and rural urban-linkage. Provision of better education to the rural people can be an effective instrument to bridge up the rural-urban disparity which will eventually also act as strong positive force for rural poverty reduction.

8. References

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