

# Impact of Education on Rural Employment: A Case Study of Jorhat District in Assam

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*Abstract: Economics of education is a branch of economic science, which is of recent origin. It has had mixed response from both economists and educationists, with some educationists being circumspect about the need for economic evaluation of education, while a handful of economists question the foray of economics into the realm of education. However the overwhelming majority agrees that education is a merit good and hence needs collective deliberation from economists, educationists and social scientists. The main objective of the economics of education is to recognize opportunities for improved efficiency, equity and quality of education and promote much needed education reform process.*

*As a merit good, provision of education results in substantial benefit spillover on the society. It imparts knowledge and creates skills increasing the productivity and employability of the existing and future manpower resources of an economy, which results in their proper utilization. Education decreases the gap between human resource requirements and human resource availability and in the process softens the impact of unemployment or skill shortage, as the case may be. Such a gap can only be bridged if education adapts to the ever-changing nature and size of the manpower demand in the present day dynamic economies.*

*Education is a chief influencing factor in self realization and economic development of a country. Education nowadays is regarded as a productive investment and as such is being used gradually as an effective tool for economic and social upliftment of a nation. 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.*

*Nonfarm activities plays significant role in decreasing the wide spread rural poverty through employment generation and creation of sufficient demand for goods and services rural market. The role become more significant when it provides diverse employment opportunities to the people in rural areas and in the course transforms the rural economy in compliance with the growth of the national economy. The paper mainly examines the relationship between educational attainment of people in rural areas and rural non-farm sector employment in the 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.*

*Index Terms: Education, Non-farm Sector, Employment Structure Index, Education Index, Adjusted Mean Years of Schooling*

## 1. Introduction:

As a merit good, provision of education results in substantial benefit spillover on the society. It imparts knowledge and creates skills increasing the productivity and employability of the existing and future manpower resources of an economy, which results in their proper utilization. Education decreases the gap between human resource requirements and human resource availability and in the process softens the impact of unemployment or skill shortage, as the case may be. Such a gap can only be bridged if education adapts to the ever-changing nature and size of the manpower demand in the present day dynamic economies.

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## 2. Review of Literature:

Human capital attributes like education, skills etc. broaden the set of employment and entrepreneurial options for individuals in rural areas. Households education levels are an often cited measure of human capital used empirically to explain the degree of participation across a wide range of income groups in the rural non-farm economy.

For example, Abduali and Delegado (1999) found that the probability of participation in non-farm work increases with age up to 33 for men and 30 for women and is, thereafter, inversely related to age. They also found that higher level of education is positively correlated with a higher probability of participation for both husbands and wives in rural non-farm economy.

Lanjouw (2001) suggests that the educational credentials may be used to ration access to scarce regular non-farm employment opportunities. Islam (1997) in his study found that primary and secondary level of education promotes the growth of rural non-farm sector. Literacy enhances the productivity of work force and makes it easier to master skills provided through on job training. Secondary education stimulates entrepreneurial capacity.

**3. Objectives:**

The main objectives of the paper are as under:

- To study the educational status of the selected villages.
- To construct education index and employment structure index.
- To study the impact of education on employment in rural non-farm sector.

**4. Hypothesis:**

The paper wants to test the following null hypothesis:

“Employment in non-farm sector of rural areas is unaffected by the educational attainment of the rural people “

**5. Methodology:**

The present study covers the Jorhat district of Assam. The study covers all types of households, ethnic groups and communities on the random sampling basis. The data required for the study have been collected from 15 sample villages viz., Chamua Gaon, Miri Gaon, Bhakat Gaon, Changmai Gaon, Phukonbari Gaon, Sonari Gaon, Boria Gaon, Jakhoria Gaon, Dulia Gaon, Sagunpara Gaon, Gharfalia Gaon, Kumar Gaon, Lahuwal Gaon, Tamuli Gaon and Chowdang Gaon through field investigation. In each of the villages 15 households were selected randomly for collecting necessary statistics.

Thus the sample size becomes  $15 \times 15 = 225$ . The data collection was done in 2014. The data analysis and interpretation part of this paper has been done with the help of SPSS software package. Hypothesis is tested on the basis of the estimated regression line. The following model is constructed to estimate the relationship between education in rural areas and non-farm sector employment.

$$ESI = \alpha + \beta EI$$

Where,

ESI=Employment Structure Index

EI=Education Index

The general formula to transform a raw variable, say  $X$ , into a unit free index between 0 and 1 which allows 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.

The education index has been constructed on the basis of adjusted mean years of schooling.

$$EI = \frac{\text{Actual MYS} - \text{Minimum MYS}}{\text{Maximum MYS} - \text{Minimum MYS}}$$

Where,

EI= Education Index,

MYS= Mean Years of Schooling (Adjusted)

MYS indicates the average number of completed years of education of a country's population; excluding years spent repeating individual grades. MYS estimates produced by the UIS cover the population aged 25 years and older, which is the indicator used in the calculation of the HDI.

The concept of Mean Years of Schooling has been used by the researcher to represent the proper educational attainment level of the respondents. The Mean years of schooling is adjusted and thereafter used directly as the educational index in the present study.

**6. Educational Attainment in Sample Villages:**

Parental education level is an important predictor of children's educational and behavioural 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.

**Table-1: Educational Attainment of Household Heads in The Sample Villages**

Village	Level of Education			Completed Years of Schooling	Exact Total Years of Schooling	Adjusted Mean Years of Schooling
	Primary	Secondary	Tertiary			
Chamua Gaon	3	5	0	65	71	4.73
Miri Gaon	7	2	2	90	102	6.80
Bhakat Gaon	5	4	1	86	96	6.40
Changmai Gaon	6	4	2	98	104	6.93
Phukonbari Gaon	3	4	1	76	86	5.73
Sonari Gaon	4	4	1	80	91	6.07

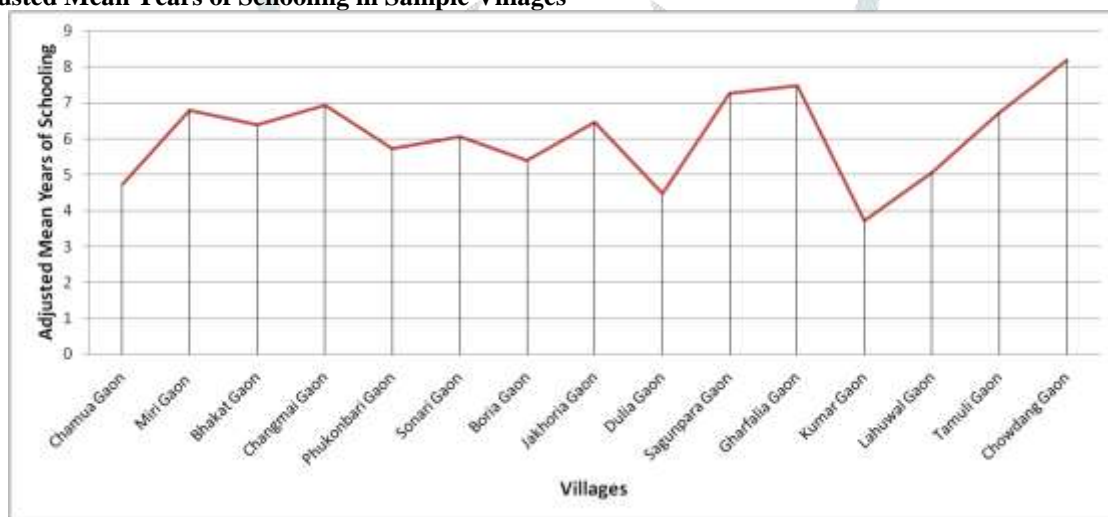
Boria Gaon	7	2	1	70	81	5.40
Jakhoria Gaon	7	3	1	88	97	6.47
Dulia Gaon	5	2	1	62	67	4.47
Sagunpara Gaon	6	4	2	104	109	7.27
Gharfalia Gaon	9	2	2	100	112	7.47
Kumar Gaon	7	2	0	51	56	3.73
Lahuwal Gaon	4	2	2	69	76	5.07
Tamuli Gaon	6	3	2	92	101	6.73
Chowdang Gaon	5	4	3	119	123	8.20
<b>Total</b>	<b>84</b>	<b>47</b>	<b>21</b>	<b>1250</b>	<b>1372</b>	<b>6.13</b>

Source: Field Survey

It is revealed from the Table that no household head completing higher education was found in Chamua Gaon and Kumar Gaon. Majority of the villages were found 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). 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 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 Chowdang Gaon village and lowest in the Kumar Gaon village. The adjusted mean years of schooling is found highest in the Chowdang Gaon village and lowest in the Kumar Gaon village. Thus in the present study Chowdang village is found to be most forward village and Kumar Gaon village is found to be the most backward village in respect of educational attainment of the rural people.

Figure-4.12: Adjusted Mean Years of Schooling in Sample Villages



**7. Non-farm and Farm Employment in Sample Villages:**

The rural non-farm sector, unlike farm sector includes all non-agricultural activities i.e., processing, repair, construction, mining and quarrying, household and non-household manufacturing, trade and commerce, transport and other services in villages and semi urban areas done by different enterprises. The rural non-farm sector thus covers different activities while steady growth in the rural non-farm sector to a large extent depends on a variety of factors. Rural non-farm sector will experience development and distress related rural diversification which depend on the kind of force, positive or negative that these factors provide to the rural economy.

Table-2: Farm and Non Farm Workers in the Sample Villages

Village	Total Worker	Farm Worker	Non-farm Worker	% of Farm Worker	% of Nonfarm Worker
Chamua Gaon	28	17	11	60.7	39.3
Miri Gaon	36	24	12	66.7	33.3
Bhakat Gaon	38	23	15	60.5	39.5
Changmai Gaon	24	16	8	66.7	33.3
Phukonbari Gaon	36	21	15	58.3	41.7
Sonari Gaon	52	28	24	53.8	46.2
Boria Gaon	37	24	13	64.9	35.1
Jakhoria Gaon	46	25	21	54.3	45.7
Dulia Gaon	39	26	13	66.7	33.3
Sagunpara Gaon	32	24	8	75.0	25.0
Gharfalia Gaon	38	20	18	52.6	47.4
Kumar Gaon	47	39	8	83.0	17.0
Lahuwal Gaon	35	23	12	65.7	34.3
Tamuli Gaon	56	28	28	50.0	50.0
Chowdang Gaon	49	26	23	53.1	46.9
<b>Total</b>	<b>593</b>	<b>364</b>	<b>229</b>	<b>62.1</b>	<b>37.9</b>

Source: Field Survey

It is observed that in the 15 sample villages, Kumar Gaon is the village where the percentage of non-farm worker is lowest in comparison to other remaining sample villages. On the other hand Tamuli Gaon is the village where the percentage of non-farm worker is highest in comparison to the other sample villages. The percentage of non-farm worker is only 17 percent in Kumar Gaon village whereas half of the workers in the Tamuli Gaon village work in non-farm sector.

**Table-3: Calculated Employment Structure and Education Indices in the Selected Villages**

Villages	ESI	EI
Chamua Gaon	0.3929	0.2763
Miri Gaon	0.3333	0.6842
Bhakat Gaon	0.3947	0.6053
Changmai Gaon	0.3333	0.7105
Phukonbari Gaon	0.4167	0.4737
Sonari Gaon	0.4615	0.5395
Boria Gaon	0.3514	0.4079
Jakhoria Gaon	0.4565	0.6184
Dulia Gaon	0.3333	0.2237
Sagunpara Gaon	0.2500	0.7763
Gharfalia Gaon	0.4737	0.8158
Kumar Gaon	0.1702	0.079
Lahuwal Gaon	0.3429	0.3421
Tamuli Gaon	0.5000	0.6711
Chowdang Gaon	0.4694	0.9605

Source: Field Survey

## BOX-1

Dependent Variable	Independent Variable	R	R <sup>2</sup>	F	$\alpha$	$\beta$	t
ESI	EI	0.510	0.260	4.577*	0.275	0.510	2.139*

Note: At 1 % level of significance

The Box-1 reveals the following results:

- The Pearson's coefficient of correlation between EI and ESI is found 0.510. Therefore, it can be asserted that there is positive relationship between education and rural non-farm employment in the selected villages. This is evident from the following scatter diagram which shows strong positive correlation between education and non-farm employment.

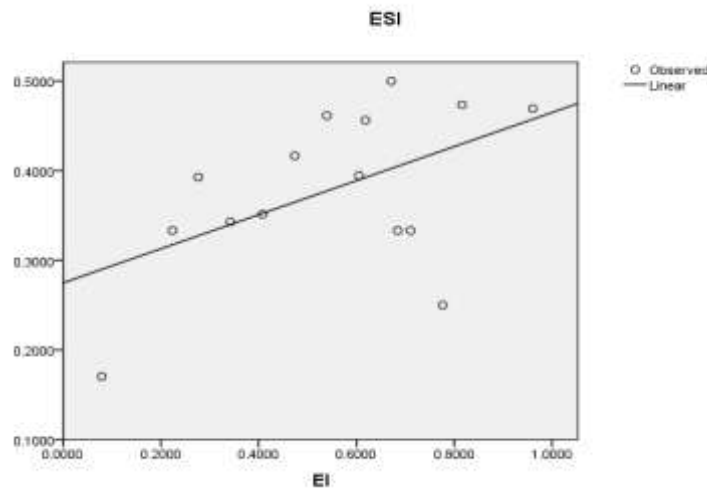


Fig: Scatter Plots Showing Correlation between Education Index and Employment Structure Index

- The coefficient of determination is estimated at 0.260 which implies that 26% of the variation in employment in non-farm sector can be accounted for variation in educational attainment.
- The t-value is estimated at 2.139 which is significant at 1 percent level implying that the predictor makes a considerable impact on the employment structure of sample villages.
- The F-value is estimated at 4.577 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 occur by chance alone indicating that the regression model overall predicts the change in the structure of rural employment efficiently. Thus it asserts that the regression model overall predicts the change in the nature of rural employment efficiently. Hence, we reject the null hypothesis that employment in rural; non-farm sector is unaffected by the level of educational attainment of rural people in rural areas.

## 8. Conclusion:

From the study it can be concluded that education is one of the chief factors affecting the employment structure in the rural areas. Provision of better education to the rural people can be an effective instrument to change the traditional rural sector and bring about balanced growth of farm and non-farm sector.

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