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Effect of National Feeding Programme on Pupils' School Attendance in Chanchaga Local Government Area, Niger State.

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Abstract

National feeding programme is strategized to enhance and sustain elementary education as well as improving nutritional intake in school children. One of the primary objectives of the scheme is to retain and improve school attendance in government schools. After 5 years of implementing the school feeding programme in Nigeria, This study seeks to evaluate the effects of feeding programme on school attendance in Chanchaga local government area of Niger state. Quantitative data were employed during this study. There are 34 public primary schools in Chanchaga LGA that benefit from the feeding programme and 9 schools were sampled to represent the nine geo-political wards in Chanchaga LGA. Pupils in primary 1 to primary 3 are the ones benefitting from the feeding programme. A total of 1,363 questionnaires were distributed across the 9 schools using macorr online calculator to determine the sample size of each school. Results showed that 52% of the pupils were females and the menu for feeding was based on local crops grown within the state. Majority (78%) of the pupils attend school without food in their lunch flask while 57% of the pupils do not take money to school for feeding purpose. This study revealed that, pupils' average school attendance is higher (2,541,420 annually) after the commencement of school feeding programme in Chanchaga LG than before (2,081,160 annually) the commencement of school feeding programme. The p-value reported for equal (0.008) and unequal (0.009) variances is lower than .05 implying that there is a

statistically significant variation in pupil's school attendance before and after the commencement of school feeding programme using T-test. National School Feeding Programme is a good programme that aid parents and households. Research has shown that it is a booster of school attendance in Chanchaga Local Government Area. Government should extend the programme to classes 4-6 so they can also benefit from the feeding programme.

Keywords: *Attendance, Feeding, Programme and Pupils*

Introduction

Generally, some of the benefits of school feeding from literature include alleviating hunger, reducing micronutrient deficiency and anaemia, preventing overweight and obesity, improving school enrolment and attendance, increasing cognitive and academic performance, and contributing to gender equity in access to education (Adelman *et al.,* 2008; Bundy *et al.,* 2018; World Food Programme (WFP), 2013; Aliyar *et al.,* 2015). In 2005, President Olusegun Obasanjo launched the introduction of government school feeding programme as pilot programme in 13 states, but after a few years, only south western Osun state maintained it (Linus, 2018). In 2016, President Muhammadu Buhari administration reintroduced the home grown school feeding programme as part of his multi-billion naira funded National Social Investment Programme (NSIP) to address poverty, hunger and unemployment in Nigeria (Linus, 2018). The programme was also revived to encourage children from poor families have access to primary education and increase enrolment in schools. Setting priority for SFP is fundamental in reducing the short- term hunger, providing learner's cognitive function and enhancing the learning environment (Lawson, 2012).

It has been Five years since the implementation of the programme, little is known about the impact of the programme on school enrolment and attendance in general. Previous studies or reviews on school feeding programme are either out-dated, out of scope or conducted in developed countries of the world (Kristjansson *et al.,* 2007, Jomaa *et al.,* 2011, Watkins

et al., 2015), thus they do not reflect all the current available evidences. For example, the studies of Kristjansson *et al.*, (2007) and Jomaa *et al.*, (2011) focused on physical and health outcome of the programme, but not on educational and social outcome. Obviously, most of the studies were conducted in developed countries and not developing countries like Nigeria where the programme is still at an infant stage. This study is therefore an attempt to evaluate the effect of the home-grown school feeding programme as it affects pupil's school attendance in Chanchaga LGA of Niger State.

Aim and Objectives of the Study

The aim of the study is to examine the effects of national feeding programme on public primary school attendance in Chanchaga Local Government Area with a view to suggesting ways of improving the programme. In achieving this, the study assessed the pupils' daily feeding pattern as well as examined the pattern of pupils' school attendance before and after commencement of school feeding programme.

Literature Review

The Concept of School Feeding

School feeding is conceptualised as an act of providing food for schoolchildren (Bundi *et al.*, 2009; Tijjani *et al.*, 2017). According to Oyefade (2014), school feeding programme has several models and countries have adopted one or a combination of these models based on the objectives of the country. Bundi *et al.* (2018) classified the concept of school feeding into two broad perspectives, namely: in-school feeding and take-home rations. As Tijjani *et al.* (2017) and Aurino *et al.* (2018) explains, in-school feeding is a situation whereby the students/pupils are given food within school premises; while, on the other hand, take-home rations represent a situation where the students/pupils are given a specified measure of food/foodstuff to take home. It can also involve directly providing the parents of the students/pupils a specified type of food so as to improve the nutritional intake of the households, improve the physical and mental wellbeing of the schoolchildren (Sullivan, 2002; Broca and Stamouli, 2003; Bundi *et al.*, 2009). Drake *et.al* (2018) conceptualised school feeding programme as contributor to multiple objectives which include social safety nets, education, nutrition, health, and local agriculture.

Nexus between school feeding programme and school attendance

According to a study conducted by Azurilah, (2020), a direct link exists between school feeding and education. It is a social intervention that motivates and addresses the needs of school children. Through the instrumentality of SFP, children's drive to attend school and their capacity to learn are enhanced, thereby increasing children's access to education particularly in areas with low school enrolment. Several assessments and evaluations on the effects of the SFP have been conducted since 2001 in India and the results have almost always shown that, the programme contributed positively towards improving enrolment, attendance, retention and elimination of classroom hunger. A school feeding programme impact assessment of the India's Mid-Day Meals (MDM) programme as stated in Drezè *et al.,* (2001) revealed that school attendance among girls improved by 15% in schools that were benefiting from the programme than in non-beneficiary schools. In Pakistan, the School Feeding Programme also boosted girl child education as records indicated that 48% of households were not sending any of their daughters to school before the introduction of the programme and all households after the implementation of the programme; educate at least one of their daughters.

In Kenya where pre-school children received meals at school, attendance increased by 8.5% than schools without school feeding (Kiilu & Mugambi, 2019). A comprehensive analysis of these and other research works on SFP in less developed countries also indicated significant improvement in attendance for students receiving in-schools meals as compared with students without in-school meals. Yendow & Dayour (2015), conducted a study which established the contributions of SFP on pupils' attendance to school in the Savelugu-Nantong Municipality, Ghana. The study revealed that the programme hugely contributed towards pupil's attendance and retention in beneficiary schools. According to study's result, only 22% of the pupils were attending school throughout the week before the inception of the programme while 36.7% of the pupils were attending school three times or less in a week. After the implementation of the programme, pupils' attendance to school throughout the week stood at 65.4%. This goes to copiously establish that the introduction of the SFP contributed immeasurably towards the phenomenal increase in pupils' school attendance (Atta *et al.*, 2015).

THE STUDY AREA

Niger State, the middle belt of Nigeria has its State capital as Minna. **Minna is** located at 9.62 latitude and 6.55 longitudes with 243m elevation above the sea level (Google, 2019). Minna is surrounded by Shiroro Northwards, Paikoro Eastwards, Katcha Southwards and Wushishi in a Westerly direction. Minna is divided into two Local Government Areas namely Bosso LGA and Chanchaga LGA as shown in figure 1.

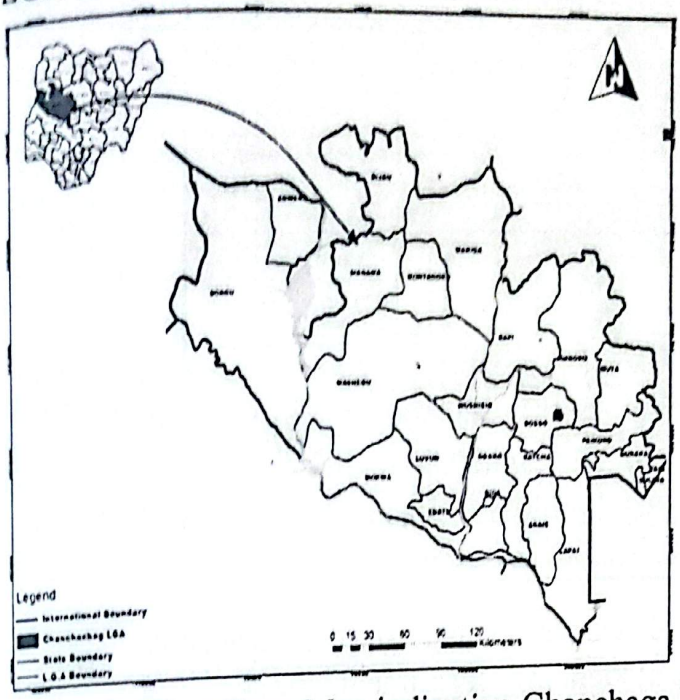

Figure 1: Niger State Map indicating Chanchaga LGA
Source: Urban and Regional Planning Department, 2019

Chanchaga LGA of Minna in 1991 had summed -up population of 143,896 people, of which, 70,133 were male, while, 65,743 were female. Total population of the LGA in 2006 increased to 202,151; with the males accounting for 105,265 and the females accounting for 96,886 (Niger State Bureau of Statistics, 2011). Using the formula for population projection [$Pr = Pb(1 + r/100)n$] and growth rate of 3.5% as obtained in Niger State, the estimated projected population of Chanchaga LGA in 2019 was 316, 155.

METHODOLOGY

This research employed a descriptive survey research design; data required in response to this research were derived from primary and secondary data sources. The instruments used for data collection for this study include;

structured questionnaire, assessment form, Global Positioning System (GPS) and direct observation. Chanchaga LGA has a total of 34 pubic primary schools benefitting from the National school feeding programme distributed across nine (9) geo-political wards of the Local Government. Hence, one school was selected from each of the nine geo-political wards for assessment as shown in figure 2.

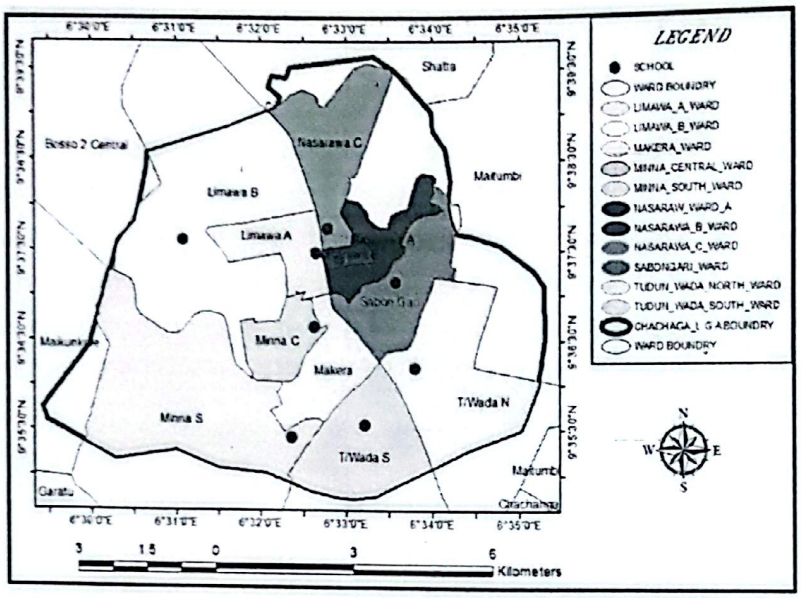

Figure 2: Ward Map Showing Geographical Location of Schools
Source: Urban and Regional Planning Department, 2021

The study adopted a multi-stage sampling technique. Stratified random sampling technique was employed in the selection of one school from each of the nine (9) geo-political wards where the schools are located. However, for the purpose of the study, the questionnaires were purposively administered to pupils in classes 1 – 3 only because pupils in these classes are the direct eligible beneficiaries of the programme. The sample size for all the public primary schools in Chanchaga LGA is presented in Table 1. The sample size of the schools selected was determined using Macorr online calculator with confidence level of 95% and confidence interval of 5%. Sample size was determined using PC / PS x SS (adapted formula).

Where: PC = the total number of pupils in the class;
PS = the total number of pupils in the school and
SS = the total sample size per school.

Table 1: Sample Size for Schools in Chanchaga LGA

s/n	Selected Schools	Sample Size for each Class (Primary 1 – 3)			Total Sample Size per School
		1	2	3	
1	Kuyanbana Primary School	47	47	52	146
2	Barikin Sale Primary School	57	57	55	169
3	UBE Angwan Kaje Primary School	54	53	53	160
4	UBE Tunga North Primary School	47	47	55	149
5	Umaru Audi Memorial Primary School	38	36	56	130
6	UBE Waziri Primary School	46	45	50	141
7	Kwasau Primary School	39	50	49	138
8	IBB Primary School	58	54	55	167
9	Aliyu Muazu Sarkin Yaki Primary School	56	58	49	163
Total					1,363

Source: Researcher, 2021

The data gathered for this study were subjected to inferential and descriptive statistics. The descriptive statistical tools employed comprise frequency, percentage, mean, minimum, maximum and standard deviation. The pattern or trend of Pupils' school attendance before and after the commencement of school feeding programme was also subjected to T-test analysis.

RESULT AND DISCUSSION

Pupils by Gender

The number of pupils in public primary schools in Chanchaga LGA was assessed based on their gender and year 2021 school enrolment. The result is presented in Table 2. The study revealed that male pupils in the selected public schools in Chanchaga LGA were 48% while female pupils were 52%. This indicates that there is an increased awareness in the education of a girl child which will on the other hand; reduce illiteracy and its consequences.

Table 2: Number of Pupils by Gender

Name of School	Gender (2021 enrolment)		Total Number of Pupils
	Male	Female	
Kuyanbana Primary School	901	838	1739
Barkin Sale Primary School	1723	1694	3417
Ube Angwan Kaje Primary School	1115	1119	2234

UBE Tunga North Primary School	705	882	1587
Umaru Audi Memorial Primary School	754	811	1565
UBE Waziri Primary School	535	560	1095
Kwasau Primary School	525	1069	1594
IBB Primary School	1069	1036	2105
Aliyu Muazu Sarkin Yaki Primary School	756	778	1534
Year 2021 enrolment total	8083 (48%)	8787 (52%)	16870 (100%)

Source: Researcher, 2021

Number of Meals per Day

The number of meals pupils take per day in Chanchaga LGA was analysed and result shown in Figure 3. The analysis revealed that 55 % of pupils enjoy three times meal per day, 27 % eat more than three times in day which is over one quarter of the sampled population and only 2 % of the pupils eat once in a day. It's however safe to say that in relation to meal, poverty does not have significant bearing on the pupils because over 80 % of the pupils enjoy three-square meal.

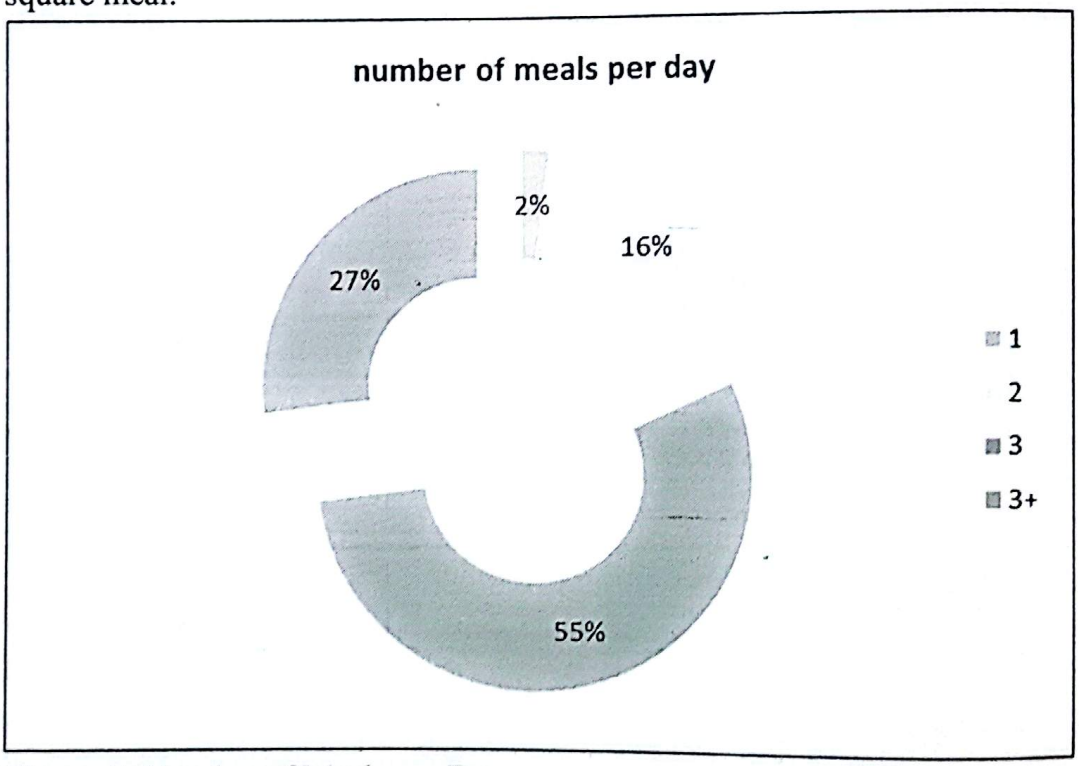

Figure 3: Number of Meals per Day

Source: Researcher, 2021

Food in Lunch Flask

The number of pupils that go to school with food in their lunch flask daily in Chanchaga LGA was analysed and the result presented in Figure 4. The survey indicated that majority (78%) of the pupils go to school without food in their lunch flask while only 22% go to school with food in their flask. The high proportion of pupils that go to school without food in their lunch flask may be as a result of the food provided during lunch break through the school feeding programme.

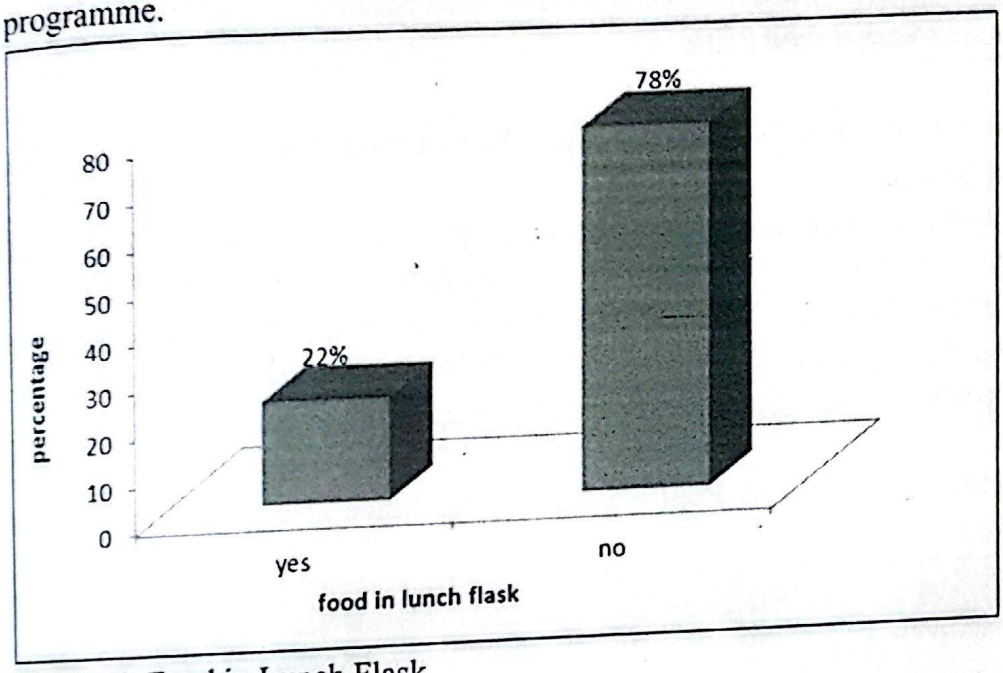

Figure 4: Food in Lunch Flask
Source: Researcher, 2021

Pattern of Pupils Attendance before the Commencement of School Feeding Programme

The analysis in Table 3 shows the pattern of pupils' attendance per year, five years before the commencement of school feeding programme in the public primary school in Chanchaga LGA. The study indicated that in year 2012 and 2013, both male and female pupils had equal attendance record (50%) in the schools. Consecutively, in 2014 - 2016, attendance for male pupils dropped to 48% and 49% respectively; while that of the female pupils increased to 51% and 52% respectively.

Table 3: Pattern of Pupils Attendance before the Commencement of SFP

Year of Attendance	Gender		Total
	Male	**Female**	
2012	937,260 (50%)	930,600 (50%)	1,867,860 (100%)
2013	974,160 (50%)	962,820 (50%)	1,936,980 (100%)
2014	1,004,400 (48%)	1,089,720 (50%)	2,094,120 (100%)
2015	1,062,180 (49%)	1,126,080 (51%)	2,188,260 (100%)
2016	1,124,100 (48%)	1,194,480 (52%)	2,318,580 (100%)

Source: Researcher, 2021

Pattern of Pupils Attendance after the Commencement of School Feeding Programme

The analysis of pupils' school attendance per year, five years (2017-2021) after the commencement of school feeding programme in the nine selected public primary schools is shown in Table 4. The study showed that the female pupils recorded an average attendance of 52% while the male pupils recorded an average attendance of 48% for the five years under review.

Table 4: Pattern of Pupils School Attendance after the School Feeding Programme

Year of Attendance	Gender		Total
	Male	**Female**	
2017	1,119,960 (48%)	1,189,620 (52%)	2,309,580 (100%)
2018	1,159,020 (48%)	1,267,020 (52%)	2,426,040 (100%)
2019	1,277,100 (49%)	1,342,080 (51%)	2,619,180 (100%)
2020	1,208,160 (49%)	1,239,300 (51%)	2,447,460 (100%)
2021	1,294,020 (45%)	1,610,820 (55%)	2,904,840 (100%)

Source: Researcher, 2021

Changes in Attendance Pattern before the Commencement of School Feeding Programme in Chanchaga LGA

The analysis on the changes in attendance pattern of pupils in the 9 selected schools across the LGA, over a period of five years (2012-2016), before the commencement of school feeding programme is shown in Figure 4. The study showed that there were distinct changes in the attendance pattern of pupils in

schools over time. From Figure 5, in 2013, there was a rise of (3.7%) in the pupils' school attendance. Subsequently, in 2014, there was a record of 18% increase in attendance of both male and female pupils in the public schools. However, in 2015, there was a drop (4.5%) in the pupils' attendance in the public schools in the LGA. Furthermore, in 2016, there was a conspicuous significant change in the attendance pattern of pupils into the selected schools such that the enrolment rose to 6.0% across the schools. By implication, the increase in pupils' school attendance across the LG in 2016 was influenced by the introduction of the national home grown school feeding programme.

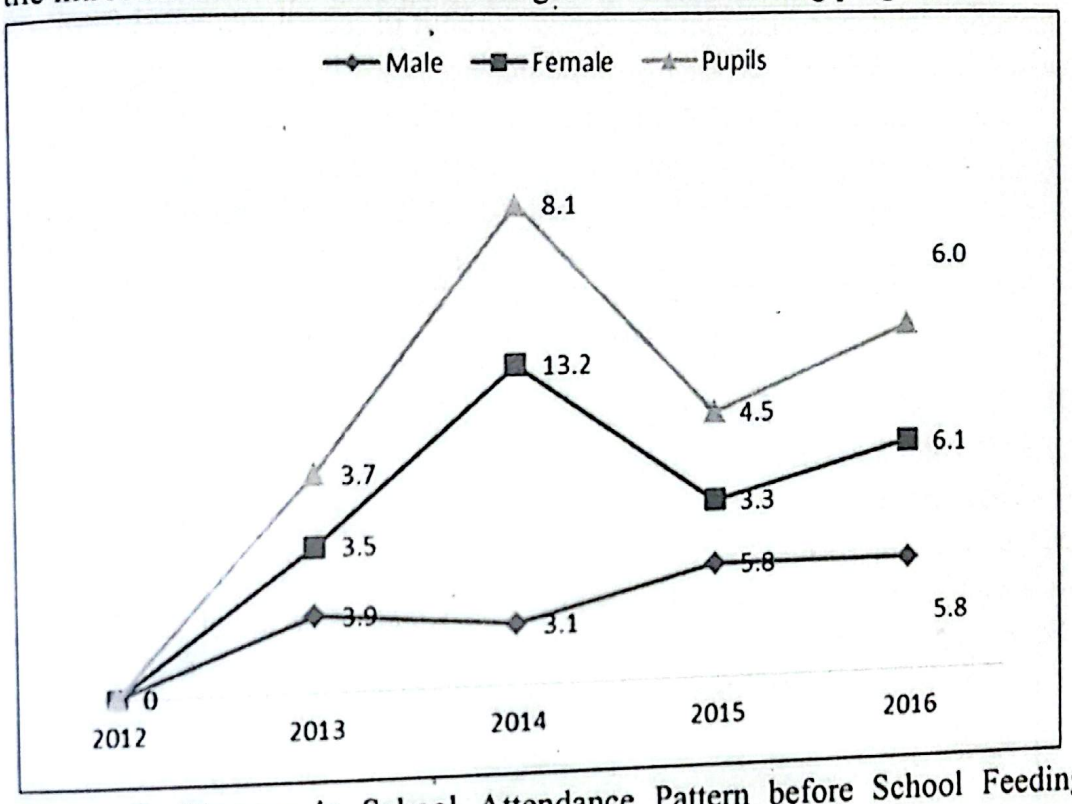

Figure 5: Changes in School Attendance Pattern before School Feeding Programme

Source: Researcher, 2021

Changes in Attendance Pattern after the Commencement of School Feeding Programme in Chanchaga LGA

The analysis on the changes in attendance pattern of pupils in the selected public schools in the LGA, after the commencement of school feeding programme (2017-2021) is shown in Figure 6. In 2018, there was an obvious change (5%) in the pattern of pupils' school attendance in the public schools. The attendance

of these pupils in the schools improved as it was recorded 8% in 2019. This increase in school attendance may not be unconnected to the food served pupils while in school hence they look forward to going to school every day. However, in year 2020, there was a negative decline in school attendance pattern (-6.6%) across the LGA. The decline in attendance was as a result of Covid'19 pandemic which led to lockdown and the introduction of stringent protocols such as social distancing. The process of observing the Covid'19 protocol must have affected the feeding programme which in turn affected the pupils' turnout in the public schools. In 2021, there was a drastic positive change in the pattern of pupils' school attendance such that the pupils' turnout in school increased from -6.6% to 18.7%. This positive change in attendance must have been triggered by the Government conscious effort in pulling and retaining children in school through the feeding programme. This can also be corroborated with the fact that most of these pupils don't come to school with food because they already expect to be taken care of by the national school feeding programme.

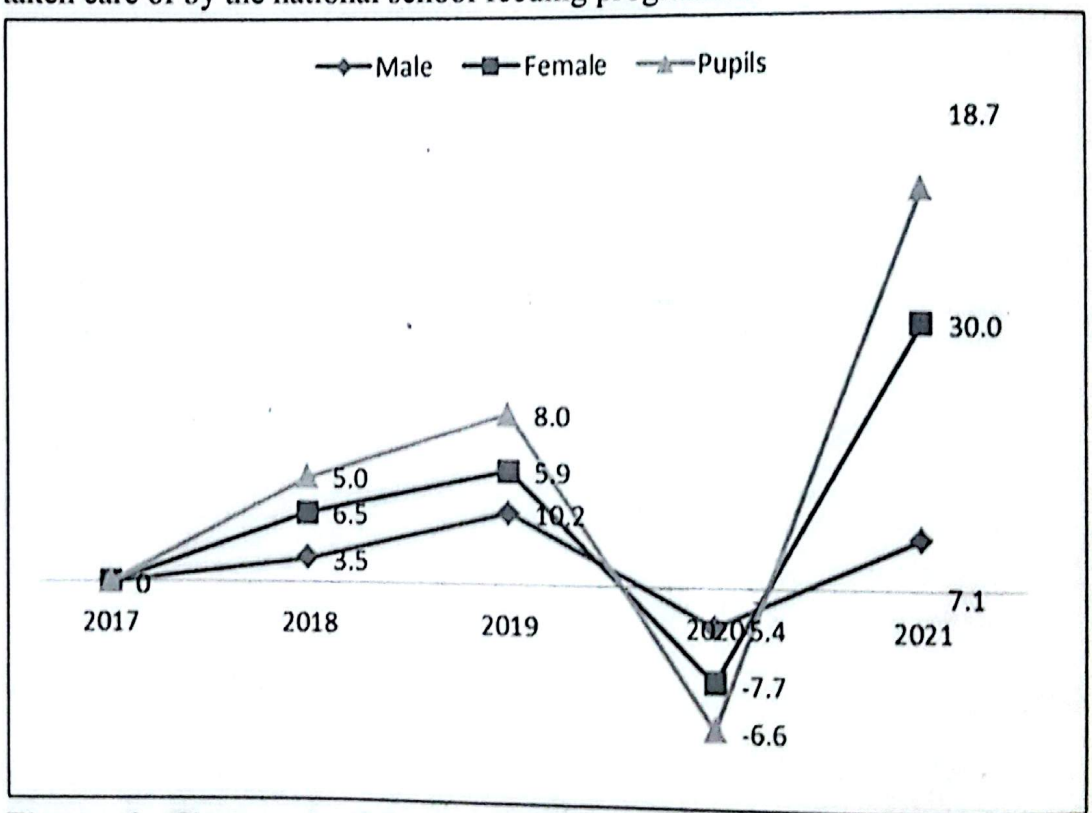

Figure 6: Changes in School Attendance Pattern after School Feeding Programme

Source: Researcher, 2021

Pupils School Attendance Five (5) Years before and after the Commencement of School Feeding Programme in Chanchaga LGA

The study shows that average school attendance of all the pupils in the public schools became higher after school feeding programme commenced in Chanchaga Local Government. Table 5 shows that the mean attendance of pupils before the SFP was 2,081,160, while average attendance of pupils after the commencement of the feeding programme was 2,541,420 annually. From the analysis, this indicates that there is increase in attendance record of pupils after the commencement of the feeding programme in the public schools.

Table 5: Pupils Attendance Pattern Before and After SFP in Chanchaga LGA

	N	Mean	Std. Deviation	Std. Error Mean
Total Pupils (Before)	5	2,081,160	183,228.95	81,942.48
Total Pupils (After)	5	2,541,420	231,306.9	103,443.59

Source: Researcher, 2021

Furthermore, the variation in pupils' school attendance pattern before and after the commencement of SFP in Chanchaga LGA is presented in Table 6. The one sample T-test recorded a p-value of 0.008 for equal variance and 0.009 for unequal variance. This shows that the p-value reported for equal and unequal variances is lower than 0.05. Hence, this implies that there is a statistically significant variation in the pattern of pupil's school attendance before and after the commencement of school feeding programme in Chanchaga LGA.

Table 6 : Variation in the Pattern of Total Pupils Attendance

		t	df	p-value (2-tailed)
Pupils (Before) – Pupils (After)	Equal variances	-3.49	8	.008
	Unequal variances	-3.49	7.6	.009

Source: Researcher, 2021

CONCLUSION AND RECOMMENDATION

National School Feeding Programme is a good programme because it's meant to augment parents and households effort in children education. However, it is not an incentive to pupils' enrolment into public primary school but rather a

booster of school attendance in Chanchaga Local Government Area. Result has shown clearly that school feeding programme has good effect on school attendance of pupils as indicated in the five year variation analysis. Thus, State Government in collaboration with the Federal Government should include those classes (primary 4 -6) that are not currently eligible for the school feeding programme because some of the pupils in these classes are also from poor homes who cannot afford three-square meal in a day hence the programme becoming a relief to their parents.

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