

## **The Effective Distribution of Teachers into Secondary Schools in Ekiti State, Nigeria: A Critical Analysis**

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### **Abstract**

This paper investigated the distribution of teachers to secondary schools in Ekiti State, Nigeria. As an ex-post facto and descriptive survey, the study population embraced all the 141 secondary schools in Ekiti State, Nigeria. The sample was identified with the population as all the schools were involved in the study. The method of selection was by multi-stage and stratified random sampling technique. The instrument used to collect data for the study was an inventory while the data collected were analyzed using percentages. The findings showed that the enrolment growth rate was found to be 5.6% while the teacher-student ratio was 1:30. The supply of qualified teachers did not match the demand for them in secondary schools in the State. It was projected that the State government would require additional 3,585 teachers by the year 2016. Based on the findings, it was recommended that the conditions of service of teachers should be reviewed and made more attractive and lucrative. Government should recruit more qualified teachers into the schools to meet up with the demand for them. This recruitment should however be along subject lines.

Keywords teachers supply, teachers demand, secondary schools enrolment growth rate,

### **Introduction**

The pattern of distribution of teachers into secondary schools in Ekiti State, Nigeria has generated mixed feelings among many educationists (Ige, 2001; Alonge, 2003). Since rural schools form 57% of all secondary schools in the State while urban schools account for the remaining 43% (Ekiti State Ministry of Education, 1996), it seems that the distribution of teachers to the schools has not been done satisfactorily. Common observation in the school system in the State shows that teachers usually prefer to work in urban areas rather than in rural areas. This is perhaps due to the presence of many social amenities and infrastructural facilities in the urban areas. Thus, it seems that the distribution of qualified teachers to secondary schools in the State appears to have brought about some controversy in many quarters. This controversy has been centred on whether or not there are more qualified teachers in urban schools than in rural schools.

The social demand for education has brought about the increase in the enrolment of students in schools (Okunola, 1983, Nwadiani, 1995). This fact was confirmed by

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researchers (Nwankwo, 1981; Mussazi, 1982; Aghenta 2001) who pointed out that that the social demand approach considers education as a service that is demanded by the people just like any other goods or services. Thus, the free education at the primary and secondary school levels was a response to the social demand by the people. The free education has perhaps led to a considerable expansion in students' enrolment in the schools and has created demand for more equitable distribution of teachers to schools (Aghenta, 1980). For instance, the enrolment of students increased from 80, 272 in 1996 to 142,560 in 2006, an increase of 78% while the number of teachers in the schools rose from 3,264 in 1996 to 5415 during the same period giving an increase of 66% (Ekiti State Ministry of Education, 2006).

The curriculum in secondary schools in the State consists of both science and non-science subjects. Although teachers are available in both fields of study in all the schools in varying proportions, it seems that the state government has not really complied with the National Policy on Education provisions of 40: 60 science and non-science teacher ratio (Federal Republic of Nigeria 2004) in the distribution of qualified teachers into secondary schools in the State. This is perhaps why there are still many unqualified teachers in secondary schools in the state (Olugbile, 2007) As such, the demand for qualified teachers seems to be higher in science subjects than in non-science subjects. Thus, considering the fact that education consumes a disproportionate share of the State's revenue (Ekiti State Budget, 1997), it might be necessary to examine how teachers were distributed to secondary schools in the State along subject lines.

## **Literature Review**

Many researchers have had different views on the distribution of teachers into schools. Adesina (1977) examined teachers' position in Nigerian schools between 1965 and 1972 and found that there were there were 10,855 teachers in secondary schools in the country in 1965. Out of this number, only 21 per cent were graduates with teaching qualifications; 25 per cent were graduates without teaching qualifications, 6 per cent were holders of the Nigerian Certificate of Education (NCE) and the remaining 48 per cent were neither graduates nor holders of the NCE, but possessed qualifications similar to those required for primary schools. In 1972, he found that 45 per cent of the 16,722 teachers in Nigerian secondary schools were unqualified teachers. On State basis, Aghenta (1980) found that over 3,000 qualified teachers were in short supply in secondary schools in the former Bendel State while in Ogun State, 2,953 qualified teachers were in short supply during the period the period (Ogun State Government 1981). In the Ondo State, Adeyemi (1985) reported that 6,836 qualified teachers were in short supply to secondary schools. This implies that shortages of qualified teachers had been recurring problem in Nigerian schools.

The findings of Adesina (1977) were, however, supported by Nwadiani, (1996; Fideler, & Haselkorn, 1999).who reported that the standards in schools have become difficult to maintain because of the problem of inadequacy of qualified teachers. This argument was supported by the findings of other researchers (Adeyemi 1998; Fabunmi, 2002). Nwagwu (1978) defended the idea of recruiting unqualified teachers to schools and reported that during the time of acute shortage of qualified teachers, the authorities were tempted to overlook quality and were inclined to employ anyone with minimal educational

qualifications. Bennett (1972) seemed to agree with Nwagwu (1978) on the presence of unqualified teachers in schools, but he recommended that unqualified teachers should normally not be more than half of the total teaching force in schools. Bennett's (1972) views were countered by the findings of other researchers (Nwadiani, 1996; Akhaine, 2001) who reported that with the increase in the supply of qualified teachers from the various higher institutions in the country, more qualified teachers should be employed into the schools' system.. However, research findings have shown teachers' turnover is always high because many teachers tend to leave the teaching profession if and when more attractive jobs become available in government, politics or private enterprise (Harbison, 1971; Dennison, 1984). Thus teacher turnover is capable of leading to serious teacher shortages in the schools.

In this regard, Dennison (1984) reported a chronic shortage of teachers in Mathematics and Physical Sciences in the UK. He argued that a situation whereby a school is unable to fill a Physics vacancy constitutes a critical level in balancing staffing and curriculum. Supporting the findings, Smithers (1994) argued that the problem of getting teachers for Physics, Chemistry and Mathematics in British schools is in an increasing difficulty. Commenting on the problem, McNamara (1995) argued that until recently, graduates in the UK could enter the teaching profession without any formal training. He reported that it was "only since 1970 (for primary) and 1974 (for secondary) that there has been a compulsory requirement that graduates must be trained before being able to teach in maintained schools. Thus, teachers as key input of a highly-skilled labour resource (Hansen, 1966) and as the hub of the educational system (Ukeje, 1979) are a force to reckon with in the school system.. Notwithstanding the importance attached to teachers, it seems that teachers' shortages have been a common feature in schools in many countries (Leibenstein, 1971; Straker 1988; Lowe, 1991). .

Since the number of students to a teacher determines the number of teachers needed in a school, the teacher student ratio is another good determinant in the distribution of teachers to schools. Research findings have shown that a lower teacher-student ratio is ideal for secondary schools in order to maintain standards and improve the quality of education (Oladejo, 1991; Hoover-Dempsey & Sandler, 1997). Towards this end, Adesina (1977) recommended a teacher –students ratio of 1:30 for Nigerian schools. Fagbamiye (1981) and Imoge (1982) suggested a teacher-student ratio of 1:37. In the same vein, the numbers of subjects taught in schools are other determinants of teacher demand in schools (Akangbou, 1987; Darling-Hammond, & Dilworth, 1997). The number of subjects taught could perhaps influence the distribution of teachers along subject lines (Fideler, & Haselkorn, 1999; Aghenta, 2003; Adeyemi, 2004). Thus, considering these shortages of teachers especially in the core subjects of the schools' curriculum, this study intended to examine the distribution of qualified teachers to secondary schools in Ekiti State, Nigeria in order to correct erroneous impressions.

### **Statement of the Problem**

The decay in the school system in Ekiti State, Nigeria perhaps as a result of the free education policy of the State government and the subsequent rapid increase in the enrolment of students seem to have brought about the demand for more qualified teachers in many schools. Although the State government has taken various measures to recruit

more teachers on subject basis into schools, it seems that there has not been an equitable distribution of available teachers along subject lines. A close look at the demand and supply situations of qualified teachers to secondary schools in the State seems to show a disparity.

The addition of new subjects into the curricula of many schools and the introduction of the continuous assessment as a means of evaluating students' performance has led to the demand for more qualified teachers. Although qualified teachers were needed in the science and non-sciences subjects, the demand for qualified teachers appears to be more pronounced in science subjects than in non-sciences subjects. Considering the rapid expansion in student's enrolment in secondary schools in the, the lopsidedness in the distribution of qualified teachers into secondary schools in Ekiti State, Nigeria constituted the problem which this study intended to examine.

### **Research Questions**

In addressing the problem, the following research questions were raised:

1. What is the staff strength of teaching personnel in secondary schools in Ekiti State, Nigeria?
2. What is the enrolment growth rate in secondary schools in the State?
3. What is the average class-size and teacher -student ratio in the schools?
4. What is the pattern of distribution of qualified teachers to urban and rural secondary schools in the State?
5. What is the pattern of distribution of qualified teachers on subject basis to secondary schools in the State?
6. How does the distribution of qualified science teachers compare with the distribution of qualified non- science teachers in secondary schools in Ekiti State?

### **Method**

#### *Research Design*

The descriptive research design of the survey type and the ex-post facto design were adopted in this study. . A descriptive survey is a form of planned collection of data from a large population for the purpose of analyzing the relationships between variables (Oppenheim, 1992). It is also a study that examines a situation as it is without any attempt to manipulate dependent variables (Cressey, 1982). An ex-post facto research, on the other hand, is an after fact or after event research (Gay, 1996). The data needed for the study are already in place in the schools and they do not involve any manipulation of variables.

#### *Population and Sample*

The study population comprised all the 170 secondary schools in Ekiti State, Nigeria. This population was made up of 57% rural and 43% urban schools. The sample was identical with the population (Moore, 1994) as all the schools were involved in the study. The principals of the secondary schools were the respondents in the study.

*Research instrument*

The instrument used to collect data for the study was an inventory titled ‘secondary schools principals’ inventory’. The inventory consisted of two sections, A and B. Section A was demographic. It sought information about the name of the schools, year of establishment and the location of the school. Section B sought information on students’ enrolment in the schools, number of classes, staffing situation as well as the pattern of distribution of teachers to schools. The content validity of the instrument was determined by experts in educational management who examined each item of the inventory in order to ascertain whether they adequately measured what they were supposed to measure. Their remarks were used as a guide in reviewing the instruments before administering them to the respondents. The completed copies of the instrument were retrieved from the respondents after a period of two weeks. The data collected were analyzed with the use of percentages.

**Data Analysis**

*Question 1* What is the staff strength of teaching personnel in secondary schools in Ekiti State, Nigeria?

In answering this question, data on the numbers of teachers by qualification and sex were collected from the respondents in the study using the inventory. The data collected were analyzed through the use of percentages. The findings are presented in Table 1.

**Table 1** Number of Teachers by Qualification and Sex in Secondary Schools in Ekiti State, Nigeria (1996 to 2006)

Years	Degree Teaching Qualification			Degree without Teaching Qualification			Nigeria Certificate of Education (NCE)			Others			Total		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	Total
1996	681	451	1132	624	356	980	674	346	1020	112	20	132	2091	1173	3,264
1997	1121	518	1639	390	160	550	520	590	1110	130	21	151	2161	1289	3450
1998	1092	622	1714	325	137	462	546	600	1146	154	42	196	2117	1401	3518
1999	1269	598	1867	528	152	680	521	672	1193	80	21	101	2398	1443	3841
2000	1294	628	1922	561	160	721	594	726	1320	105	14	119	2554	1528	4082
2001	1349	709	2058	488	121	609	627	763	1390	132	32	164	2596	1625	4221
2002	1358	757	2115	464	170	634	746	912	1658	125	44	169	2693	1883	4576
2003	1190	1002	2192	412	228	640	728	954	1682	150	46	196	2480	2230	4710
2004	1136	1078	2214	675	146	821	733	1012	1745	130	53	183	2674	2289	4963
2005	1325	1132	2457	321	225	546	930	1168	2098	140	43	183	2716	2568	5284
2006	1336	1245	2581	264	257	521	965	1176	2141	88	84	172	2653	2762	5415

As shown in Table 1, unqualified teachers that is, teachers without teaching qualification, are in larger numbers in all the years. This is an indication that qualified teachers are in

still much needed in the schools. Further analysis shows the percentage of each category of teachers in the schools. The findings are presented in Table 2.

**Table 2 Percentage of Qualified and Unqualified Teachers in Secondary Schools in Ekiti State, Nigeria (1996 to 2006)**

Years	Qualified		Unqualified		Qualified		Unqualified		Total
	Degree Teaching Qualification	%	Degree without Teaching Qualification	%	Nigeria Certificate of Education (NCE)	%	Others	%	
1996	1132	34.7	980	30.0	1020	31.3	132	4.0	3,264
1997	1639	47.5	550	15.9	1110	32.2	151	4.4	3450
1998	1714	48.7	462	13.1	1146	32.6	196	5.6	3518
1999	1867	48.6	680	17.7	1193	31.1	101	2.6	3841
2000	1922	47.1	721	17.7	1320	32.3	119	2.9	4082
2001	2058	48.8	609	14.4	1390	32.9	164	3.9	4221
2002	2115	46.2	634	13.9	1658	36.2	169	3.7	4576
2003	2192	46.5	640	13.6	1682	35.7	196	4.2	4710
2004	2214	44.6	821	16.5	1745	35.2	183	3.7	4963
2005	2457	46.5	546	10.3	2098	39.7	183	3.5	5284
2006	2581	47.7	521	9.6	2141	39.5	172	3.2	5415

Table 2 shows that an even trend in the number of qualified teachers to all the schools. Although unqualified teachers were in various proportions in all the years, the percentage of unqualified graduate teachers without teaching qualification decreased from 30% in 1996 to 9.6% in year 2006. Teachers holding the Nigeria Certificate of Education (NCE) qualification had an increasing proportion from 1996 when they accounted for 28.4% of the total number of teachers in the schools to 2006 when they accounted for 51.8%. This suggests that NCE teachers were in great numbers in the schools.

*Question 2 What is the enrolment growth rate in secondary schools in the State?*

In investigating the enrolment growth rate in secondary schools in the State, data on number of classes in the schools as well as the enrolment figures of students between 1996 and 2007 were collected from the respondents collected using the inventory. In computing the enrolment growth rate, the calculations were based on the increase in schools' enrolment for one year over the previous year's enrolment using the following formula:

$$E_n = \frac{E_t - E_{t-1} \times 100}{E_{t-1}}$$

Where  $E_n$  = The Enrolment growth,  
 $E_t$  = The Enrolment in year t (present year);,  
 $E_{t-1}$  = The Enrolment in year t – 1 (previous year).

Table 3 shows the findings. In Table 3, students' enrolment was 91,450 in 1996 when the State was created. The enrolment rose to 156,537 by year 2006 (an increase of 71.1%). The enrolment growth was 16.9% in 1997. It declined to 5.3% in 1998 and 2.1% in 1999. Although there was a rise in the enrolment growth rate in 2001, the growth rate further declined considerably to 3.7% in 2005 and 2.4% in 2006. On the average, the annual enrolment growth rate in the schools was 5.6%.

**Table 3 Enrolment Growth Rate in Secondary Schools in Ekiti State, Nigeria**

Year	Students' Enrolment	Growth Rate in %
1996	91,450	-
1997	106,950	16.9
1998	112,565	5.3
1999	114,894	2.1
2000	120,046	4.5
2001	128,978	7.4
2002	131,983	2.3
2003	139,759	5.9
2004	147,542	5.6
2005	152,931	3.7
2006	156,537	2.4
Average Growth Rate	=	5.6%

*Question 3 What is the average class-size and teacher–student ratio in secondary schools in the State?*

In determining the average class-size in secondary schools in the State, data on students' enrolment in the schools were collected from the respondents using the inventory. Data on the number of classes in the schools were also collected. Average class-size was computed by dividing the total number of students in a school by the number of classes in that school. This was done using the following formula:

$$Cs = \frac{Ns}{NC}$$

Where Cs = Average class size,  
 Ns = Total Number of Students;  
 NC = Total number of classes.

The findings are presented in Table 4. In Table 4, the number of classes in the schools varied from one year to another. The class-size ranged between 29 and 32 while the average class-size for all the years was 30.

**Table 4 Average Class-size in Secondary Schools in Ekiti State, Nigeria**

Years	Actual Number of Classes	Students Enrolled	Class-Size
1996	3152	91,412	29
1997	3450	106,950	31
1998	3517	112,565	32
1999	3706	114,894	31
2000	4139	120,046	29
2001	4298	128,978	30
2002	4257	131,983	31
2003	4658	139,759	30
2004	5087	147,542	29
2005	5098	152,931	30
2006	5120	156,537	31
Average	Class-size	=	30

In determining the teacher-ratio in the schools, data on the total number of students in the schools in all the years were collected from the principals through the inventory. Data on the number of teachers were also collected. The teacher-student ratio was computed by dividing the total number of students in the schools by the number of teachers using the following formula:

$$Ts = \frac{Ns}{Nt}$$

Where Ts = Teacher-student Ratio; Ns = Total number of students; and  
 Nt= Total number of teachers.

On the basis of this formula, the teacher-student ratio in the secondary schools in the State in all the years are indicated in Table 5. As indicated in the table, the teacher-pupil ratio varied from year to year in secondary schools in the State. The average teacher-pupil ratio secondary schools was 1:30.

**Table 5 Teacher –Student Ratio in the Secondary Schools in Ekiti State, Nigeria**

Years	Total number of students	Number of teachers in post	Teacher-student Ratio
1996	91,412	3,264	28
1997	106,950	3450	31
1998	112,565	3518	32
1999	114,894	3841	30
2000	120,046	4082	29
2001	128,978	4221	31
2002	131,983	4576	29
2003	139,759	4710	30
2004	147,542	4963	30
2005	152,931	5284	29
2006	156,537	5415	29
Average Teacher-student Ratio = 1:30			

*Question 4 What is the pattern of distribution of qualified teachers into urban and rural secondary schools in the State?*

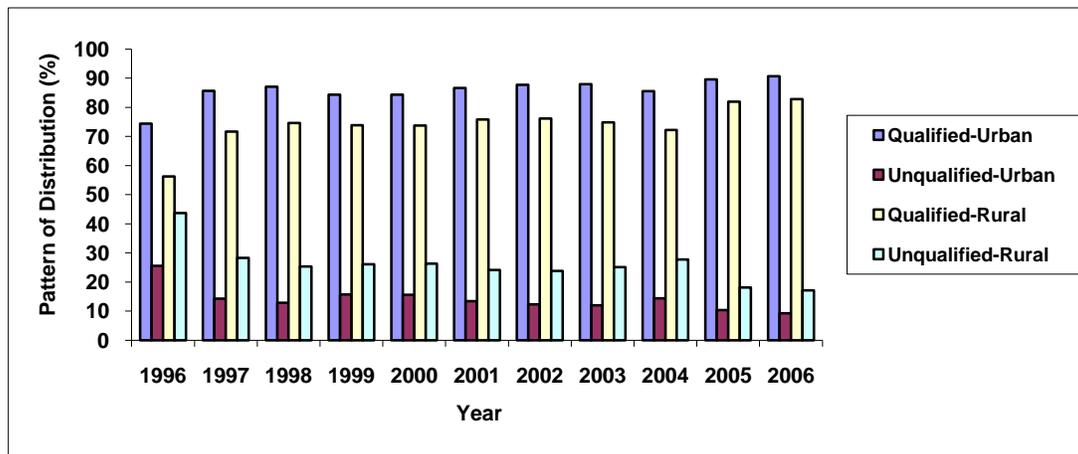
In answering the problem data on the distribution of teachers to urban and rural secondary schools in the State was collected using the inventory. Data on the number of qualified and unqualified teachers were also collected. The proportion of the number of teachers in urban and rural schools was determined using percentages. The findings are presented in Table 6.

As indicated in Table 6, the number of teachers in urban schools was greater than the number in rural schools in each of the years of study. In 1996, for example, out of the 3264 teachers in all the schools, 1736 teachers were in urban schools while 1528 teachers were in rural schools. In year 2006, out of the 5415 teachers in all the schools, 3017 teachers were in urban schools while 2398 teachers were in rural schools. It was also found that there were greater number of qualified teachers in urban schools than in rural schools. In 1996, for instance, out of the 1736 teachers in urban schools, 1291 teachers (74.4%) were qualified teachers while 445 teachers (25.6%) were unqualified. In like manner, out of the 1526 teachers in rural schools, 861 teachers (56.3%) were qualified teachers while 667 teachers (43.7%) were unqualified teachers.

**Table 6 Pattern of Distribution of Qualified Teachers into Urban and Rural Secondary Schools in Ekiti State, Nigeria**

Years	Overall Number of teachers in post	Urban Schools					Rural Schools				
		No of teachers in post in urban schools	No of qualified teachers in post	%	No of unqualified teachers in post	%	No of teachers in post in rural schools	No of qualified teachers in post	%	No of unqualified teachers in post	%
1996	3,264	1736	1291	74.4	445	25.6	1528	861	56.3	667	43.7
1997	3450	1962	1682	85.7	280	14.3	1488	1067	71.7	421	28.3
1998	3518	1886	1642	87.1	244	12.9	1632	1218	74.6	414	25.4
1999	3841	2136	1800	84.3	336	15.7	1705	1260	73.9	445	26.1
2000	4082	2193	1850	84.4	343	15.6	1889	1392	73.7	497	26.3
2001	4221	2303	1994	86.6	309	13.4	1918	1454	75.8	464	24.2
2002	4576	2487	2181	87.7	306	12.3	2089	1592	76.2	497	23.8
2003	4710	2650	2332	88.0	318	12.0	2060	1542	74.9	518	25.1
2004	4963	2798	2396	85.6	402	14.4	2165	1563	72.2	602	27.8
2005	5284	2940	2635	89.6	305	10.4	2344	1920	81.9	424	18.1
2006	5415	3017	2736	90.7	281	9.3	2398	1986	82.8	412	17.2

In year 2006, out of the 3017 teachers in all the schools, 2736 teachers (90.7%) were qualified teachers while 281 teachers (9.3%) were unqualified. In the same vein, out of the 2398 teachers in rural schools, 1986 teachers (82.8%) were qualified teachers while 412 teachers (17.2%) were unqualified. The graph depicting the trend in the pattern of distribution of the teachers is shown in Figure 1.



**Figure 1** Graph showing the Trend in the distribution of Teachers into urban and rural secondary schools in Ekiti State, Nigeria

As indicated in Figure 1, the graph showed a lopsided trend in the distribution of teachers therefore depicting an imbalance in the pattern of distribution between urban schools and rural schools. The imbalance in the distribution of teachers was very glaring in each of the years. In a situation whereby all the teachers in urban and rural schools should be qualified teachers, the presence of unqualified teachers in high proportions shows that there was a disparity in the distribution of qualified teachers to the schools. This suggests that not much effort has been made in the distribution of qualified teachers into secondary schools in the State.

*Question 5* What is the pattern of distribution of qualified teachers on subject basis to secondary schools in the State?

In determining the pattern of distribution of qualified teachers on subject basis to secondary schools in the State, data on the number of schools having specified number of teachers per subject were collected through the inventory for the year 2006. The findings are presented in Table 7. In Table 7, a large proportion of the schools had two or less than two teachers in subjects like English Language, Mathematics, Physics, Chemistry, History and Accounts. A large number of the schools had 3 to 4 teachers in virtually all the subjects.

**Table 7 Distribution of Teachers to Secondary Schools in Ekiti State, Nigeria by School and by Subject**

Number of Schools with teachers having subject specialization										
Number of teachers in post	English	Math.	Physics	Chem.	Biology	Agric Sc	Economics	Geography	History	Accounts
≤ 2	124	110	112	121	80	84	-	-	106	112
3 - 4	31	41	38	34	42	43	51	82	54	43
5 - 6	10	12	16	10	40	32	62	43	10	15
7 - 8	5	7	4	5	5	11	45	36	-	-
> 8	-	-	-	-	3	-	12	9	-	-
Total	170	170	170	170	170	170	170	170	170	170

For example, 31 schools had 3 to 4 teachers in English Language, 41 schools in Mathematics, 38 schools in Physics, 34 schools in Chemistry, 42 schools in Biology, 43 schools in Agric Science, 51 schools in Economics, 82 schools in Geography, 54 schools in History and 43 schools in Accounts. Almost all the schools did not have more than 8 teachers in each of the subjects except Biology, Economics and Geography. This implies that there was shortage in the number of qualified teachers to the schools on subject basis.

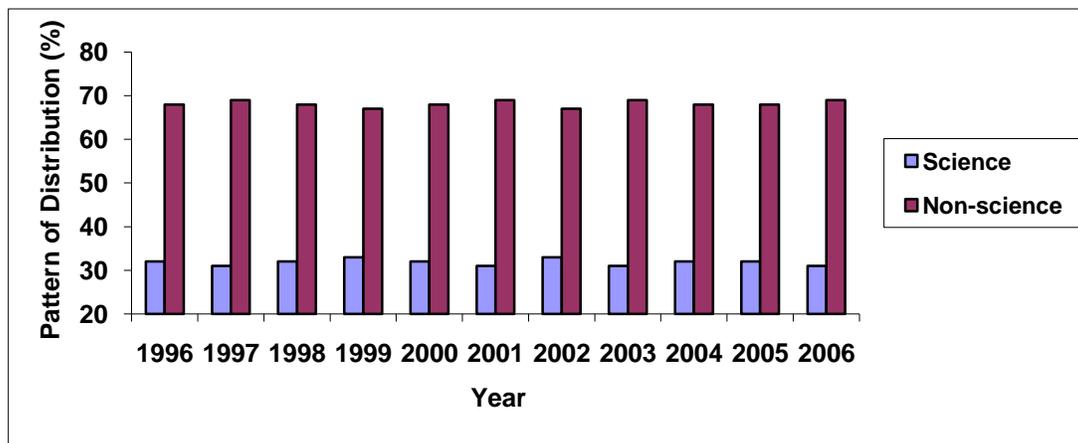
*Question 6 How does the distribution of qualified Science teachers compare with the distribution of non-science teachers in secondary schools in Ekiti State, Nigeria?*

In answering this question, data on the distribution of teachers on the basis of science and non-science subjects were collected from the respondents using the inventory. The data were analyzed with the use of percentages. The findings showing the ratio of all science teachers to non-science teachers in all the schools are presented in Table 8. As shown in the table, the distribution of teachers favoured non-science subjects than science subjects. The trend in the distribution was almost the same in all the years. There was no year where the ratio of science teachers to non-science teachers was 40: 60 as enunciated in the Nigerian National Policy of Education (Federal Republic of Nigeria, 2004).

**Table 8 Pattern of distribution of science and non-science teachers to secondary schools in Ekiti State, Nigeria**

Years	Total number of teachers in post	Number of Science		Number of Non- Science Teachers	
		No	%	No	%
1996	3,264	1046	32	2218	68
1997	3450	1070	31	2380	69
1998	3518	1126	32	2392	68
1999	3841	1267	33	2574	67
2000	4082	1306	32	2776	68
2001	4221	1310	31	2911	69
2002	4576	1512	33	3064	67
2003	4710	1460	31	3250	69
2004	4963	1588	32	3375	68
2005	5284	1690	32	3594	68
2006	5415	1680	31	3735	69
Average	total		32		68

On the average, the ratio of science teachers to non-science found in all the years was 32:68. Figure 2 shows the graph depicting the trend in the distribution of science and non-science teachers in the schools.



**Figure 2** Graph showing the trend in the distribution of science and non-science teachers to secondary schools in Ekiti State, Nigeria

In Figure 2, there was a sharp difference between the distribution of qualified science and non-science teachers to secondary schools in the state. The difference is unprecedented in all the years examined. Table 6.2 shows the distribution of qualified and unqualified science and non- science teachers to the schools.

**Table 8 Distribution of Qualified and Unqualified Science and Non- Science Teachers in Secondary Schools in Ekiti State, Nigeria**

Years	Total Number of teachers in post	Science Teachers				Non- Science Teachers			
		No of qualified science teachers in post	%	No of unqualified science teachers in post	%	No of qualified non-science teachers in post	%	No of unqualified non-science teachers in post	%
1996	3,264	610	18.7	436	13.4	1542	47.2	676	20.7
1997	3450	798	23.1	272	7.9	1951	56.6	429	12.4
1998	3518	875	24.9	251	7.1	1985	56.4	407	11.6
1999	3841	963	25.1	304	7.9	2098	54.6	476	12.4
2000	4082	987	24.2	319	7.8	2255	55.2	521	12.8
2001	4221	998	23.6	312	7.4	2451	58.1	460	10.9
2002	4576	1202	26.3	310	6.8	2573	56.2	491	10.7
2003	4710	1131	24.0	329	7.0	2740	58.2	510	10.8
2004	4963	1210	24.4	378	7.6	2749	55.4	626	12.6
2005	5284	1412	26.7	278	5.3	3143	59.5	451	8.5
2006	5415	1409	26.0	271	5.0	3313	61.2	422	7.8

In table 6.2, the findings revealed that there was a shortfall in the number of qualified science teachers in secondary schools in the State. The pattern of distribution of these teachers was also found to be lopsided. In 1996, for example, the percentage of qualified science teachers was only 18.7% while that of unqualified science teachers was 13.4%. In year 2006, the percentage of qualified science teachers was just 26.0% while that of unqualified science teachers was 5.0%. Conversely, the percentage of qualified non-science teachers was 47.2% in 1996 while that of unqualified non-science teachers was 20.7%. In year 2006, the percentage of qualified non-science teachers was 61.2% while that of unqualified non-science teachers was 7.8%. Figure 3 shows the graph depicting the trend in the distribution of the teachers.

In Figure 3, the graph shows an uneven trend in the distribution of science and non-science teachers in the schools. The trend also shows a wide difference between the distribution of qualified science and non-science teachers in the schools. The distribution of unqualified science and non-science teachers was almost the same. The graph shows that qualified science teachers were in small numbers in the schools compared to non-science teachers and it suggests that there had not been an equitable distribution of teachers to secondary schools in the State.

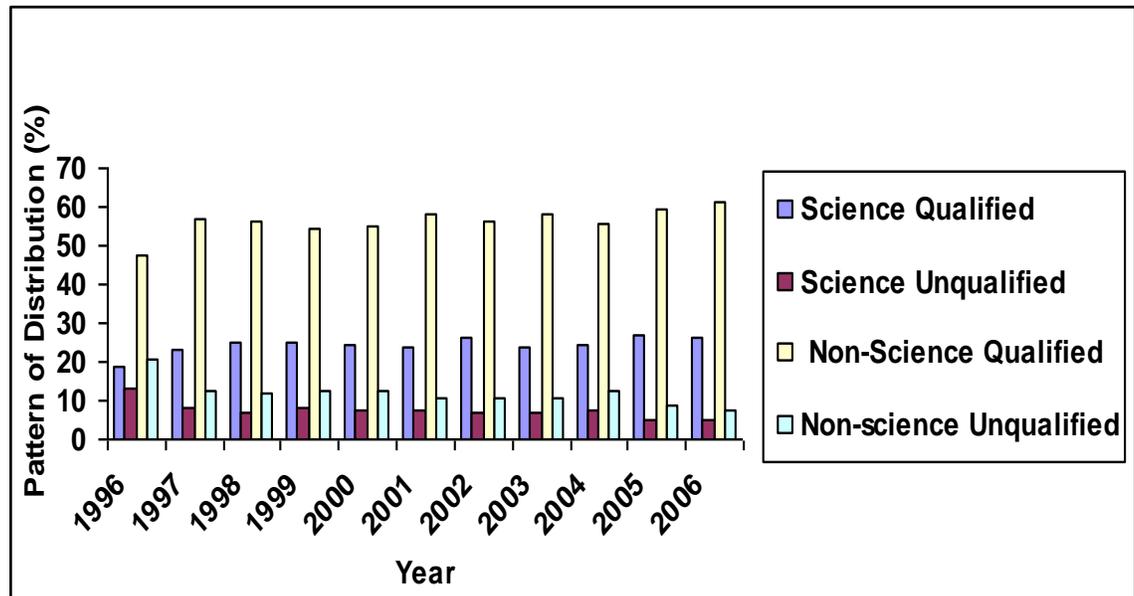


Figure 3 Distribution of science and non-science teachers in the schools

## Discussion

In the forgoing, the analysis of data in respect of the distribution of teachers to secondary schools in Ekiti State, Nigeria was made. The tremendous growth in students' enrolment found in this study had serious impact on teacher availability in the schools. Unqualified teachers were found to be in large numbers in all the years. This is an indication that qualified teachers are in still in short supply to schools. Further analysis shows that there was an even trend in the number of qualified teachers to all the schools. Teachers holding the Nigeria Certificate of Education (NCE) qualification had an increasing proportion from 1996 when they accounted for 28.4% of the total number of teachers in the schools to 2006 when they accounted for 51.8%. This implies that NCE teachers were still in great numbers in the schools. This finding was consistent with those of previous researchers (Nwadisani, 1996; Obaji, 2006)). Students' enrolment rose from 91,450 in 1996 when the State was created to 156,537 by year 2006 (an increase of 71.1%). However, the annual enrolment growth rate in the schools was 5.6% found in this study was contrary with those of other researchers (Adeyemi, 1985, Nwadiani, 1996).

The findings indicating that the class-size in the schools ranged between 29 and 32 for all the years while the average class-size for all the years was 30 was consistent with the findings made by Adesina (1982) who found similar class-size in secondary schools in Ogun State, Nigeria. The findings also agreed with findings made by Adeyemi, (2004) in a related study in Ondo State, Nigeria. In the same vein, the findings indicating that the average teacher-pupil ratio in primary and junior secondary schools was 1:30 was supported by the findings in other previous studies (Chapman 1994; Bradley, 1999).

The findings indicating that the number of teachers in urban schools was greater than the number in rural schools in each of the years of study agreed with the findings in previous researchers (Jack, 1983; Akangbou, 1987; Fideler & Haselkorn, 1999). In a situation whereby all the teachers in urban and rural schools should be qualified teachers, the

presence of unqualified teachers in high proportions implies that there was a disparity in the distribution of qualified teachers to schools in the State. This finding agreed with those of other researchers (Islas; Murray; Hirsch; & Luczak, 2006; Olugbile, 2007). This suggests that not much effort has been made in the distribution of qualified teachers into secondary schools in the State. The finding indicating that a large number of schools had two or less than two teachers in core subjects of the school curriculum such as English Language, Mathematics, Physics and Chemistry shows the high rate of shortages of qualified teachers in secondary schools in the State.

The findings of the study indicating that the distribution of teachers favoured non-science subjects more than science subjects imply that qualified science teachers were in serious shortage in the schools. The ratio of qualified science teachers to qualified non-science found in this study ranging between 38: 62 and 39: 61 was contrary to the 40: 60 ratio of science to non-science teachers recommended by the National Policy of Education (Federal Republic of Nigeria, 2004).

On the whole, the findings revealing the shortages qualified science teachers in secondary schools in the State agreed with the findings of other researchers (Straker, 1988, Lowe, 1991; McNamara, 1995). The fact that there were more teachers in urban schools than in rural schools is an indication of lopsidedness in the distribution of teachers to schools. This finding agreed with the findings of previous researchers (Psacharopoulos & Woodhall, 1985; Chapman, 1994; Ijaiya, 1998; Fideler Haselkorn, 1999; Onoja, 2005) and it suggests that State government had not been paying much attention to the equitable distribution of teachers to schools.

### **Conclusion**

Considering the findings of this study, it was concluded that there had been a lopsided distribution of teachers to secondary schools in Ekiti State, Nigeria, the increase in the enrolment growth rate of students has led the researcher to conclude that qualified teachers had not been equitably distributed into secondary schools in the State. The distribution of teachers favoured urban schools at the expense of rural schools. It also favoured non-science subjects at the expense of science subjects.

### **Implications for Planning**

The increase in the enrolment growth rate of students has created much demand for the recruitment of more qualified teachers into the schools. The considerable shortfall in the number of qualified teachers as revealed in this study implies that effective teaching might not have been taken place in most of the schools. The disparity in the distribution of qualified teachers between urban and rural schools implies that urban schools have better opportunity of getting more qualified teachers than rural schools and hence better teaching and learning processes. The shortage of qualified science teachers as revealed in this study made the offering of science subjects by students unpopular in many schools especially in the rural areas. This implies that many students would tend to rush to offering non-science subjects at the expense of science subjects. As a result, there was the tendency of not ensuring equal educational opportunities for all students to offer science subjects alongside with non-science subjects in schools. This situation could seriously jeopardize the good intention of government in its bid to orientate its development

towards science and technology as stipulated in the National Policy on Education. This suggests that government should adopt effective planning processes to ameliorate the disparity in the distribution of qualified teachers to secondary schools in the State.

### **Recommendations**

Based on the findings of the study, it was recommended that the State government should make it mandatory on any teacher not to refuse posting to any part of the State, whether urban or rural. This is to correct the disparity in the distribution of qualified teachers between urban and rural schools. In those days when the orientation in this country is towards science and technology, government should make it a matter of policy to post qualified science teachers to all schools in the State equitably irrespective of the location of the schools. This would enable every student to have equal opportunity of offering science subjects in schools. The condition of service of teachers should be reviewed and made more attractive and lucrative. Teachers' salaries should be raised above their counterparts in other sectors while fringe benefits such as car loan, housing loan and leave allowance should always be paid to teachers. Rural allowance should be paid to all teachers posted to rural areas while science allowance should also be paid to all qualified science teachers in order to encourage other science graduates to take to teaching profession and to make those already in the profession to stay on the job.

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