STUDENT ENROLMENT PATTERN IN ANAMBRA STATE (2001 -2015)

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ABSTRACT: *Primary and secondary schools. It has occurred that for the past years, people in Anambra state has been battling with lack of knowledge on the rate or pattern in which students in primary and secondary school enroll. And the rate at which male and female enroll in these institutions. It becomes necessary to determine the trend at which students enroll into primary and secondary schools in Anambra state in each of the Local Government Area. The data used for this work is secondary in nature. They were obtained from Anambra State Statistical Year Book from 2001 to 2015. The statistical methods used in data analysis are Trend analysis and student t-test. The data were tested for normality using Shapiro-Wilk test and the result showed that the date is normally distributed. Homogeneity of variance was also tested using Bartlet test and Levene test, data was found to be homogenous. Test of Independence, showed that the data set are independent. Trend Analysis was carried out using Least Square Method. The results showed that significant difference exists between the enrollment of the male and the female students in the state. Finally, that as eight states has increment in 2020 while thirteen states will have a decrement in the student's enrollment in the year 2020. Special attention should be placed on this local government Area with decrement in their enrolment in 2020 to actually know why there the decrement exist.*

KEYWORDS: Enrolment, Dropout, Pattern, Trend, Education, Student, Nigeria

INTRODUCTION

Education is a process of teaching, training and learning especially in schools or colleges, to improve knowledge and develop skills. Education is also both an instrument of stability and of change: stability in the sense that good traditions are documented, taught, imbibed and practiced, change because it equips people to meet new challenges. In the same vein education is a tool for inculcating moral values in the citizen. The official age for entry into primary schools is six years old and the official age for entry into secondary school is 11 years old. Children are considered to be under-age for each class if they are one or more years younger than the official age. They are considered to be over-age if they are two or more years older than the appropriate age. The main reason for the primary-aged children having never attended school was the distance to school. Child labour needs at home and monetary costs were also important factors in children never attending or dropping out of school or starting school late. School costs was the most frequently reason for children starting school over-age

Parents are increasingly sending children to low-fee private schools because of proximity to their home and perceived better quality. Although there is very little actual evidence of the

quality of teaching/learning on offer in low-fee private schools (beyond the fact that teachers are more often in the classroom). Although seemingly decreasing, number of parents still consider government schools to be too westernized.

Despite an impressive drive to increase the number of primary schools and secondary school across the State in recent years, government welcomes the participation of private education for-profit where there are some secular subjects on the curriculum, provided that they meet government standards in order to make schools available for parent to enroll their children.

Direct costs such as Parent–Teacher Association (PTA) levies and the cost of uniforms, writing materials and textbooks constitute a major barrier to equitable access: inability to pay costs is a cause of non-enrolment, refused entry and/or corporal punishment and dropout among pupils, particularly among children from the poorest households.

Pupils also miss school to earn money for their own or for siblings' school fees/costs. Many working children earn money in order to pay for schooling.

In Anambra State, initiatives have been carried out, with some degree of success, to provide conditional cash transfers, free school uniforms, and free writing materials, textbooks, bags, sandals, bicycles and sanitary pads (for girls). These have often been achieved with PTA funds and are sometimes tied in to school development plans (SDPs); such schemes are also mainly aimed at girls.

Government of Anambra state are trying their best to make sure that male and female students has equal chance of enrollment into primary and secondary school in Anambra State. Special attention is given especially on getting girls enrolled in school. Barriers to girls' sustained and meaningful participation in formal education are multiple and interrelated, and are a combination of 'out-of-school' factors that pull girls out of school and 'in-school' factors that push girls out of school. They are also often connected to poverty, in the form of home chores and the need to earn money, especially through hawking. Other issues include: parental/community attitudes; sibling care; early marriage/pregnancy; hunger/ill health; distance to school and concerns about safety; corporal punishment; gender violence including bullying and 'teasing' in school; and a lack of water and clean sanitation that assures privacy. It should of course be noted that many of these issues affect boys too.

Various initiatives claim to have helped improve girls' participation (and often boys' too). They include: the abolition of school fees; material assistance; girls' clubs; improved infrastructure; micro-credit services targeting women and girls-only schools.

Issues affecting boys in particular include harsher and more frequent corporal punishment and more bullying/fighting. Boys are withdrawn or drop out to work in agriculture in rural areas or for trade/apprenticeships in urban areas; they generally have more employment opportunities as they get older

For many years now, we have been unable to know how people enroll into primary and secondary school particularly in Anambra state and Nigeria at large so as to acquire the above benefit mentioned above. Hence, this study considered the enrolment in each of the twenty-one Local Government Area in Anambra state.

LITERATURE REVIEW

Ashida (2015) study investigated factors that impede enrolment in Honduras. He used longitudinal data for 1971 children who entered primary schools from 1986 to 2000, and employed structural equation modeling to examine the factors themselves as well as the relationships between their components and educational attainment. He found out that reduced educational attainment is not necessarily the result of repetition or dropout but Low educational attainment occurs due to impediments in access to school, absenteeism, or overage, as this leads to a child suddenly leaving school.

Sekiya (2014) employs the True Cohort Method in his study to analyze data for 1377 children who entered in primary schools in the Republic of Honduras between 1986 and 1994. They found out that children's patterns of enrolment fall into two categories: graduation without repetition and dropout after a short period of attendance.

Emetarom (2000) observed that Educational Population inequality in school enrolment with girls and boys as the disadvantaged appears to be a well-known feature of Nigeria educational landscape. Emetaron further stressed that the expansion of the scope of basic education has led to the setting up of some of the mid-decade goals set by Nigeria to be achieved by 1995 including: Reduction of the Educational Population gap in primary education in 1990 by one-third (Boys 43%, Girls 33%). Educational Population gap = 10%. Reduction of adult female literacy rate by one-third of its 1990 level (i.e. 61% to 40.7%) by the year 1995.

Ashida and Takeshi (2017) examined changes in enrolment patterns by analyzing 1689 children's data using the true cohort method. They also analysed educational-development strategies/policies and project documentation. According to them, Grade-failure numbers did not improve over time because more children attended school, and no clear influence of strategies/policies and projects on educational quality was observed. Enrolment patterns were divided into graduation pattern with once-or-none repetition, and into dropout pattern after one-or-two years' attendance. They found out that the more recent the school entrance year, the more often students continued attendance until graduation.

Babour and Reeves (2009) utilize state data of nearly 1.7 million students in Ohio to study a specific sector of online education: K–12 schools that deliver most, if not all, education online, lack a brick-and-mortar presence, and enroll students full-time. They investigated e-school enrollment patterns and how these patterns vary by student subgroups and geography. They also evaluate the impact of e-schools on students' learning, comparing student outcomes in e-schools to outcomes in two other schooling types, traditional charter schools and traditional public schools. They found out that students and families appear to self-segregate in stark ways where low-income, lower achieving White students are more likely to choose e-schools while low-income, lower achieving minority students are more likely to opt into the traditional charter school sector. They also discovered that students in e-schools are performing worse on standardized assessments than their peers in traditional charter and traditional public schools. Similarly,

Cullen et al (2006) found that when students in low-performing schools were provided the opportunity to transfer to a new and better performing school, White and higher achieving students and students from more affluent families were more likely to utilize the open enrollment policy than their non-White, poorer, and lower achieving peers. According to them

If information is costly to acquire (e.g., financially, intellectually, linguistically), low-income families often base decisions on easy to access information

Hastings and Weinstein (2008) found out that students from at-risk backgrounds placed considerably less weight on academic indicators when making a decision.

Welsh et al (2016) find out that conditional on leaving the same school, low performing students were considerably more likely to attend a school with low average achievement than their higher achieving peers. Given the dynamics around school choice, an important and open issue pertaining to e-schools is to understand how students and families choose which school to attend.

Ayodele (2017) investigated the internal efficiency of private and public secondary schools in Ekiti State from 2005/2006 to 2007/2008 academic session. The objective of his study was to identify the relationship between internal efficiency of Junior Secondary Schools in Ekiti State and variables like class size, school size, teachers' qualification and student-teacher ratio (STR). He used ex-post factor research design for the study. The sample size consisted of 30 publics and 20 private schools in the state selected through purposive and proportional stratified random sampling techniques. The research instrument he used to collect data was a validated inventory titled "Data on School Records and Students". He used True cohort method to determine the wastage ratio and consequently the coefficient of efficiency of 30 publics and 20 private secondary schools in Ekiti State. T-test and Multiple Regression Statistic were used to test the hypotheses at 0.05 level of significance. He discovered that private junior secondary schools have higher wastage rates than public secondary schools in Ekiti State. Specifically, the findings showed a higher percentage of dropouts in private junior secondary schools during the period of study. The coefficient of efficiency for public schools was therefore 90% while it was 73% in the private secondary schools in Ekiti State. With this he found out that both public and private secondary schools in Ekiti State were fairly internally efficient. However, public schools were more internally efficient than private schools

Nwaka (2010) studied secondary school administration in Anambra state. She used a descriptive survey research design to identify the challenges that impede secondary school administration today in Anambra State. The population of the study was all the 259 public secondary school principals in the state. Her study was guided by two research questions and two null hypotheses. She used A 20-item questionnaire for data collection. Analysis was done using mean scores and t-test. On her study she found out that principals are challenged by poor knowledge of public accountability and poor knowledge of Information Communication Technology (ICT among others. And she suggested that government should increase the principals' responsibility for educational accountability to enable them administer their schools efficiently and effectively and achieve the predetermined goals.

Amuda et al (2016) studied determined gender difference in enrolment in SSCE Economics among senior secondary school students from 2006 to 2010 academic sessions in Maiduguri Metropolis, Borno State, Nigeria. They raised two objectives, one research question was answered and one hypothesis was tested in the study. Ex-post factor research design was used. The population of the study consisted of all senior secondary school students in Maiduguri Metropolis. A purposive sampling technique was used to select sample from twenty-eight co-educational secondary schools in the Metropolis. The total number of students stood at 50715 which consisted of 35395 males and 15320 females. Students' SSCE results for 2016/2017 to

2009/2010 were collected and analysed using percentages for the research question and t-test of independent samples for hypothesis. With the results of their study they found out that there were more males enrolled than females in Economics.

Cox (2013) study investigated the predictors of student enrollment pattern in high school carrier academics. His purpose was to describe participation patterns at the district level of students enrolled in career academies and determine whether participation in career academies is a function of demographic and/or prior learning experience and prior performance variables. Ex-post facto data was used to determine six-year enrollment trends. In addition, He employed both binary logistic regression and multinomial logistic regression methods to determine the extent demographic along with prior learning experience and prior performance variables could be used to predict participation within career academies. Trend data results indicated slight increases in the proportions of students of color (including African American, Hispanic, and Multi-Racial) enrolling in career academies. However, Caucasian students continued to be overrepresented in career academies. He discovered that female students, as well as students from economically advantaged families, enrolled to higher degrees in career academies. Moreover, students who enrolled in career academies were found to have taken more CTE coursework while enrolled in middle school and they demonstrated higher mean scores on the reading and mathematics portions of the state assessment during the school year prior to entering high school. Other authors reviewed are Okaale (2016), Pittin (2007), Tuwo and Sossou (2008), Sekiya and Asha (2016), Shabaya and Kwaduwo (2004) Lewin (2009), Ampiah and Adu- yeboah (2009). Manisha et al (2014), Ankalibazuk (2017).

In summary, some of these authors reviewed that male enrollment are higher than that of female whereas some contradict it. Some also emphasized that both has the equal access to education while some discovered that parents and ethnicity are the reasons for female decrease in enrolment.

MATERIAL AND METHOD

Data

The data used for this work is secondary in nature. They were obtained from Anambra State Statistical Year Book from 2001 to 2015.

Table 1: Primary and Secondary School Enrollment by Sex From 2001-2015

Year	Female	Male	Year	Female	Male
2001	1015152	175362	2008	757736	703698
2002	345031	485704	2009	149049	907526
2003	383605	632242	2010	335493	780308
2004	148483	994201	2011	259740	598595
2005	215891	705928	2012	661222	515438
2006	254843	845420	2013	432212	412361
2007	546804	894265	2014	360118	662644
			2015	378860	318065

LOCAL GOVT	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Aguata	72031	51345	62107	61894	47655	63229	87604	55786	86984	87463	22057	86984	27983	48685	61682
Anambra East	49887	38236	51038	47342	34636	53431	55226	56705	42464	46907	29474	57108	41217	28094	48539
Anambra West	37163	31492	38375	42464	32412	41918	46925	52968	29474	37206	57093	45257	35740	25521	33470
Anaocha	78413	42133	55846	60914	47992	61514	76016	67932	34292	54405	34075	62576	50713	31292	29008
Awka North	41231	25919	29474	37528	30034	41865	45780	53133	34636	38924	34291	36802	1066	22579	28880
Awka South	90166	48308	71731	76151	60173	64791	88773	88448	29474	53897	31492	58342	41299	38206	29012
Ayamelum	25542	20067	22598	34292	28785	24023	35110	49649	30034	28788	60914	38682	29538	22563	27833
Dunukofia	43452	24970	29538	40529	35396	30862	39010	50493	42464	29276	50713	28996	23514	17803	22057
kwusigo	42876	28538	34291	45657	33803	45473	51364	60918	43452	38362	47342	37054	25427	21863	24904
Idemili North	86231	74563	78881	79593	57693	94025	122317	110236	47745	97389	22057	95794	73334	42367	35741
Idemili South	43119	27530	30153	42342	33305	41879	49073	62209	62814	36964	20067	37422	30273	19444	26303
Ihiala	74326	62814	70926	75526	60224	65393	93766	86039	37422	67304	42085	66327	56622	413222	39979
Njikaoka	58744	34075	40984	51991	42085	42543	63228	66095	47911	41609	43119	42727	32406	25072	28339
Nnewi North	79902	39504	47745	56206	49086	46988	72411	76664	86231	50149	59925	50054	37311	32704	27855
Nnewi South	44864	36642	47911	54558	43069	51253	56609	60738	56206	49121	44864	49365	39036	31031	36909
Ogbaru	50467	41274	51724	58342	46758	58056	75778	79001	86437	58770	49086	44554	35851	31984	31935

Onithsha North	86437	55870	70577	72116	74561	85826	145418	131253	63228	81089	41322	112292	81712	47230	35840
Onitsha South	69596	59925	67104	73130	59663	68559	95358	88420	31031	77118	42342	78159	48149	38584	36909
Orumba North	42494	31878	42721	45979	35791	44896	55694	58310	42727	56165	41322	53545	42562	28147	33035
Orumba South	35417	25952	36943	44117	35432	35124	38847	53674	46988	41391	32704	47045	41578	27703	27189
Oyi	38156	29700	35180	42013	33266	38615	46762	52763	74561	43504	51991	47575	19242	28668	31506
TOTAL	**1190514**	**830735**	**1015847**	**1142684**	**921819**	**1100263**	**1441069**	**1461434**	**1056575**	**1115801**	**858335**	**1176660**	**844573**	**1022762**	**696925**

The statistical method to be used in data analysis are Trend analysis and student t-test. The data was tested for normality using Shapiro-Wilk test and the result showed that the date is normally distributed. Homogeneity of variance was also tested using Bartlet test and Levene test, data was found to be homogenous. Test of Independence, showed that the data set are independent. Trend Analysis was carried out using Least Square Method. The results are presented in Table 4.

RESULTS

The results for the independent t-test is presented in Table 3.

Table 3: Result of Students t-Test for Male and Female Enrolment in Anambra State

Factors	N	Mean	Std. Deviation	T-test	p-value
Females	15	416282.60	239583.256	-2.630	0.014
Males	15	642117.13	230660.542		

The result from Table 3 showed that the mean enrolment of Female students is less than that of the Male students, and the p-value is less than the significant values we therefore conclude that there is a significant difference between the male and female students' enrolment.

Time series (trend) analysis was performed on the twenty-one (21) Local Government Areas as well as the overall Total by years. Forecast was done using the de-trended series

Table 4: Time Series Analysis was used to Check the Trend in Order to Forecast

SN	LGA	Trends of $(X_t - T_t)$	Forecast by 2020
1	TOTAL LGA	$Y_t=15010600-0.046429* t$	$Y_t=15010506.21$
2	AGUATA	$Y_t=1340064-0.000143*t$	$Y_t=1340063.7$
3	ANAMBRA EAST	$Y_t=868750-0.000000*t$	$Y_t=868750$
4	ANAMBRA WEST	$Y_t=117943-0.00029*t$	$Y_t=117942.41$
5	ANAOCHA	$Y_t=3768500-0.003571*t$	$Y_t=3768492.8$
6	AWKA NORTH	$Y_t=754972+0.000286*t$	$Y_t=754972.58$
7	AWKA SOUTH	$Y_t=6280120+0.000286*t$	$Y_t=6280120.6$
8	AYAMELUM	$Y_t=-316000-0.450000*t$	$Y_t=-1316909$
9	DUNUKOFIA	$Y_t=1591328-0.000286*t$	$Y_t=1591327.4$
10	EKWUSIGO	$Y_t=1615022+0.000286*t$	$Y_t=1615022.6$
11	IDEMILI NORTH	$Y_t=4870682+393*t$	$Y_t=5664542$
12	IDEMILI SOUTH	$Y_t=1579364-0.000143*t$	$Y_t=1579363.7$
13	IHIALA	$Y_t=-11762000+0.300*t$	$Y_t=-11761394$
14	NJIKAOKA	$Y_t=2277720-0.004286*t$	$Y_t=2277711.3$
15	NNEWI NORTH	$Y_t=3106060+20.0*t$	$Y_t=3146460$
16	NNEWI SOUTH	$Y_t=-7554000-0.032143*t$	$Y_t=-7554065$
17	OGBARU	$Y_t=2149280-0.038571*t$	$Y_t=2149202.1$
18	ONITHSHA NORTH	$Y_t=2706053-976.339*t$	$Y_t=733848.22$
19	ONITSHA SOUTH	$Y_t=3790620+0.00286*t$	$Y_t=3790625.8$
20	ORUMBA NORTH	$Y_t=2721580+0.000714*t$	$Y_t=2721581.4$
21	ORUMBA SOUTH	$Y_t=-2060 -0.001429*t$	$Y_t=-2062.887$
22	OYI	$Y_t =117371-0.000014*t$	$t =117370.97$

CONCLUSION

Conclusively, from the results /findings of this research work the researcher discovered that significant difference exists between the enrollment of the male students and that of the female students in the state. Finally, that as eight states has increment in 2020 while thirteen states will have a decrement in the student's enrollment in the year 2020.

Having successfully completed this research work, we wish to make the following recommendations: More researches on why male students enroll more than female student should be carried out in other states. Special attention should be placed on this local government Area with decrement in their enrolment in 2020 to actually know why there the decrement exist.

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