

# Trends Analysis of Government Expenditure on Education

## In Akwa Ibom State of South-south Nigeria

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### Abstract

The indispensable role of knowledge in this global era where every aspect of the world has been digitalised cannot be compromised with. This is because, knowledge is one of the key factors of economic development. This is because no country can achieve sustainable economic development without investment in education. The objective of this study was to carry out a trends analysis of government expenditure on education in Akwa Ibom State of South-South Nigeria. Secondary data employed were from Niger Delta citizens and Budget platform, National Bureau of Statistic's Human Development Index 2018 Report, Federal Ministry of Education and Akwa Ibom State Ministry of Finance. The data collected were analyzed using Ordinary Least Square, the result indicated that government education expenditure boost economic development but the impact is fairly small. While the result on secondary schools enrolment [SSE] showed a positive impact on economic development, primary schools enrolment [PSE] weakens economic development. Arising from the finding, the study recommends that the mechanism through which education funding are disbursed should be efficient to adequately serve all sub-sectors in the education sector for even economic development.

**Keywords:** Trends Analysis; Government Expenditure; Education; Akwa Ibom State; South-South Nigeria.

### 1. Introduction

Fiscal operations and developments of Nigeria and in Akwa Ibom State revealed that government expenditure in education is categorized under the social and community services sector. The implication is that education is an impure public good [17]. Public education expenditure has been considered as a key aspect of fiscal outlays in most developing countries of the world. Hence, education has been found to have high economic value.

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The importance attached to education by any dynamic society stems from the fact that education is a means to understanding, controlling, adhering, redesigning of human environment, health, productivity and access to paid employment [18]. This shows that increase in national income, life expectancy and per-capita income is a function of education. Education has a link with economic development [17], opine that “if you see any economy that is not doing well, find out what is spent on education”. Differences among nations can better be explained by differences in the endowments of human, rather than physical capital. This underscores the reason why the ‘Asian Tigers’ in the past three decades allocated between 25-35 percent of their annual budget to their education sector [16].

The provision of education is a key element of a policy to promote wide-based economic growth and development. Education plays a significant role in the economy of a nation, hence educational expenditures are found to constitute a sound economic investment for individual and the economy. This augments individual’s human capital and results to greater output for the society and enhanced earnings for the individual workers. For instance, [9] sees expenditure on education as an investment in human capital because it helps in skill formation and raises the ability to work and produce more through high literacy and numeracy levels. Considering the critical role and externalities prevailing in education, it is generally accepted that government has a major role to play in guaranteeing that educational opportunities are equitable distributed. In the developing countries, of which Nigeria is a part, improving the widening access to education especially basic education is a cardinal objective of their government. Education is seen as right and responsibility to be guaranteed to all generations [5], however in Nigeria, elements of doubt have be clouded the education sector. This must also be true of Akwa Ibom State as an integral part of Nigeria. As observed by the Office of the Honourable Minister, Federal Ministry of Education [11]. “Schools at all levels lacked teachers and basic infrastructure; the schools suffer from over-crowding, poor sanitation, poor management; and other forms are abandoned capital projects, inadequate funding, poor condition of service etc”. Also, statistics from Nigeria’s [12] shows that about 60million or 30% of the population are illiterates, this may have been attributed to poor funding of the education sector both at federal and state levels.

Recently, various attempts have been made to investigate the extent to which government activities affect growth and development of the economy. For instance, various studies indicate that public expenditure is positively related to economy growth and development. In this vein, a study by [19] analyzed government expenditure on education and economic development in Nigeria from 2000-2015, the study employed multiple regression and student t-test. The result indicated that expenditure on education is significant and impact on the economy. The study concluded that anti-graft fight by the present government to encourage proper use of resources allocation has to be encouraged by all good citizens and lovers of education. [13, 14] investigated the likely impact of education expenditure on economic growth as means of achieving the desired socio-economic change needed in Nigeria. Time series data from 1981 to 2012 were employed, Johanson’s co-integration and Ordinal Least Square [OLS] were used to analyze the relationship between GDP and recurrent education expenditure. The results of the study indicated a positive relationship between education expenditure and economic growth. The conclusion was that educational sector in Nigeria has not performed as expected. The study therefore suggested a total review and overhauling of the education system through efficient use of public resources good governance, accountability and transparency. It is on this background that the study sought to

carry out a trend analysis of government education expenditure in Akwa Ibom State and the implication it holds for economic development.

## **2. Review of related literature**

### **Government education expenditure**

Government expenditure or public expenditure refers to a single concept that denotes the total amount spent by the public sector on the acquisition of goods and provision of services such as education, healthcare and social services. It connotes the outflow of resources from government to the various sectors of the economy [13]. Government expenditure on education involves the current and capital expenditure on education together with government spending on educational institutions [both public and private], education administration as well as subsidies for private entities. Percentage of government budget on education provides a measure of the government commitment to education in a particular state. It, as well provides an important background for assessing the degrees of educational involvement and outcomes in a country.

### **Economic development**

The concept economic development has been variously defined, it can be explained as the process by which a nation improves the economy, political, and social wellbeing of the citizenry. Economic development is a policy intervention which focuses on social wellbeing of people, while economic growth is a phenomenon of making productivity and rise in the quality of goods and services [Gross Domestic Product] and a rise in per capita [GDP per capita]. According [10] economic development is a broader concept that focuses on human welfare, indices such as life expectancy, access to and quality of healthcare and education. The most common and widely used measure of economic development is per capita income of a country based on Gross National Income [GNI] and based on Gross Domestic Product [GDP]. But, Pakistani Economist, Dr. M. Haq argued that the widely used measure of economic development failed to adequately measure economic welfare. Consequently, Human Development Index [HDI] was introduced in 1990 to measure a country overall achievements in social and economic dimension [health, education and income]. UNDP [2012], defined the concept to human development index as “a summary composite index that measures a country’s average achievement in three basics aspects of life expectancies, education and per capita income.

### **Educational Development and Role**

The significance of education in economic development cannot be overstressed because its benefits both the individual and the economy, while the individual benefits through higher earnings and better employment, the economy benefits through higher productivity [1]. In earnest, education in every sense is one of the fundamental factors of economic development. Education improves the individual to be useful, and desirable in his society and its economic contributions benefit both individual and society [15, 22, 7].

Education contributes immensely to technology development. It provides technology literacy for everyday living. Also, in the new technology driven world, education plays significant roles to technology mastery,

acquisition, adaption, and capital widening. As a matter of fact, an educated individual is more efficient with higher production capital. The significance of education can also be perceived in the availability of essential human capital which is a prerequisite to drive the process of economic growth and development. [20] asserts that the pace at which country generates the processes which lead to suitable economic growth and development depends largely on the quantum, quality and diversity of its human resources endowment, which to a large extent, determines technological changes. Country, desiring to attain economic development needs to acquire skilled man power [people], which is basic ingredients for economic development; and education plays a key role in skills acquisition.

**Education in Akwa Ibom State**

The state educational system involves three sectors: basic education covers nine years of formal [Compulsory] schooling consisting of six years of elementary and three years of junior secondary; post basic education includes three years of senior secondary education; and tertiary education consists of a university sector and non-university sector while the latter is composed of polytechnic, colleges of education and Monotechnics. The education sector of concern in this study is limited to basic education [primary and secondary schools]. Table 1 presents the total number of primary schools and secondary schools enrolment from 2007 – 2017.

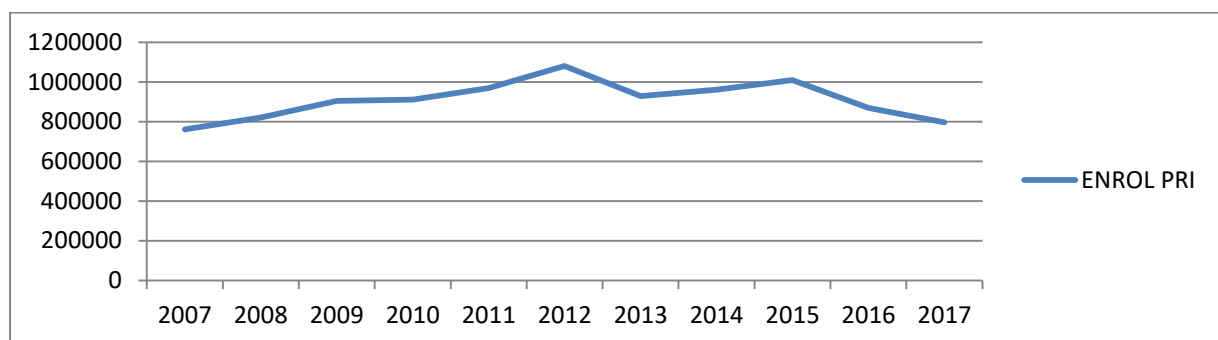
**Table 1:** Trend in Government Expenditure on Education, school enrolment and Human Development Index [HDI] in Akwa Ibom State 2007 – 2017

Year	HDI	Total Gov't Exp. [₦B]	Total Exp. On Edu. [₦B]	% On Edu.	Primary Sch. Enrolls.	Secondary Sch. Enrolls.
2007	0.576	184.03	9.9	5.4	761422	150692
2008	0.616	245.14	15.8	7.2	820979	22118
2009	0.621	283.810	10.7	3.8	905029	278494
2010	0.585	298.52	7.7	6.4	910593	321223
2011	0.598	330.00	16.1	6.0	968649	332566
2012	0.573	533.31	16.7	6.0	1079199	341806
2013	0.604	540.10	20.4	3.8	928290	367401
2014	0.592	469.90	10.9	8.0	960327	392512
2015	0.628	484.1	16.9	13.0	1008339	401201
2016	0.564	426.0	9.9	10.0	868149	215187
2017	0.650	365.25	8.6	2.4	795582	-

**Note:**

Data for HDI [3]. Data for Government Education Expenditure in Akwa Ibom State, adapted from NDCBP [3] and [4]. Data for primary schools and secondary schools enrolment, adapted from [4]. Percentage expenditure on Education is computed by the Author.

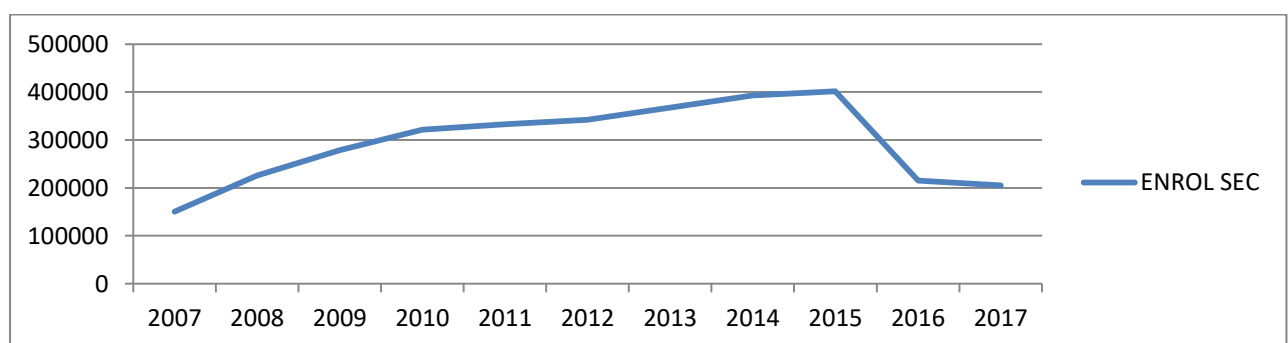
As table 1 depicts, between 2007 and 2009 a total of 2,487,430 pupils enrolled in primary schools and 655,304 students enrolled in secondary schools. The total numbers of primary and secondary schools enrolment rose to 4,847,038 and 1,755,508 respectively from 2009 to 20014. The trend increased to 5,855,377 and 2,156,709 respectively by 2015. The trend shows that there has been an increase in the enrolment of primary and secondary schools in the state. The high enrolment in both primary and secondary schools in the state could be best explained by the education policy of the free and compulsory education in the state. The scheme was launched in 2009 with distribution of free exercise books to schools, science and introductory technology equipment for science laboratories and technology workshops, etc. Other components of the policy are payment of NECO/WAEC and NABTEB fees to all students taking this examination in public schools, and the provision of subvention to schools to assist head teachers and principals to provide some logistics.



**Figure 1:** Primary Schools Enrolment Growth in [4].

Note: Primary schools enrolment growth in Akwa Ibom state [3].

The graph of figure I above shows enrolment growth in primary schools in Akwa Ibom State the trend shows a consistent increase in primary schools enrolment since 2007 up until 2015.

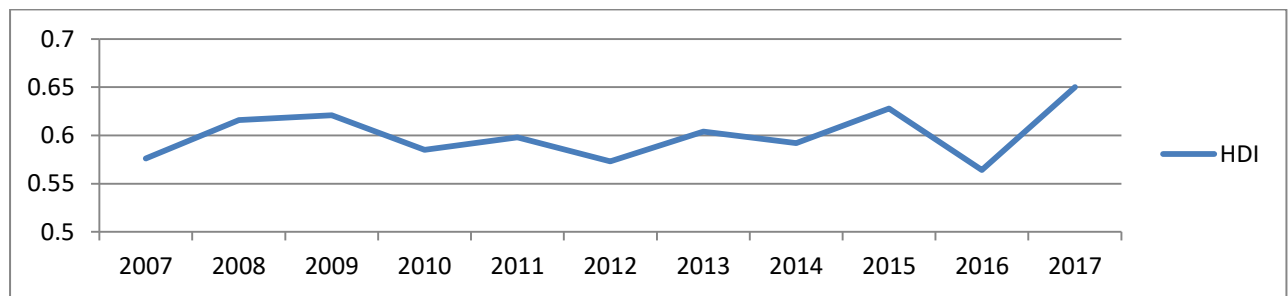


**Figure 2:** Secondary Schools Enrolment Growth in Akwa Ibom State 2007 – 2017.

Note: Secondary schools enrolment growth in Akwa Ibom state 2007 – 2017. Adapted from *FME* [4].

Figure 2 shows the growth in enrolment in secondary schools in Akwa Ibron State. The trend shows an increase in students' enrolment rate in secondary schools from 2007 to 2015, this can be attributed to the free and

compulsory education policy of the state and the payment of NECO/WAEC fees to students.



**Figure 3:** HDI growth rates in [3].

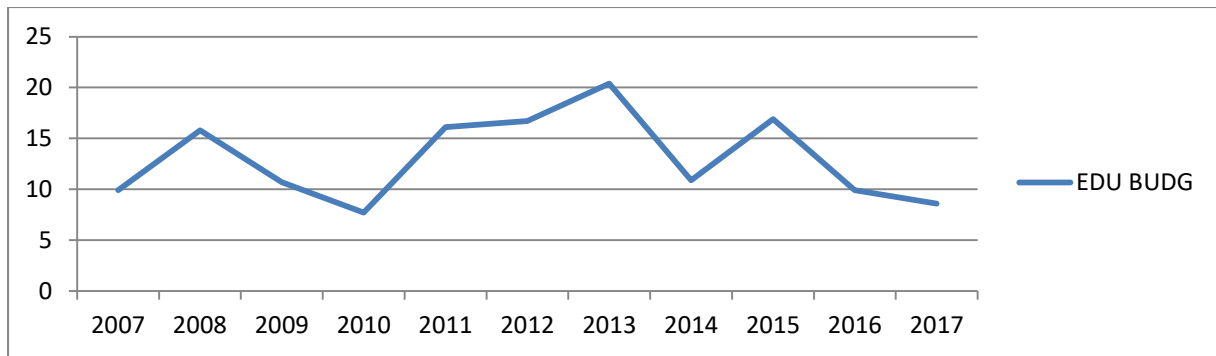
Note: HDI rates in [3].

Figure 3 presents the HDI growth in the state during the year under study. In this study, HDI is used to proxied GDP as it attempts to capture the multidimensional capacity approach to economic development. HDI entails broader aspects to development including life expectancy, education and income. The growth rates of the state fluctuated severally during the study period. Akwa ibron State is one of the states in South zone with high HDI, and has the best performance with regards to HDI. This is as a result of adult literacy, good resource endowment state capacity per capita, etc. Good performance in literacy rate, low infants mortality and education performance are factors for high HDI. The data presented in figure 3 shows a significant growth during 2007 – 2009 and a slowed growth during the years 2010-012. However, the years 2013, 2015 and 2017 experienced very significant growth rates.

Despite these growth rates, unemployment rate is high in the state; because development rate is not sufficient to absorb additions to labor force and stabilize unemployment. The effects of this will be low quality of life in the state

### 3. Government Education Expenditure in Akwa Ibom State

The state government is the sole financiers of educational sector in Akwa Ibom State. It pays salaries of teachers, builds school blocks, renovate dilapidated structures and also pay examination fees for students. Immediately after the free education policy were announced, enrolment in primary and secondary schools in the state jumped. The state government has not doubled the share of government budget dedicated to education despite the increasing enrolment in schools. However, quite a significant amount of money has been earmarked for the educational sector, so as to enhance and develop human capital for economic development in the state. A trend analysis of the facts and figures in table I is presented in figure 4 to gain insight into what characterized the educational expenditure in Akwa Ibom State. In 2007, almost ₦184 billion was budget for the fiscal year, less than 10billion was allocated to education sector. By 2011 total education expenditure increased to ₦16billion rising to 17billion and 20billion in 2017 and 2013 respectfully; it must has been influenced by inflow of 13 percent derivation fund paid to oil producing states by the Federal Government and petrol dollar of the time.



**Figure4:** Education Budget in Awa Ibom State 2007 – 2017.

Note: Education budget in Akwa Ibom State 2007 – 2017. Adapted from NDCBP[2013] and Akwa Ibom State Ministry of Finance [2017] Figure 3 shows that on average, government spent 5.76 percent of total expenditure from 2007-2011 on education. The figure rose to 7.7 percent between 2012 and 2015, but dropped to 6.2 percent in 2016-2017. All these fell short of the UNESCO stipulation of a minimum of 26 percent of total government spending to be allocated to education. With the commitment of such meager resources to the education sector of the economy, it becomes clearer why the output from the sector is dwindling in quality.

#### 4. Research Methods

The research design employed in this study is the ex-post-facto research design. The ex-post-facto design was adopted on the basis that it does not provide the study the opportunity to control the variables mainly because the data are collated after the events of interest have occurred. Multiple regression analysis was used to analyze data obtained to determine the relationship between the variables identified. The data used in this study were largely secondary data, which were obtained from Akwa Ibom Ministry of Finance, Federal Ministry of Education, National Bureau of Statistics and Niger Delta Citizens and Budget-platform. The econometric modeling procedure adapted for the paper is Ordinary Least Square [OLS]. The specification is being guided by existing theory or empirical evidence from previous studies.

$$\begin{aligned}
 \text{HDI} &= f[\text{GEE, PSE, SSE}] \text{-----[i]} \\
 &= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + ut \text{-----[ii]} \\
 &= \beta_0 + \beta_1 \text{GEE} + \beta_2 \text{PSE} + \beta_3 \text{SSE} + ut \text{-----[iii]}
 \end{aligned}$$

Where:

HDI = Human Development Index [proxy for economic development]

GEE = Government Education Expenditure

PSE = Primary School Enrolment

SSE                    SSE =    Secondary School Enrolment

A prior expectation are  $\beta_1, \beta_2, \beta_3 > 0$ . This implies that all the independent variables in the model have positive relationship with economic development.

**5. Regression Analysis Results and Discussion**

The output of the multiple regression analysis conducted using data presented in table 1 are presented and discussed below.

HDI = 0.744839 - 2.47048PSE + 2.27177SSE + 0.00105548GEE					
[10.28]		[-2.455]	[1.789]	[0.8970]	t-ratio
	0.000015	0.0438	0.1168	0.3995	p-values
		R <sup>2</sup> 0.491397			
		F[3.7] 2.362289			

Durbin Watson 2.332696

The results generated from a ten year period [2007-2017] clearly indicates that government expenditure on education boost Human development index which is proxy of economic development. However, as the result shows, the impact will be fairly small. A unit rise in government education expenditure in Akwa Ibron will drive development forward by a paltry 0.001 basis point, an effect largely infinitesimal. This result is consistent with the result of [19], which reported that government expenditure on education is significant and impact on the economic development. Hence, increased government expenditure on education would boost educational accessibility. As such, more citizens will gain educational enrolment which will ultimately drive development higher. As indicated in the result, higher school enrolment was seen for the secondary schools category. Explicitly stated, higher secondary schools enrolment over the ten-year period impacted positively on economic development of the state. A one percent increase in secondary schools enrollment in the state grows economic development by 0.023 percent point. This result is statistically significant at five percent level of significance. However, the positive effect of expenditure on education did not improve enrolment in primary schools for development. Primary schools enrolment weakens economics development in the State to a tune of 2.5 basis points over the ten years period and statistically significant, this result is in tandem with that of [9]. The outcome is not gotten by chance. State’s education statistics report [11], shows that teachers to pupils enrolment ratio declined for the 2007/2008 to 2012/2013 academic sessions continuously from 0.0199 in 2007/2008 school year to as low as 0.0135 in 2012/2013 school year. The result also indicates that, although the government expenditure on education may be rising, not all sub-sectors in the education sector may be adequately served to cater for even economic development. This point to a weakness in the channels of education fund disbursement which should be addressed speedily if education expenditure is to achieve even educational development for overall economic development in the States. Furthermore, our R<sup>2</sup> of 0.49 indicates



that nearly half of the variations in economic development in the state are accounted for by variations in educational related development in the state. Our DW of over 2.3 indicates that our model was well specified as to overcome autocorrelation among the included variables.

## **6. Conclusion and Recommendation**

The result above shows that government expenditure on education in Akwa Ibom State boosts economic development even though the impact is fairly small. Importantly, secondary schools enrolment [SSE] has positive impact on economic development in the state while primary schools enrolment [PSE] weakens development. The study advanced reasons such as shortfall of teachers in government primary schools, weakness in channel of fund disbursement, inadequate government allocation to the education sub-sector and poor learning environment are some of the probable factors that have made this impact to be weaker rather than being strong. Based on the conclusion, the study recommends that the mechanism through which funding is disbursed should be effective and efficient as it plays key role in achieving even educational development for overall economic development in the state. The enrolment of pupils and students in government schools has to be encouraged through adequate provision of learning materials, conducive learning environment and motivation of teachers by way of prompt payment of salaries. Also adequate number of qualified teachers should be made available to schools, the teacher students' ratio of 1:36 UNESCO's standard should be maintained. Furthermore, at least 25% of the annual budget should judiciously be allocated, disbursed and spent on free and compulsory Education in the state.

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