

## **Economic Recession and Science Students' Enrolment in Senior Secondary School in Nigeria**

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**ABSTRACT:** *The study investigated economic recession as a determinant of Science Students' Enrolment in South West Nigeria. The research design of the expo-facto type was adopted for the study. The study population consisted of all public Senior Secondary School Science Students in South West Nigeria. This entails 360 science students who enrolled for 2017, 2018 and 2019 sessions in the stated schools. The selection of the schools was done through Multistage Sampling procedure. A research question was raised and three research hypotheses were formulated for the study. Inventory of Senior Secondary School Science Students Enrolment-list (ISSSSSE) was used as an instrument for data collection. Data collected were analysed using Percentage, Mean, Standard Deviation and t-test. Findings from the study revealed that economic recession determined the numbers of science students who enrolled in these three consecutive years used for the study. Also, a significant difference was recorded in science students' enrolment in urban and rural areas in favour of urban area. Gender has no significant difference on the enrolment of science students based on the result from the findings. It was recommended based on the findings that government should avert any problem that could result into economic recession for sustainable development of education. Also, government should try to make policies that will favour social-economic development in the rural areas of the country. Parents should have a sort of understanding that science subjects are not just for the male child, but that girls can as well perform excellently in science subjects.*

**KEYWORDS:** Economic Recession, Determinants, Science Students and Enrolment

### **INTRODUCTION**

Education is essential for every society and individuals; it forms a fundamental legacy that a nation can give its citizens. Education is a life itself but not a preparation for life as it is evident that, education helps to equip and rebuild lives with sufficient knowledge to reduce inequality as well as ignorance in the society. Education provides people with cognitive, affective and psychomotor skills, all of which combine to drive local economy. Batik (2012) ascertained that overall skills of

local labour force are an important factor determining job growth and improvement in wages. The other part is the externalize effects of education of an educated person or other individuals in his environment. The education received by one person increase the skills of other persons thereby increasing the employment rates. Ozturk (2011) ascertained that attainment of primary and secondary school education is correlated with productivity of workers in all sectors of economy..It is widely acknowledged that science is important for a country's economic and technological development. Science has evolved to become one of the crucial and significant fields of human activities. Science education is expected to expose the students to scientific nature (facts, principles and concepts), processes, attitudes and then equip students with skills of competent scientist.

Economic recession in a layman point of view can be a situation of reduced economic activities, a circumstance in which there are challenges in the economic activities of the nation. Economic recession was conspicuous in the year 2016 in Nigeria according to National Bureau of Statistics, and this was noticed by the challenges in the life of the citizens. The causes of Nigeria's economic recession as observed are; inadequate and poor implementation of economic planning, high interest rates, inflation, high taxation and conflict in policies just to mention few. Infliction caused by the economic recession in Nigeria according to Adeosun (2016) shows the following indicators which include massive lay-off of workers in the bank and financial institutions, inability of the government to pay salaries, job loses, borrowing of funds to implement budget etc.

Due to the economic crisis, Nigeria's educational system is nearly entirely dependent on government funding which definitely will have effects on the teachers, students and the family at larger. Economic recession which has negatively affected many economies globally has also resulted in a glaring imbalance in Nigeria which influences science students' enrolment into secondary school. The parameters for identifying the human development of a nation are the quality of education, quality of health and quality of income. There cannot be economic growth in a nation, society with poor education, health, food, income, security and unemployment. It appears that all these could be attributed to the level of science students' enrolment into secondary school in South West geopolitical zone of Nigeria.

Education has better and direct link with economic development. Also, welfarist economics have believed that education has relationship with economic growth. No wonder, Obayan (2006) ascertained that education is capable of economic analysis, economic orientation and that it controlled by market mechanism. Education outcomes are greatly influenced by the income of the family; where most Nigerians are not financially buoyant due to the present economic recession. Oriakhi (2013) observed that the depth, incidence, timing, and duration of unsatisfactory income all affect a child's access to education. According to the report from Patrinos (2016) it was stated that N5.6 million is spent on education globally and that the government spends average of 50% of Gross Domestic Product and average of 20% of national budget on education. He went further to ascertain that human capital account for 62% of total wealth. The scholar said that every

additional year of education increase earnings by as much as 10%. He added that educational investment yields per annum more than any other types of investment.

The secondary school level of education system is seen as a tool by which a national identity and civil society is built through shared values and stakeholder commitment to a common goal. The economic recession pervading the nation has inevitably led to an increase in the cost of secondary education with serious implications on students' enrolment in secondary school in South-West, Nigeria. As the economic situation of the country bites harder, it becomes very difficult for parents to cope with their responsibilities toward their children, especially in the area of their education. Solberg (2015) asserts that though education is a fundamental human right, fifty-nine million (59,000,000) children and sixty-five million (65,000,000) adolescents are out of school due to economic recession. Long (2013) submitted that in the US, there is evidence that the great recession decreases university enrolment. Unemployment is always high during recession, there cannot be economic growth where the unemployment rate is in the double digits, all of which point to a poor living standard which eventually has an impact on students' enrolment. No wonder, Paulsen (2013) argued that an increase in education will produce gains in employability.

The effect of the recession on the public service has been enormous, local employment workers are worst hit with non-payment of salary. According to Iwecha (2007) who posited that since the coming to power of the present Administration, salaries of civil servants in not less than twenty-seven out of the thirty-six states of the federation have not been regular and not up to the stipulated 30,000 minimum wage and the Federal Government are in arrears for several months owing their workers. No wonder, Buhari (2017) in News Agency of Nigeria lamented about non-payment of salary by some state governments, find it difficult to believe how workers still feed their households, pay rents as well as their children's school fees. He pointed out that the inconsistency in the salary payments had a negative impact on the populace. Poverty in Nigeria today can be traced to the effect of economic recession which caused the inability of parents to pay their children's school fees. ANON (2016) said that some parents do not have other means to provide for their family's needs. It could be seen clearly that poverty is causing a lot of havoc including the enrolment of science students into secondary schools in Southwest, Nigeria.

Enrolment into Science-oriented courses has been aloof for long based on the perception of some people that science is for males. Dianne, et al. (2013) noted that there was a powerful linkage between gender and enrolment. According to Janet, et al. (2016), Adeleye and Omotayo (2020) opined that major factors affecting low students' enrolment are; gender, interest and social economic status. Also, the researchers were of the opinion that awareness on girl child education and gender equality could have an influence on the enrolment of girls in science.

The rural environment as observed may not be favorable to children's education. Parents in rural areas at times believed that if they can survive and earn with little or no education, then their children

can as well survive. They have the notion that education is for the rich and people in the urban area. Zlang (2009) believed that urban students gain more from their home and school environment compared to rural pupils, hence, high students' enrolment in urban area.

### **Statement of the Problem**

Education provides people with cognitive, affective and psychomotor skills, all of which combine to drive local economy. Any country that wants to have strong economy, all children must have sound skills acquired from school. It was noticed that the level of corruption in the country brought above economic recession to the detriment of individual. Education is the only effective anti-corruption medicine that worked in the period before the 21<sup>st</sup> century in Nigeria. Education can deal decisively with the seed of corruption and it should be made to do so. Unfortunately, the hardship brought about by economic recession pose challenges to school administrator. Parents find it difficult to pay their children's school fee due to non-payment of salary, inability to remit the deduction/check-off dues which amounted to discounting worker's salary indirectly, the children that supposed to be in school are being engaged in street hawking, some are given to stranger as housemaid. It is very disgracing that parents have no choice than to compromise the future of their children due to hardship caused by economic recession. All these could be one of the factors responsible for low level of science students' enrolment in secondary schools in Southwest, Nigeria.

### **Purpose of Study**

The study looked at economic recession as determinant of science students' enrolment in secondary schools in South-West, Nigeria. Also, it investigated the difference in science student enrolment based on location and gender.

### **Research Question**

To guide the study, a research question was raised

1. What is the science students' enrolment in 2017-2019 session in secondary schools in Southwest, Nigeria?

### **Research Hypotheses**

These null hypotheses were developed:

HO<sub>1</sub>: There is no significant relationship between economic recession and science students' enrolment in secondary schools in South-West, Nigeria

HO<sub>2</sub>: There is no significant difference in science students' enrolment based on gender.

HO<sub>3</sub>: There is no significant difference in science students' enrolment in secondary schools and their location in Southwest, Nigeria.

## **METHODOLOGY**

The research was designed to investigate economic recession and science students' enrolment in South West, Nigeria. The descriptive research design of the survey type was used for the study. The population was made up of all the science students in all public secondary schools in Southwest, Nigeria. The sample consisted 720 students selected through multistage sampling procedure across the six States in South-West, Nigeria. The selection was in stages; in the first stage, three states were randomly selected from South-West, Nigeria, followed by the utilization of stratified sampling techniques to select three local government areas from each state. This followed the selection of four schools from each local government areas, to cater for location two schools was chosen from urban and rural areas respectively.

For data collection, a self-constructed questionnaire which was made up of two sections was used. Section A was to seek information as par the location and gender of the students. Also, inventory was collected from sampled schools to get information on the enrolment of the students. The questionnaire was given to expert in science education and subjected to screening. Their corrections for clarity of purpose were implemented to ensure the validity of the instrument. The instrument reliability was ascertained by utilizing test re-test method. The questionnaire was given twice to twenty students outside the sample at two weeks interval. Pearson Product Moment Correlation was used to correlate their scores and reliability coefficient 0.68 was obtained. The value was deemed high enough to adjudge the instrument's reliability.

## RESULT

**Research Question 1:** What is the level of science students' enrolment between 2015-2019

Table 1: Frequency count of science students' enrolment between 2015-2019

Year	Male	Female	Total
2015	2858	3214	6072
2016	2495	2694	5189
2017	2347	2911	5258
2018	2342	2813	5155
2019	2341	2693	5034
<b>Total</b>	<b>12, 383</b>	<b>14, 325</b>	<b>26, 708</b>

The result in table 1 shows science students' enrolment between year 2015-2019. The table revealed that there was decline in science students' enrolment especially among the male gender.

**Research Hypothesis 1:** There is no significant relationship between economic recession and science students' enrolment in secondary schools in Ekiti State.

Table 2: Relationship between Economic Recession and Students Enrolment

Variable	N	Mean	SD	Rcal	Sig
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Economic Recession	5	68.58	4.232	5.192	0.001
Science Students Enrolment	5	5341.6	416297		

$P < 0.05$  (significant Result)

The result in table 2 shows that  $t$ -cal 5.192 is significant at 0.05 level of significance. This implies that there was significant relationship between economic recession and science student enrolment in secondary schools in Southwest, Nigeria, thus, the hypothesis is rejected.

**Research Hypothesis 2:** There is no significant difference in science students' enrolment in secondary schools in Ekiti State based on gender.

Table 3: t-test showing the difference in science students enrolment based on gender

Gender	N	Mean	SD	Df	tcal	Sig.
Male	5	2476.60	223.106	8	2.801	0.023
Female	5	2865	215.317			

$P < 0.05$  (significant Result)

The result in table 3 shows that  $t$ -cal 2.801 is significant at 0.05 level of significance. This implies that there is significant difference in science student enrolment in secondary schools in Ekiti State based on gender, thus the hypothesis is rejected.

**Research Hypothesis 3:** There is no significant difference in science students' enrolment in secondary schools in Southwest, Nigeria based on location.

Table 4: t-test showing the difference in science students' enrolment based on location

Location	N	Mean	SD	df	tcal	Sig.
Urban	5	3612.20	339.015	8	10.822	0.000
Rural	5	1729.40	190.838			

$P < 0.05$  (significant Result)

The result in table 4 shows that  $t$ -cal 10.822 is significant at 0.05 level of significance. This implies that there is significant difference in science students' enrolment in secondary schools in Ekiti State based on location, thus, the hypothesis is rejected.

## DISCUSSION

Findings from the study revealed that the enrolment of science students declined and fluctuated on year basis. In year 2015 the total science students' enrolment was 6072, declined in year 2016 to 5189 and fluctuating in year 2017 by having total enrolment to be 5258. In year 2018 to 2019 showed reduction again by having 5155 in 2018 and decline to 5034 in year 2019. The result of this findings was supported by ascertain of Buhari (2017) in News Agency of Nigeria, who lamented about the non-payment of salary by some state Government, he finds it difficult to believe



how workers still feed their household, pay rents as well as their children school fees. Also, ANON (2016) ascertain that parents do not have other means to provide for the need of their household. It would be seen clearly that poverty due to economic recession is causing a lot of havoc involving the enrolment of science students into secondary schools in Southwest, Nigeria. In addition, Owens (2016) revealed that recession caused a steep decline in private school enrolment.

Furthermore, the findings revealed that there was significant difference in science students' enrolment based on gender in favour of female. Janet, et al. (2016) revealed that major factors affecting low students' enrolment were gender, interest and socio-economic status. The observation of the researcher on awareness of girl child education and gender equality could have been resulted in the findings of result in science students' enrolment which was in favour of female. Also, Dianne, et al. (2013) supported that there was powerful linkage between gender and enrolment. The study also, showed that, there was significant difference in science students' enrolment based on location in favour of urban area. The findings were supported by the finding of Zhang (2009) who believed that compared to rural students, their urban counterparts are more benefited in home and school environment. Hence high students' enrolment in urban area.

## CONCLUSION AND RECOMMENDATION

It was concluded from the result of the findings that economic recession has pose a lot of challenges to the society, most especially, in parents' inability to meet the needs of their children including their enrolment into secondary schools in South West, Nigeria. Therefore, it was suggested that government should try to make policies that will avert any problem that would result into economic recession. Also, government should try to make adequate infrastructures in rural areas to boost the morale of the students'.

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