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Research Article

Educational Attainment and Household Standard of Living in Nigeria

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ABSTRACT

In developing countries and Nigeria in particular more and more educated people are wallowing in poverty due to diminishing standards of living. Despite the launch and re-launch of the universal Basic Education scheme by successive government in Nigeria since 1999, inequalities relatively to standards of living chances have remained little altered. This study makes use of annual time series data sourced from the world bank development index (WDI) covering the period of 1981 to 2017. Jarque-Bera Normality test, Unit root test, test for multicorrelation, cointegration test were used for the pre-test while the Fully Modified Ordinary Least Squares (FMOLS) approach was used for the estimation. The result shows that educational attainment (β=0.029, t = 7.986, p < 0.05) and formal education complementary skills (β = 0.00001, t = 3.752, p < 0.05) exert a significant positive effect on household standard of living in Nigeria. Income redistribution (β =-0.019, t = -2.112, p > 0.05) does not show any effect on household standard of living in Nigeria. The study submitted that educational attainment and formal education complementary skills contribute positively to household standard of living. The need to create job for secondary school leavers some of whom may not be interested in further education to enhance the secondary school return to education was recommended.

Keywords: Education; Educational attainment; Standard of living; Household; FMOLS;

1. INTRODUCTION

Every individuals have certain basic needs without which life would be impossible, these life-sustaining basic human needs includes; Food, shelter, health and protection. A basic function of all economic activities, therefore, is to provide as many people as possible with the means of overcoming the helplessness and misery arising from a lack of food, shelter, health, and protection (Todaro and Smith, 2012). Therefore, improvement in standard of living constitutes to be the most important objective of development plans and programmes in both the developed and developing countries since it has been recognised as one of the important determinants of general well-being. Thus, the influence of standard of living in the expansion of business activities cannot be overemphasised as it provides information that indicates the level of consumption in the country. According to Ogwumu, Adeboye, Emesowum and Adeyefa (2013) household living standard refers to the level of wealth, comfort, material goods and basic necessities available to some socioeconomic class in a certain geographic area, usually a country which may be very high above 100% and very low closer to zero percent.

Education provides the foundation on which much of economic and social well-being of the citizens is built. Through education, the overall productivity and intellectual capability of the labour force can be improved and the competitive advantage of a nation in a world now characterized by changing technologies and production methods can be realized (Omoniyi, 2013). To corroborate this position Callander, Schofield, Shrestha and Kelly, 2012) pointed that education is associated with a number of specific benefits. Such benefits include lower crime levels (Lochner and Moretti, 2004), and higher levels of civic engagement and participation (Bynner and Egerton 2001), both of which are important determinants of better living standards for individuals and society. Thus, education is seen as an essential component of the wellbeing and living standards of individuals and a vital component for participation in modern society (Callander, Schofield, Shrestha and Kelly, 2012). Although education alone of course cannot transform an economy, the quality and quantity of investment, domestic and foreign, together with the overall policy environment, form the other important determinants of economic performance. Yet the level of human development through education and training has a fearing on these factors too. The quality of policy making and of investment decisions is bound to be influenced by the education of both policy makers and managers (Callander, Schofield, Shrestha and Kelly, 2012).

The linkages between education and poverty can be seen from the angle that investment in education increases the skills and productivity of poor households. It enhances the income level as well as the overall standard of living (Masood, Nouman, Haroon and Muhammad, 2011). At the individual level, education constitutes the foundation of one's professional career and also affects, among other things, life-time income, health, level of socialisation and his wellbeing over the whole life-cycle (Oshewolo, 2010). Education indirectly helps in the fulfillment of basic needs like water and sanitation, utilization of health facilities, shelter, and it also affects the women's behavior in fertility decisions and family planning (Jeffery and Basu, 1996). The direct effect of education on poverty reduction is through increasing the earnings/income or wages (Masood, Nouman, Haroon and Muhammad, 2011). The theoretical consequences of lack of education include low earning potential and poverty syndrome from generation to generation of the household (Masood, Nouman, Haroon and Muhammad, 2011).

In the past decades, substantial successful stories in Nigeria are traceable to well-educated workforce because of the sustained increase in productivity through well-educated labour force. The present situation in the country is such that more and more educated people are now wallowing in poverty due to diminishing standards of living (Moja. 2000). In the country, despite this upsurge number of tertiary institutions; enrolment rate; and increased graduate turnout, the issues of graduate unemployment and underemployment with their attendant consequences such as increased crime rate, unfulfilled dreams, suicide, impaired financial position etc) are posing a great challenge in Nigeria. Despite the launched and re-launched of universal Basic Education scheme in 1999 as one of the government top priorities, inequalities relatively to standards of living chances have remained little altered (Moja. 2000). Against the analytical background several studies conducted on the relationship between educational outcomes and household standard of living have found that education and educational outcomes do not only affects the economic welfare of households, but the real drivers of this effect are differences in the quality of education received or differences in skills that complement formal education of household members. However, studies have not documented the effect different levels of educational attainment have on the household standard of living in Nigeria. In order to address this gap the study examine the effect of educational attainment on standard of living utilising the World Bank different levels of education enrolment ratio which provided aggregate level data for educational attainment for the Nigeria as a whole available for a wider period 1981 to 2017.

The broad objective of this study is to examine educational attainment and household standard of living in Nigeria. The specific objectives are to: examine effect of education attainment on household standard of living, investigate the effect of formal education complementary skills on household standard of living and investigate the effect income distribution on household standard of living.

The study provides an addition to the stock of empirical studies for developing countries like Nigeria going beyond the commonly used two years interval data on living standard measurement survey by World Bank and comparing the effect of different levels of education attainment on standard of living and incorporating formal education complementary skills into the analysis. On the theoretical ground, this study innovation is the Mincerian function adapted in estimating returns to education based on time series data estimated through autoregressive estimation technique devoid of the challenges associated with survey data that is commonly used in estimating Mincerian functions in which educational attainmentis likely to be censored by construction because of the fact that a number of the potential sampled households may likely report zero earnings (or only positive earnings were observed in the survey) which makes the use of Ordinary Least Square (OLS) procedure for a censored dependent variable in a model yield inconsistent estimates from selection bias, since the Gauss-Markov assumption of zero correlation between independent variables and error terms will be violated (Ogundariand Aromolaran, 2014).

The study provides some important empirical justification for policies aimed at increasing household standard of living through enhanced investment in education as it will point whether or not higher educational attainment translate to improve standard of living and if it does which level of education contribute more significantly to household standard of living in Nigeria. The remaining section of this paper is organised such that following this introduction part is the literature review which is preceded by methodology. The remaining parts are results followed by discussion and conclusion.

Conceptually, household standard of living refers to the level of wealth, comfort, material goods and necessities available to some socioeconomic class in a certain geographic area. Standard of living is determined by a number of factors including education level, access to basic social and economic services, sector of employment, sex and ethnicity of household head, rural vs urban location among others (Olabode, Akintoye and Sanusi, 2015). In the measurement of standard of living several studies have used "naïve" indices to proxy or control for living standards, often constructed as the sum of indicator or dummy variables for whether a household possesses certain assets. However, an ideal measure of standard of living would have to include enjoyment of environmental amenities (such as clean air and water) and good health, and it would incorporate adjustments for demographics such as the differing consumption needs of children and adults. Many social surveys include a measure of years of fulltime education completed for the measurement of educational attainment. Qualification-based measures provide more detailed information about formal educational experiences. For example a qualification might be ranked by the average income of workers with that certain level of education. The main theoretical literatures on the standard of living are classical theory, neo-classical theory and behavioural/decision-based theory. Amartya Sen's Capability Approach argues that poverty is relative deprivation in terms of commodities, incomes and resources (Sen, 1983). He argues that the poor self-select into deprivation, which is not the result of market failure, but, rather, of their own effort and capabilities. Poverty is context-dependent on the means to end it, but it is not context-dependent on the non-material goals whose fulfillment characterizes poverty.

Looking at previous studies, in developing countries several studies abound on the determinants of educational attainment and standard of living. For instance, Awan, Malik, and Sarwar and Waqas examined the effect of different levels of education upon poverty in Pakistan.

It found that experience and educational achievement is negatively related with the poverty incidence in both years. Suryadarma and Suryahadi (2013) measures the relative role of poverty and cognitive skills on education attainment in developing countries. Plethora empirical studies have also been conducted in Nigeria focusing on determinants of educational attainment and standard of living. For instance, Sharimakin, Oseni and Adegboye (2015) examine the role of education and labour productivity on income inequality in Nigeria using data for the period 1981 to 2013. The study found that productivity has a stronger impact on inequality reduction than education. This implies that any policy that promotes education without the productive capacity of labour would not lead to reduction in inequality.

2. RESEARCH METHOD

This study used ex post factor research design in the analysis. The choice of this research design is because the design is a quasi-experimental study used to examine how an independent variable affects a dependent variable. The standard Mincerian function provides a standard theoretical framework to estimate returns to education (Ogundari and Aromolaran, 2014). The function in its standard form relates the logarithm of earnings (*Ei*) to the logarithm of years of schooling (*Ed*) and other *j*th control variables (*xj*) . The relationship is defined as:

$$Ei = \psi_0 + \beta_i Ed_i + \alpha_i x'j + \tau_i \quad (1)$$

whereβ and α_i are the parameters to be estimated, and $\tau_i$is the random error of the regression. The coefficient of the years of education (Ed_i) represented by β_i in equation (1), which also serves as a direct measure of the impact of education on labour market earnings, is referred to as 'returns to education' in labour economic literature (Ogundari and Aromolaran, 2014). The Mincerian function when extended or modified accommodate the different levels of educational attainment rather than a single value/aggregated year of education, often used to define a standard Mincerian function represented by equation (1) (Schultz, 2004; Ogundari and Aromolaran, 2014). Thus, the extended Mincerian function can be specified as follows:

$$Ei = \psi 0 + \sum_{k=1}^{k} \beta_{ik} \text{Edlevel (k)} + \sum_{j=1}^{j} \alpha_{ij} x_j' + \tau_i \quad (2)$$

Where *Ei*, *xj* and *τj* are as defined earlier; *Edlevel* is a dummy representing different educational attainment, namely: non-western education, primary, secondary, tertiary, and postgraduate education with no-schooling being the reference level. Because of the dummies introduced to represent different level of education attainment in equation (2), the estimated parameters *βik* cannot be interpreted as direct measure of returns to education. In this case, equation (3) is always used to compute returns to education or the effect of educational attainment on earnings in the labour economic literature, especially when dummy variables are used to represent various educational attainment (Schultz, 2004). Hence, the estimate of both the returns to education from equation (2) and the impact of education on household per capita total expenditure based Kimenyi et al. (2006), and Ogundariand Aromolaran, (2014) approach isdefined as:

$$IE_h = \frac{\exp(\beta_h - \beta_j) - 1}{y_h + y_j} \quad (3)$$

where *IEh* is the impact of the *h*th higher education, *βh* is the estimated coefficient of *h*th higher level of education (e.g. a dummy for completed secondary education); *.βj* is the estimated coefficient of the *j*th lower level of schooling (e.g. a dummy for completed primary education); *yh*is the total number of years taken to attain a particular level, *h*th, higher education; and *yj*is the total number of years taken to attain a particular level, *j*th, lower level of educational system (Ogundariand Aromolaran, 2014). This study offset the challenges associated with survey data that is commonly used in estimating Mincerian functions specified in equation (1) and (2) in which *Ei*is likely to be censored by construction because of the fact that a number of potential sampled households may likely report zero earnings (or only positive earnings were observed in the survey) which makes the use of Ordinary Least Square (OLS) procedure for a censored dependent variable in the equations yield inconsistent estimates from selection bias, since the Gauss-Markov assumption of zero correlation between independent variables and error terms will be violated by using annual time series data. In the current study, following from the theoretical framework and Ogundariand Aromolaran (2014) we modeled the relationship between educational attainment and household standard of living such that household standard of living HSL defined as household per capita total expenditure is a function of educational attainment EDA measured by secondary school enrolment ratio and formal education complementary skills EDCS measure by secondary vocational enrolment while incorporating income redistribution IRD measured as share of private consumption expenditure in total expenditure based on the work of Sharimakin, Oseni and Adegboye (2015) as explanatory variables in model one of the study. The model is specified as follows:

HSL = f(EDA, IRD, EDCS) (4)

The transformation of the above functional relationship into an econometric model yield equation (5)

$$\text{Log(HSL)} = \beta_0 + \beta_1 \text{Log(EDA)} + \beta_2 \text{Log(IRD)} + \beta_3 \text{Log(EDCS)} + \text{HSL}_{t-1} + \mu_t \quad (5)$$

Where:

HSL = Household Standard of living (proxy byHousehold per capita total expenditure (constant 2010 US$)

EDA = Educational Attainment (proxy by secondary school enrolment ratio)

IRD = Income Redistribution (proxy by share of private consumption expenditure in total expenditure).

EDCS = Formal Education Complementary Skills (proxy by secondary vocational enrolment.

Based on prior knowledge from economic theories the expected relationship among the variables is summarized as follows:

The theoretical expectations require that there should be a positive relationship between educational attainment and householdstandard of living. This implies that:

$$\frac{\partial \text{HSL}}{\partial \text{EDA}} > 0$$

It is expected that there should be a positive relationship between income redistributionand household standard of living. This implies that:

$$\frac{\partial \text{HSL}}{\partial \text{IRD}} > 0$$

It is expected that there should be a positive relationship between formal education complementary skills and household standard of living. This implies that:

$$\frac{\partial \text{HSL}}{\partial \text{EDCS}} > 0$$

The study used annual time series data covering 34 years period from 1981 to 2017. The choice of the base year (1981) and end of period (2017) is premised on the need to cover the major educational reform policies in Nigeria directed at revitalising the educational system and enhance educational outcomes among which include Nigeria's National policy on Education published in 1977 revised in 1981 and 1990 and the re-instatement of the National Primary Education Commission and other management structures in 1993. The data used for analysis are compiled from the World Bank (World Economic Indicators). Details of the data measurement and sources are summarized in Table 2.

Table 2. Data and sources and Measurement

No.	Variable	Symbol	Operational Definition	Studies with similar definition	Source of Data
1	Household Standard of living	HSL	Household per capita total expenditure (constant 2010 US$)	Ogundariand Aromolaran (2014) Adekoya (2014)	WDI (2018)
2	Educational Attainment	EDA	Secondary school enrolment ratio	Sharimakin, Oseni and Adegboye(2015)	WDI (2018)
3	Income Redistribution	IRD	Share of private consumption expenditure in total expenditure	Sharimakin, Oseni and Adegboye(2015)	WDI (2018)
4	Formal Education Complementary Skills	EDCS	Secondary vocational enrolment		WDI (2018)

Source: (Author, 2019).

The secondary vocational enrolment measure the number of secondary students enrolled in technical and vocational education programs, including teacher training. In the estimation both the Fully Modified Ordinary least squares (FMOLS) cointegration approach was used as suggested by the unit root test. The choice of this technique was because the method modifies least squares to account for serial correlation effects and for the endogeneity in the repressors that result from the existence of a cointegrating relationship. When there is some cointegration in the system, FMOLS estimation has a limit theory that is normal for all of the stationary coefficients and mixed normal for all of the non-stationary coefficients. Moreover, optimal estimation of the cointegration space is attained in FMOLS regression without prior knowledge of the number of unit roots in the system, without pretesting to determine the dimension of the cointegration space and without the use of restricted regression techniques like reduced rank regression.

3. RESULTS AND DISCUSSION

3.1 Pre-estimation Tests

The results of the Jarque-Bera test of normality to establish the nature of the distribution of the data is presented in table as follows.

Table 3. Descriptive Statistics

	HSL	EDA	IRD	EDCS
Mean	1443.526	32.19524	9.028159	95.17644
Median	1520.000	34.70000	8.793968	92.90000
Maximum	1740.000	43.80000	22.28820	113.0000
Minimum	802.0000	17.00000	0.076487	82.80000
Std. Dev.	255.4735	7.288833	8.389175	10.51272
Skewness	-1.018197	-0.528754	0.253734	0.458153
Kurtosis	3.509657	2.283578	1.577729	1.765195
Jarque-Bera	3.488601	1.291670	1.805299	1.871785
Probability	0.174767	0.524225	0.405494	0.392236
Sum	27427.00	611.7096	171.5350	1808.352
Sum Sq. Dev.	1174801.	956.2875	1266.809	1989.310
Observations	19	19	19	19

Source: (Author, 2019).

The results of the descriptive analysis as presented in Table 4 based on the values of the Jarque-Bera statistics showed that all the variables in the data set are not normally distributed since their p-values are not statistically significant at 5% level of significance. Hence, the result shows that household standard of living, educational attainment, income redistribution ion formal education complementary skills are not normally distributed. This result suggests the need to correct the issue of normality in the data set through the stationarity test and the selection of estimation techniques that account for the issue of normality. The correlation analysis helps to detect whether the variables have the problem of multicorrelation which occurs when the correlation coefficient is above 0.95 (Iyoha, 2004). The result of the multicorrelation tests using the correlation matrix to determine the direction and strength of the association among the variables is presented in **Table 4** as follows:

Table 4. Correlation Matrix

	HSL	EDA	IRD	EDCS
HSL	1			
EDA	0.328345	1		
IRD	0.160666	-0.376678	1	
EDCS	-0.225886	-0.724191	0.734300	1

Source: (Author, 2019).

The results as presented in Table 4 showed that the correlation coefficients for the relationship among the variables household standard of living, educational attainment, income redistribution, formal education complementary skills are below 0.95 indicating the absence of the problem of multi-correlation among the independent variables. While formal education complementary skill showed negative association with household standard of living, the association between household standard of living and other variables were positive. The choice of an appropriate lag is an important issue in autoregressive models. This is because too many lags would deplete the degree of freedom while too few lags may adversely affect the size of the test (Iyoboyi & Muftau, 2014). The results of lag-order selection criteria for the estimated model are presented in Table 5.

Table 5. Lag Length Criteria

Lag	Log L	LR	FPE	AIC	SC	HQ
0	-348.4337	NA	4.44e+09	33.56511	33.76407	33.60829
1	-281.1682	102.4998*	34915557*	28.68268*	29.67747*	28.89858*

Source: (Author, 2019).

Based on the result in table 5 a maximum of 1 lag as suggested by sequential modified LR test, Final prediction error, Akaike information criterion (AIC) and Hannan-Quinn information criterion (HQ) was used in the analysis. The unit root test result using Augmented Dicker Fuller (ADF) to examine the stationarity of the chosen variables are presented in Table 6 as follows:

Table 6. ADF Unit Root Test Results

	Variables	ADF Test (Value)	Critical Value (5%)	Order	Stationary at
@ Level	HSL	-0.392622	0.5347	-	-
	EDA	1.110345	0.9248	-	-
	IRD	-1.528403	0.1168	-	-
	EDCS	0.107609	0.6919	-	-
@ First Diff	ΔHSL	-8.670898	0.0000	I(1)	1st Diff
	ΔEDA	-3.492495	0.0016	I(1)	1st Diff
	ΔIRD	-3.916578	0.0003	I(1)	1st Diff
	ΔEDCS	-2.359217	0.0269	I(1)	1st Diff

Source: (Author, 2019)

The results of the Augmented Dickey Fuller (ADF) unit root test showed that all the variables in the data set are non stationary at level at 5% level of significance. But after taking their first difference, all the variables become stationary. Hence, the result of the ADF unit test for the first model showed that all the variables (household standard of living, educational attainment, income redistribution ion formal education complementary skill) are stationary only at first difference [I (1)] at 5% level of significance. The result necessitated cointegration approach for the data analysis which informed the cointegration test, error correction modelling and choice of the fully modified OLS (FMOLS) estimation technique for the first model. The cointegration test was conducted using the Johansen cointegration test to investigate the existence of cointegrating relationship (long run association) among the variables. The null hypothesis state that "there is no cointegration among the variables" The result of the cointegration test is presented as follows:

Table 7. Johansen Cointegration Test Results

		Trace		Max-Egen		
Hypotheses	Eigenvalue	Λ_{trace}	Critical Value(t) (0.05)	Eigen value	Λ_{Max}	Critical Value (t) (0.05)
None *	0.879051	51.31619	47.85613	0.879051	31.68576	27.58434
At most 1	0.680919	19.63044	29.79707	0.680919	17.13464	21.13162
At most 2	0.131796	2.495801	15.49471	0.131796	2.119933	14.26460
At most 3	0.024747	0.375868	3.841466	0.024747	0.375868	3.841466

Source: (Authors, 2019).

Note: r indicates the number of cointegrating vectors; Λ_{max} denotes maximal eigenvalues and Λ_{trace}trace test statistics.

The Johansen cointegration test result using both the trace and Max-eigenvalue tests as reported in table 7 indicate that the rejection of the hypothesis of no cointegration among the variables since P>0.05. From the result, both the trace statistics and Max-eigenvalue tests indicates that there is at least one cointegrating vector among the variables. This confirms the existence of a long run relationship (cointegration) among the variables in the model. This necessitated the use of Error Correction Model (ECM) or Vector Error Correction Modelling (VECM) to account for the relationship in the long-run and to determine speed of adjustment to long run equilibrium values of the variables. The study used Error Correction Model (ECM).

Table 8. Error Correction Estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECM(-1)	-0.125040	377.3274	-2.507438	0.0251
D(EDA)	3.706606	19.28742	0.192177	0.8504
D(IRD)	3.976555	23.22169	0.171243	0.8665

D(EDCS)	0.004592	0.006853	0.669978	0.5138
C	-1.717740	54.77914	-0.031358	0.9754
R-squared	0.406248			
Adjusted R^2	0.236604			
Akaike info criterion	13.69056			
Schwarz criterion	13.93910			
Durbin-Watson stat	2.896613			

Source: (Author, 2019)

The error correction model is estimated as shown in Table 8 above is found to be significant and correctly sign with probability value of 0.0251. The error correction term (ECM (-1)) of -0.125040 suggests that the model returns to equilibrium following an exogenous shock and also shows that it will take about 32164 years for the model to converge to long run equilibrium with a speed of adjustment of about 12 percent.

3.2 Empirical Results

To examine the effect of educational attainment on household standard of living and investigates the effect of formal education complementary skills on household standard of living in Nigeria as formulated in the model is analyse using Modified Ordinary least squares (FMOLS) cointegration approach as presented in table 9:

Table 9. Fully Modified OLS Estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EDA	0.029055	0.003638	7.985934	0.0000
IRD	-0.019354	0.009164	-2.112078	0.0546
EDCS	1.25E-05	3.33E-06	3.751975	0.0024
C	6.275087	0.125751	49.90076	0.0000
R-squared	0.555082			
Adjusted R^2	0.452409			
Long-run variance	0.004440			

Source: (Author, 2019)

The results obtained from the analysis at 5% level of significance showed that educational attainment (β=0.029055, t=7.985934, $p < 0.05$) and formal education complementary skills (β=0.0000125, t=3.751975, $p < 0.05$) exert a significant positive effect on household standard of living in Nigeria. Income redistribution (β=-0.019354, t=-2.112078, $p>0.05$) does not showed a significant effect on household standard of living in Nigeria. The result showed that a 1% increase in educational attainment will lead to about 3% increase in household standard of living whilea 1% increase formal education complementary skills, will lead to about 0.0013% increase in household standard of living in Nigeria. The implication of this result is that educational attainment and formal education complementary skills contribute positively to household standard of living. That is, there is positive return to formal and vocational education in Nigeria

4. CONCLUSION

The estimated result using the Fully Modified Ordinary Least Squares (FMOLS) showed that educational attainment (β=0.029055, t = 7.985934, $p < 0.05$) and formal education complementary skills (β=0.0000125, t=3.751975, $p<0.05$) exert a significant positive effect on household standard of living in Nigeria. Income redistribution (β=-0.019354, t=-2.112078, $p>0.05$) does not showed a significant effect on household standard of living in Nigeria. The implication of this result is that educational attainment and formal education complementary skills contribute positively to household standard of living. That is, there is positive return to formal and vocational education in Nigeria. Similar relationship was established by Carlson and McChesney (2015) on the sustainability of income, as it relates to educational attainment, from the two recent decades, which includes three significant economic downturns. The research supported a positive correlation between education levels and salaries, independent of economic conditions in the United States. Thus, the higher the education level achieved, the higher the earnings, and the lower the volatility during periods of economic downturn. Furthermore, the results indicated that a Bachelor Degree only ensured equilibrium with inflationary increases over the two decades. The real earnings, adjusted for inflation, of all educational levels below the Bachelor's Degree declined over the twenty year period. Thus, the wealth gap is increasing as real earnings have stayed constant or declined for nearly 90% of all workers

in the United States. The result also corroborated the findings of Suryadarma and Suryahadi (2013) on measures the relative role of poverty and cognitive skills on education attainment in developing countries. The study finds that a skill accrued by an individual at the time he or she completes primary school has a large and positive effect on secondary school completion. Furthermore, the results show that a higher skill is able to compensate for the adverse effect of poverty on junior secondary school attainment. Finally, the effect of poverty on senior secondary completion is small and statistically insignificant.

RECOMMENDATIONS

The study infers based on the result that educational attainment and formal education complementary skills contribute positively to household standard of living. That is, there is positive return to formal and vocational education in Nigeria. In addition, in the short run only the improvements in economic welfare of households in Nigerian is driven more by the attainment of tertiary education by household heads, relative to other levels of education. The policy suggestions emanating from the above findings to stimulate the level of education and raise the household standard of living are: It is very imperative for government to review policies on tertiary school graduate with major emphasis on issues such as terms and condition of employment, pension scheme and payment of gratuity to ensure that tertiary education is reposition is such a way that it can have long-run positive contribution to household standard of living and there is also the need to create job for secondary school leavers some of whom may not be interested in further education to enhance the secondary school return to education.

AUTHOR'S CONTRIBUTIONS

Author 1: Data collection; Author 2: Literature review; Author 3: Introduction; Author 4: Data analysis, Author 5: Material Sourcing. All authors discussed the results and contributed to from the start to final manuscript.

CONFLICT OF INTEREST

The authors declare that they have no competing interests.

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