

there will be an increase in individual's health expenditures during illness. Also, individual out-of-pocket expenditures during illness decreases when cover by social health insurance. This is an indication of ex-post moral hazard in social health insurance. Health expenditures during illness also increases with an increase in expected health expenditures and non-health consumption expenditures. The covariance of after-tax income and expected health expenditures is positive but very small with the value of  $3.029e-06$  (i.e.  $\text{cov}_{ir}(b_{ir}p_r, Z_{ir}) = 3.029e-06$ ). Since the covariance of after-tax income and expected health care spending ( $p_r, z_r$ ) which measure equity effect is positive, we can as well conclude that the denominator which measures efficiency effect in equation (16) is positive. Since, both are positive, it can then be concluded that social health insurance is optimal in Nigeria despite ex-post moral hazard problem.

## 5. Conclusion

This study examined the redistributive effect of social health insurance with moral hazard in Nigeria and determine whether social health insurance is optimal in Nigeria. The result confirmed the theoretical expectation of a negative relationship between morbidity, the marginal net expected social valuation of income and productivity. This established that social health insurance redistributes resources in Nigeria given ex-post moral hazard as suggested by Boadway *et.al.*, (2006). The covariance of expected health care spending which measure equity effect is positive and hence, its denominator which measures the efficiency effect of social health insurance can be assumed positive. Since, both the equity and efficiency effects are positive, we concluded that social health insurance is optimal in Nigeria. This study, therefore further corroborate Olayiwola and Olaniyan (2019) on the welfare effects of health insurance in Nigeria that the expansion of social health insurance in Nigeria will increase societal welfare. Therefore, government should be more proactive in her efforts to expand social health insurance in Nigeria.

<sup>1</sup>Pauly (1968) assumed that the loss of disposable income from the premium payment has no effect on health care spending. He is however, silent regarding the effect of income transfers through insurance payoffs on health care spending.

<sup>1</sup>The new argument of the welfare implication of moral hazard posits that within the price reduction is an income transfer from those who remain healthy to those who become ill. This income transfer is responsible for the additional health expenditures considered as welfare-decreasing under the previous moral hazard model. Thus, there is a portion of moral hazard related to income transfer which was re-categorised as welfare increasing.

<sup>1</sup>Studies related to the welfare implication of health insurance for Nigeria are by Lammers and Warmerdam, (2010) on adverse selection in voluntary micro health insurance in Nigeria.

<sup>1</sup>That is,  $f_{iH} / (f_{iH} + f_{iL})$  - the proportion of high-risk individuals in productivity class  $i$  differs across classes.

<sup>1</sup>A natural extension is to have the labour supply falling to zero in the bad state of health.

<sup>1</sup>It is assumed that the reimbursement scheme is linear. In principle, since firms can observe  $z_{ir}$ , they should be able to use non-linear schemes.

<sup>1</sup>Since households choose their labour supply and health expenditures after the state of health is revealed, state-specific utility maximization problems could be used to characterize household behaviour. However, it is useful for expository purposes in subsequent stages to treat the household as maximizing expected utility

<sup>1</sup>In the absence of moral hazard,  $z$  is fixed so that indifference curves have the slope  $[1 + (u_c^{0,ir} / u_{cr}^{1,ir})(1 - p_r) / p_r]^{-1}$ . This is expected to decrease as insurance coverage  $p$  increases and marginal utilities of consumption in the two states become more equal. The rate at which the slope of the indifference curve decreases can be expected to fall once  $z$  is endogenous since  $z$  decreases in  $p$ .

<sup>1</sup>The function  $u(c + h - g(e))$  where  $u(\cdot)$  is strictly concave was used, which implies that households are risk averse and the government has a redistributive motive.

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## CAUSES AND CONSEQUENCES OF POVERTY IN THE RURAL HOUSEHOLD IN KWARA-NORTH SENATORIAL DISTRICT OF KWARA STATE, NIGERIA

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### ABSTRACT

*This paper examined the causes and consequences of poverty in the rural household in Kwara-North senatorial district of Kwara state. The study employed P-alpha class measures of poverty to determine the incidence of poverty. The households were classified into poor and non-poor groups, using relative poverty line of two-third of mean per capita expenditure. The results show that the rural households in the study areas were poor in terms of basic facilities and not money-wise. The results also revealed a significant impact of incidence of poverty on human capital. The study concluded that government should embark on policies that would improve the state of existing human resources. This could be achieved through policies that would promote access to quality education, good health care services, apprenticeship training and nutrition in order to reduce poverty level and improve standard of living in rural areas.*

### Introduction

Poverty is multidimensional in nature and could be found in most rural and multi-ethnic cities in most developing countries like Nigeria. This posts a great challenge to the development of most cities in Nigeria. This has given rise to the studies on multidimensional studies available in many welfare studies in Nigeria. The plurality of human life has place more emphasis on household welfare as much as it does on every element that forms the basic yardstick in developing a sustainable policy issues (Oni & Adepoju, 2013). Hence, a deprived household in multidimensional well-being attributes presumes that, household lacks sufficient income. The relevance of economic and social fulfilments in adjudging welfare deprivation among the rural dwellers can be addressed in its multidimensional form, hence the need to move from income approach analysis of household well being to multidimensional perspective is necessary. Economic and social well being recognises more income to consumption issues, which include other dimensions

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like health, education, nutrition, security, environmental integrity, freedom, social relations and affiliations. In spite of the great improvement in poverty eradication and progress in household welfare, poverty remains a substantive global menace. It is estimated that, approximately one sixth of the world's total population lives in condition of severe poverty of less than US\$1 a day and more than one-half of this figure lives on less than US \$2 a day (International Labour Organisation (ILO) 2008). The United Nations Human Development Report (2014) opined that, poverty has a rural face, due to the fact that, about 75 percent of the world poor are found in the rural areas of a developing economy. Nigeria is considered among the worst hit by poverty in Africa, with close to 112 million people out of 173 million people still wallowing in abject poverty (NBS 2013).

The situation of poverty in Kwara State is noticeable, where over 62 percent of the total populace lives in poverty, out of which 41 percent were found in the urban and 59 percent in the rural areas (NBS, 2011). The poor living in the rural areas was marginalised through urban-biased development policies and programmes which are deprived of facilities such as infrastructures, education and health care services. Other facilities lacking in the rural areas are credit provision, employment generation, commercialisation of local technologies, and other social welfare services. Suffice to say that, most of the programmes introduced to check the essence of poverty in the rural areas such as Better Life for Rural Women (BLRW), Directorate of Food, Roads and Rural Infrastructure (DFRRI) have not yielded the desired results (Abdulrahman, 2017). This resulted in high morbidity and mortality in the rural areas due to ill health, and inability to afford good medical care facilities; inability to send their wards to school due to lack of fund and inaccessibility of the fewer schools available due to distance; lack of safe drinking water, inadequate sanitation and drainage facilities that are traceable to decent housing; and poor transportation network which makes it difficult for farmers to transport their farm produce to the market place after harvest. Thus, this study examined the causes and consequences of poverty in the rural households in Kwara-North senatorial district of Kwara State.

### **Theoretical Review**

The Keynesian view on human capital theory assumes a positive relationship between the levels of workers' cognitive skills, productivity and efficiency. This theory emphasises more on how education can be used to increase the level of productivity and efficiency of workers through increased cognitive skills. Schultz (1961), Becker (1962) and Mincer (1974) opined that people invest in education and health to increase their stock of human capabilities, which can be formed by combining instinctive abilities with investment in human beings. Such investment relates to education, apprenticeship training, health and nutrition. Hence, any increase in government expenditure on education and health is expected to have positive and significant impact on economic growth and by implication on the level of poverty. Thus, the level of government expenditure, especially in the rural area is significant in stimulating growth and reducing the level of poverty. Human capital

theorists laid more emphasis on basic literacy in order to enhance the productivity of workers in low-skill occupations. The theoretical link between human capital development and poverty can be observed from two perspectives: the direct link between human capital and poverty and the indirect link between human resource development and economic growth. From the direct link, the theorists observed that the development of human capital reduces poverty; while on the indirect links, it promotes economic growth that is beneficial to the poor. An enhanced economic growth leads to economic development which culminates in poverty reduction.

### **Causes and Consequences of Poverty**

The nature and causes of rural poverty are complex and multidimensional. These include culture, climate, gender, markets, and public policy. Similarly, the problems faced by the rural poor varies, and so also the solutions to these problems. For instance, Sachs (2005) provides graphic descriptions of poverty and a general useful analysis of its causes. He identified eight factors that can make economies stagnate. These are: poverty itself, physical geography, fiscal trap, peace and security, Cultural barriers, geographical politics, lack of innovation and a demographic trap. Some of these factors occur when governments fail to provide suitable conditions for investment, especially peace and security. However the poorest of the poor still have very poor fertility rate. From the sociological perspective of poverty, Rank (2005) argued that the root causes of poverty lies not within individual failings, but within the structural failings the society. He explains further that, there is an implicit assumption in the societal ethic of individualism and its emphasis on self-sufficiency. This could make the rich work harder and deserve their rewards, and the poor more impoverished due to their inadequacies.

However, factors causing poverty varies across the continent. In the sub-Saharan African countries for instance, inadequate access to: employment opportunities, physical assets, land and capital, infrastructure, good market, health care services and means of supporting rural development in poor region are major causes of poverty. Others include: low endowment of human capital, poor access to credit facilities to operate small scale enterprises, and destruction of natural resources leading to environmental degradation and low productivity (Ijaiya, 2002).

The effects of poverty on the poor society can be identified generally as loss of confidence in constituted authority. This generates disrespect and rendered government policies ineffective (Aku, Ibrahim and Bulus, 1997). When the people in a society feels that they are not adequately catered for, their loyalty to the system may not stand which could have effect on the success of policies been implemented.

However, Von Hauff and Kruse (1994) as cited in Ijaiya (2000) identified three costs effect of poverty in the society. The first was that poverty can lead to physical and psychological misery due to inadequate nourishment, lack of medical care services, basic and job related

education and marginalisation in the labour market. The second was the cost on national economies of countries affected, arising from formation of slums in cities, worsening ecological problems as a result of predatory exploitation in the agricultural sector, and failure to use the available human resources. The third consequence was its effect on political and social development of the affected countries, which gives privilege to the minority population particularly the corrupt elites to have control over the resources of the country at the expense of poor majority. This makes the poor to be frequently apathetic in electoral participation, inability to concentrate, and low motivation to participate in societal development programmes.

Public

Private

Total



LGEA	No. of Schools	Pupils	Girls	% Girls	No. of Schools	Pupils	Girls	% Girls	Pupils	% Girls
Asa	150	16012	7852	49	54	4062	1900	47	20074	96
Baruten	145	20051	8652	43	39	4242	2056	48	24293	92
Edu	177	18583	7847	42	55	6927	3156	46	25510	88
Ekiti	39	5799	3004	52	7	539	291	54	6338	106
Ifelodun	162	13695	6856	50	32	4182	2084	50	17877	100
Ilorin- East	79	16023	7745	48	98	11562	5797	50	27585	98
Ilorin- South	55	12707	6435	51	176	18903	9500	50	31610	101
Ilorin- West	55	29780	15056	51	205	20517	10127	49	50297	100
Irepodun	87	9039	4419	49	65	5524	2782	50	14563	99
Isin	43	3184	1564	49	10	403	192	48	3587	97
Kaiaama	84	11417	4937	43	34	3524	1730	49	14941	92
Moro	148	13908	6718	48	35	4042	2011	50	17950	98
Offa	44	11310	5749	51	80	9880	5272	53	21190	104
Oke Ero	31	4638	2412	52	9	911	466	51	5549	103
Oyun	65	5880	3053	52	23	1961	965	49	7841	101
Patigi	102	19467	8503	44	9	1133	541	48	20600	91
G/Total	1466	21149 3	10081 2	48	931	98312	48870	50	309805	97

### Education in the Local Government Areas of Kwara State

Education is considered as a big industry in Kwara State, and indeed, Nigeria as a whole. This is because; federal, state, local governments and private individuals have invested heavily on education. The current world-wide economic recession and the implementation of the International Monetary Fund (IMF) and the World Bank sponsored Structural Adjusted Programme (SAP) have not actually favoured the educational sector due to financial allocation to other sectors. The budget cuts for education when compared to earlier years have left the educational sector in drift. The consequence is that educational performance has fallen from primary through secondary to tertiary levels. Thus, education which is expected to provide opportunities for the acquisition of needed knowledge, practical and social skills has not fared well. The end result is that many products of the education system exist below the poverty line.

The profile of public and private primary school enrolment by gender and local government education areas is presented in Table 1 below:

**Table 1: Public and Private Primary School Enrolment by Gender and LGEA**

Source: Kwara State School Census Report 2011-2012

Table 1 shows the number of schools, total enrolment of pupils and Girl-child enrolment rate in public and private schools in Kwara State. It reveals that out of 211493 pupils found in public schools and 98312 in private primary schools, Ilorin-West has the highest enrolments in the state, with about 29,780 in public and 20,517 in private schools with percentage distribution scores of 51 and 49 percent in public and private schools respectively. The total number of children enrolment in public schools is lowest in Isin with 3184 and 403 in private schools respectively.

**Table 2: Public and Private Junior Secondary School Enrolment by Gender and LGEA**

LGEA	Public			Private		
	Pupils	Girls	% Girls	Total	Female	% Female
Asa	5112	2283	45	3781	1677	44
Baruten	6059	2574	42	3835	1674	44
Edu	7682	2874	37	5097	1959	38
Ekiti	1552	763	49	1118	543	49
Ifelodun	6037	2955	49	4539	2243	49
Ilorin-East	13934	6217	45	9880	4336	44
Ilorin-South	17000	8980	53	12237	6508	53
Ilorin-West	27478	12486	45	21742	9426	43
Irepodun	9093	3267	36	7212	2330	32
Isin	1352	609	45	986	445	45
Kaiama	2605	975	37	1725	659	38
Moro	4369	1835	42	3392	1410	42
Offa	6549	3366	51	5233	2719	52
Oke-Ero	1734	860	50	1301	659	51
Oyun	3726	1705	46	2618	1207	46
Patigi	2752	1045	38	2137	807	38
G/Total	117034	52794	45	86833	38602	44

Source: Kwara State School Census Report 2011-2012

Table 2 shows the total number of children enrolment into public and private junior secondary school by gender and LGEA in Kwara State. It could be observed that the total

enrolment into public schools was 27478 while 21742 was enrolled into private schools in Ilorin-West, and 1352 into public schools and 986 into private schools in Isin local government area. Generally, the percentage distribution of school enrolment into public schools was highest in Ilorin-West with 55.0 percent male and 45.0 percent female .The percentage distribution was lowest with 56.0 percent male and 44.0 percent female enrolment in private schools.

Table 3: Public and Private Senior Secondary School Enrolment by Gender and LGEA

LGEA	Public				Private				Total	
	No. of Schools	Pupils	Girls	% Girls	No. of Schools	Pupils	Girls	% Girls	Pupils	% Girls
Asa	19	3952	1601	41	8	1644	772	47	5596	87
Baruten	9	2787	1023	37	12	2508	882	35	5295	72
Edu	16	5780	1828	32	12	674	245	36	6454	68
Ekiti	15	1588	736	46	2	143	64	45	1731	91
Ifelodun	40	5962	2761	46	17	1189	571	48	7151	94
Ilorin-East	24	9642	4064	42	18	1638	812	50	11280	92
Ilorin-South	17	8866	4702	53	42	5361	2624	49	14227	102
Ilorin-West	20	11802	6035	51	22	2060	934	45	13862	96
Irepodun	33	4733	2344	50	11	1122	486	43	5855	93
Isin	12	1149	580	50	1	63	32	51	1212	101
Kaiama	7	1585	605	38	4	218	89	41	1803	79
Moro	16	3595	1390	39	7	608	268	44	4203	83
Offa	13	4337	2196	51	8	345	132	38	4682	89
Oke Ero	13	1531	695	45	2	87	29	33	1618	79
Oyun	18	3198	1377	43	3	284	123	43	3482	86
Patigi	11	2488	779	31	3	535	269	50	3023	82
G/Total	283	72995	32716	45	172	18479	8332	45	91474	90

Source: Kwara State School Census Report 2011-2012

Table 3 shows that although the gross enrolment into primary and post-primary school is on the increase in Kwara State, the other indicators of child welfare indicates unstable position in which most Nigerian children find themselves. The benefit of schooling is at the highest where a child is able to start and complete a level of formal school. The Gross Enrolment Rate (GERS) of 63 percent in primary schools indicate that, 37 percent of primary school-age children are out of school. While, the Gross Enrolment Rate for junior and senior secondary schools imply low transition rates from primary to Junior Secondary School and from Junior Secondary to Senior Secondary level of education. Furthermore, the seeming large proportion of out-of-school children is an indication that the state is far-behind in achieving the Millennium Development Goals in education. Thus, a lot is still required in terms of resources and strategic planning, and implementation of strategies and programmes to achieve educational and sustainable attainment (Kwara State School Census Report, 2012).

### **Health Care Services in the Local Government Areas of Kwara State**

Kwara State operates a three-tier health system of primary, secondary and tertiary. This spans both the public and private health service providers in the State: Federal, State, Local Governments, private orthodox practitioners and traditional medicine practitioners. However, in order to be sure of health service delivery in the state at the five levels, federal government has 2 hospitals, 63 in state government, 460 in local government, 194 private health centres and clinics, and 2718 traditional medical practitioners. Paradoxically, health care delivery in the state remained worrisome, as major health problems and disease burdens are on the increase, with manifestations of high incidence of malaria, tuberculosis and other diseases. The NDHS 2003 Reports (released 2004) for the North Central Zone, Kwara State has not been able to compete favourably well with the World Summit Goal with infant mortality/morbidity rate at 103/1000 to 50/1000; child under-5 mortality (185/1000 to 50/1000), neo-natal (53/1000 to 48/1000), and maternal mortality (980/100,000). Similarly, with a low immunisation rate of 36.2 percent recorded in the state between January to September, 2004, these manifested violations in the survival clusters of citizens (especially children and mothers) in the state which accounted for low life expectancy of 51.5 years and fertility rate of 5.2 percent at births.

### **Methodology**

Following Narayan and Pritchett (1997); Grootaert (1999) and Okunmadewa et al (2005), household per consumption expenditure is a function of human capital development and individual household characteristics.

$$hpce_i = f(hcd_i, ihhc_i) \dots \dots \dots (1)$$

where:  $hpce_i$  is the household per consumption expenditure,  $hcd_i$  is the human capital development, and  $ihhc_i$  is a set of individual household characteristics.

In this study, four indicators were used to capture human capital development. They are; apprenticeship training, access to health care services, nutrition, and education. The following indicators were also used to capture the individual household characteristics –age of household head, gender, marital status, household size, and location of the household head. Incorporating these indicators into equation 1 gives:

$$hpce_i = f(apptra_i, edu_i, health_i, nutrition_i, age_i, age2_i, gender_i, maristatus_i, hsize_i, location_i).....(2)$$

Expressing equation 2 in regression form yields

$$hpce_i = \beta_1\beta_1apptra_i + \beta_2edu_i + \beta_3health_i + \beta_4nutrition_i + \beta_5age_i + \beta_6age2_i + \beta_7gender_i + \beta_8maristatus_i + \beta_9hsize_i + \beta_{10}location_i + \mathcal{E}_i.....(3)$$

Where:  $apptra_i$  = apprenticeship training of household head;  $edu_i$  = education level;  $health_i$  = health care services accessibility;  $nutrition_i$  = food in-take or nutrition;  $age_i$  = age of household head;  $age2_i$  = age square of the household head in years;  $gender_i$  = gender of household head;  $maristatus_i$  = marital status of household head;  $hsize_i$  = size of household;  $location_i$  = location of the household head; and  $\mathcal{E}_i$  = stochastic or random error term.

Logit and probit estimation technique was used for the analysis. The poverty status of individual household was defined as dummy 1 for non-poor households and dummy 0 for poor households. Dummy 1 was assigned for access to the indicators of human capital and dummy 0 if otherwise. The  $P$ -alpha class of poverty measurement was used to determine the incidence, the depth and the severity of poverty in the study area.

**Data source**

The data used in this study were sourced from; textbooks, journals and periodicals, annual abstract of statistics, national bureau of statistics and CBN statistical bulletin (various years).

**Presentation and Discussion of Results**

The welfare of individual household heads was measured based on the total consumption expenditure and household size, using the adult equivalent scale. The study adopt \$2 as household consumption expenditure per day and poverty line of N9,600:00 per month, per adult equivalence. The result of the poverty incidence using the  $P$ -alpha class measures of poverty is shown in Table 4. The table indicates that the head count poverty index in Baruten was 0.56, which implies that 56% of the population has consumption level below the poverty line of N9, 600:00 per month, per adult equivalent.

Table 4: Poverty Incidence, Gap and Severity among Rural Households in Baruten and Edu Local Government Areas of Kwara State

Variable	Total Sample	No. of Poor Household Based on N9600.00 Poverty line/month	Poverty Head count ( $P_0$ ) in Percentages	Poverty Gap ( $P_1$ ) in Percentages	FDT ( $P_2$ ) in Percentages
Baruten	391	217	56%	16.59%	2.75%
Edu	398	206	52%	6.71	0.45

Source: Author's Computation, 2014.

The poverty head count index in Edu was 0.52 (or 52.0%). This could be attributed to the fact that majority of the household in the communities sampled were farmers and artisans whose income depended solely on their produce (Abdulrahman, 2017). Thus, the cost of living is relatively lower in these areas when compares to urban centres in payment for other basic needs such as food, housing, transport fare etc. The poverty gap indexes were 0.1659 and 0.0671 in Baruten and Edu respectively. That is, 16.5 percent of the total expenditure is required to bring the rural poor out of poverty in Baruten, while 6.71 percent is required in Edu. This implies that, an average poor household has to mobilise resources of up to 16 percent (6.7 percent) to lift-up the rural poor above the poverty line in Baruten (Edu). The poverty severity index was 0.0275 (2.75%) of the poorest in the rural areas of Baruten and 0.0045 (0.45%) of the poorest among the rural poor in Edu local government respectively.



**Table 5: Regression Results on the Incidence of Poverty and the State of Human Capital Development in Baruten Local Government Area of Kwara State**

Variable	LPM	Logit	Logit Marginal Effect	Probit	Probit Marginal Effect	Odd Ratio
<i>appra<sub>i</sub></i>	0.0524 (0.0687)	0.2550 (0.3409)	0.0539 (0.0717)	0.1257 (0.2008)	0.0443 (0.0705)	1.2905 (0.4399)
<i>edu<sub>i</sub></i>	-0.1764** (0.0866)	-0.9160** (0.4224)	-0.2125** (0.1020)	-0.5327** (0.2554)	-0.2007** (0.0994)	2.4993 (1.0557)
<i>age<sub>i</sub></i>	0.0211 (0.0129)	0.1092* (0.0653)	0.0232* (0.0138)	0.0697** (0.0390)	-0.0173 (0.0089)	1.1154* (0.0729)
<i>age2<sub>i</sub></i>	-0.0002 (0.0001)	-0.0010 (0.0007)	-0.0002 (0.0002)	-0.0007 (0.0004)	-0.0002 (0.0002)	0.9990 (0.0007)
<i>gender<sub>i</sub></i>	0.1216* (0.0733)	0.5083* (0.3734)	0.1137* (0.0871)	0.2886* (0.2221)	-0.1058* (0.0839)	1.6624 (0.6208)
<i>maristatus<sub>i</sub></i>	-0.0665 (0.0715)	-0.3430 (0.3678)	-0.0700 (0.0718)	-0.2203 (0.1485)	-0.0752 (0.0726)	0.7097 (0.2610)
<i>hsize<sub>i</sub></i>	0.0032 (0.0039)	0.0172 (0.0201)	0.0037 (0.0043)	0.0092 (0.0115)	0.0032 (0.0041)	1.0174 (0.0204)
<i>location<sub>i</sub></i>	-0.0750 (0.0648)	-0.3664 (0.3248)	-0.07783 (0.0690)	-0.2069 (0.1937)	-0.0731 (0.0684)	0.6932 (0.2251)
<i>health<sub>i</sub></i>	-0.3087*** (0.0735)	-1.7160*** (0.4503)	-0.2851*** (0.0534)	-0.9921*** (0.2469)	-0.2867*** (0.0540)	0.1798*** (0.0810)
<i>nutrition<sub>i</sub></i>	-0.1590*** (0.0426)	-0.7945*** (0.2276)	-0.1688*** (0.0477)	-0.4713*** (0.1318)	-0.1664*** (0.0463)	0.4518*** (0.1028)
Constant	0.5976* (0.2810)	0.5664*** (1.4103)		0.2711 (0.8445)		1.7619 (2.4848)
R <sup>2</sup>	0.1196					
Pseudo R <sup>2</sup>		0.1016		0.1013		0.1016
F	3.49***					
Chi <sup>2</sup>		34.60***		34.52***		34.60***
No. of Observation	268	268		268		268

Source: Author's Computation, 2014. \*\*\* Significant at 1%, \*\* Significant at 5%, \* Significant at 10%, Robust Standard Error in parenthesis

Table 5 shows the coefficient of household apprenticeship training to be positive but not significant in the rural households of Baruten. This implies that the apprenticeship training