Journal of Education and Practice
ISSN 2222-1735 (Paper) ISSN 2222-288X (Online)
Vol.5, No.20, 2014

A Comparison of "Well Endowed" and "Deprived" Districts in Education Delivery in Ghana

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Abstract
The Pilot Programmatic Scheme (PPS) of the World Bank was brought on board by the Government of Ghana and the Ministry of Education to provide assistance to deprived districts to enable them fast track the achievement of performance indicators in education delivery. Using the analysis of variance technique, the growth rate performance in primary gross enrolment rates of schools located in deprived and endowed districts that were randomly sampled were compared. Results revealed that both deprived and endowed districts experienced similar average growth rates in primary gross enrolment. The analysis of variance showed that, performance over the period 2007 – 2010 between deprived and endowed districts considered were not significantly different. Results imply that the PPS has worked for selected areas. It is recommended for more support and widespread capacity strengthening for all District Education Directorates to enable Ghana meet the International Commitments in the MDGs enshrined in the Education Strategic Plan and Ghana Poverty Reduction Strategy.

1.0 Background

The Ghanaian Ministry Education has come under increasing pressure to meet international development objectives captured under the Education Strategic Plan, the Millennium Development Goals (MDGs) as well as the Education for all goals. The pointers have included attaining performance indicators on access, equity and quality. The existence of disparities in terms of development according to Ansah (2011) put some districts at a disadvantage. Accordingly, Ansah (2011) argues that the pilot Programmatic Scheme of the World Bank was brought on board by the Government of Ghana and the Ministry of Education to give some assistance to deprived districts to enable them fast track the achievement of performance indicators.
Against this backdrop, the Ministry of Education has invested in series of interventions aimed at achieving the targets set in the Education Plan (ESP) 2003 – 2015 and the ESP 2010-2020.

This is to ensure that all pupils within school going age are enrolled and complete the basic education cycle. The Ministry therefore, according to Ansah 2011, commits itself through its strategic plan to deliver quality education to all Ghanaians by ensuring increased access to and participation in quality education and training for children at all levels.

Ansah (2011) further argues that, in ensuring quality delivery of educational services, one of the key parameters is to ensure that the school environment exhibits or provides the congenial atmosphere that inspires creativity, promotes learning through fun and attracts and retains the pupil in the school systems thus enabling quality education delivery and achievement in pupil learning outcomes.

The Ghanaian Education Strategic Plan has been informed according to (Ansah, 2011) by series of research papers in the field of education written both by Ghanaian and non-Ghanaian Researchers (including: Cavicchioni & Motivans (2001); MOE, 2003; NDPC, 2005). Furthermore, the development of the ESP has been informed by International declarations for which the government of Ghana is a signatory. Some of these documents have advocated for the eradication of extreme poverty and hunger, achievement of universal primary education, promotion of gender equality and women empowerment, improving equitable access to and participation in quality education at all levels, improving quality of teaching and learning, improving access to quality education for people with disability, promotion of science and technical education at all levels, strengthening links between tertiary education and industry and improving management of education service delivery.

EMIS, 2006 cited by Ansah (2011) reveals that, performance trends of some Districts in Ghana on some selected education performance indicators were discouraging making it reasonable to belief that those less performing districts would have implications on the Ghana's attainment of the set of sectoral targets defined in the sector

Strategic Plan (MOE, 2003; NDPC, 2005). The National Development Agenda, according to (NDPC, 2005) identifies education as one of the key pillars for attaining the objectives of the GPRS I & II. The poor performance of some of the districts offered indication that there might be geographical disparities confronting the national development and more especially in achieving the overall objectives of the education sector. This need led to the initiation of a pilot project (Pilot Programmatic Scheme, PPS) between the World Bank and the Government of Ghana to cushion the less performing districts which were identified as deprived.

The Pilot Programmatic Scheme became a component of the Education Sector Project (EdSEP), being funded under a World Bank grant facility from 2005-2010. According to Ansah (2011), the project targeted 53 Districts that were considered deprived in terms of education delivery. The selection of 53 districts was based on rankings in the country on education performance indicators. The 53 districts fell below the threshold established by an average of the set of performance indicators used.

Those districts considered deprived were provided additional funding support in the project to improve their performance in terms of improvement in education management, girls' access to education, quality of teaching and learning in basic schools and maintenance of school infrastructure. But it is not clear whether the deprived districts have indeed made improvement in girls' access to education, and seen improvement in the quality of teaching and learning in basic schools and in the maintenance of school infrastructure. It is also not certain whether the average annual growth of selected deprived districts compared well against those of the selected districts considered to be well endowed in terms of primary gross enrollment and primary completion rates.

It is possible that differences between deprived and endowed districts have been eliminated because of the implementation of intervention in those 53 deprived districts to bridge the gap between the deprived and endowed districts. However, this has not been investigated. This study will confirm these explanations.
First, we will look at the relationships between the growth in primary gross enrolment rate of deprived and non-deprived districts. Second, we will assess the impact of the Pilot Programmatic Scheme (PPS) on the growth in enrolment figures for deprived districts against those of well-endowed districts which did not receive support from the PPS. Following that, we will determine if the Primary Gross Enrolment Rate (PGER) of benefiting districts of the PPS project is the same as or better than that of non beneficiaries and follow other factors that affect the deprived districts.

This study intends to test the hypothesis that deprived districts have performed better or equally as the well endowed districts on growth trends in primary gross enrolment rate

2.0 Literature Review

2.1 Out- of- School Children

According to the UN MDG report of 2013, in 2011, 57 million children of primary school age were out of school, down from 102 million in 2000. More than half of those out-of-school children lived in sub-Saharan Africa. The global figure was put at 123 million youth (aged 15 to 24) who lack basic reading and writing skills of which 61 percent are young women. While countries in the developed regions have made succeeded in expanding access to primary education, with the adjusted net enrolment rate growing from 83 per cent in 2000 to 90 per cent in 2011, countries in the sub-Saharan Africa region have not made much progress.
Between 2008 and 2011, the number of out-of-school children of primary school age fell by only 3 million. However, Southern Asia where the adjusted net enrolment rate of children of primary school age increased from 78 per cent to 93 per cent between 2000 and 2011 accounted for almost half the reduction in the global number of children out of school.

2.2 Household Poverty

Household poverty is the single most important factor keeping children out of school according to the MDG report of 2013. This is one of the findings of an analysis of data collected through household surveys in 63 developing countries between 2005 and 2011. Children and adolescents from the poorest households are at least three times as likely to be out of school as their richest counterparts. Location of residence also mattered. Rural children were nearly twice as likely to be out of school as urban children. Across the 63 countries, girls were more likely to be out of school than boys among both primary and lower secondary age groups. The gender gap in school attendance widened in lower secondary education, even for girls living in better-off households. One in four children who entered primary school was most likely to leave before reaching the last grade.

Over the period of 2001/2 to 2004/5, the primary gross enrollment rate (GER) in deprived districts in Ghana has seen a substantial increase of 14.2% compared with a fairly low increase of 0.5% in other districts considered well endowed and an increase of 4.4% at the national level (MoE, 2005). According the report, during the period under review, the three northern Regions in the country namely, Northern, Upper East and Upper West Regions have all recorded marked improvements in enrolments. The report note that there have been encouraging signs of faster growth than the national average, though this has been from a significantly lower baseline. Total enrolment across the three regions increased from 422,628 to 515,691, a growth rate of 22% and female enrollment increased from 189,688 to 242,210, a growth rate of 27.7% with positive performance in the individual Regions although to varying degrees.

Districts that have been denoted deprived districts tended to have the greatest number of classrooms in need of repairs which negatively impacted on enrolment growth among deprived schools. Further studies carried out by the Ministry of Education have revealed that, access to schooling tended to be more limited in areas with high levels of illiteracy, low levels of human resource development, low levels of economic development, low levels of democratic participation, high levels of infant and child mortality and morbidity and low levels of general family health (MoE, 2008).

The three Northern Regions of Ghana particularly have greater concentrations of these conditions more than any other region in Ghana. In these three Regions, there are poorer households, fewer (total and trained) teachers, low demands for education, poor infrastructure, limited community-school relationships, high teacher absenteeism, high migration and a rigid schooling system that does not account for the needs of the local rural communities (MoE, 2008).

2.3 Gross Enrolment Rates in Deprived Districts

According to the (MoE, 2008), the GER in deprived districts for kindergarten, primary and Junior High School levels respectively are 87.5%, 93.8% and 65.3%. The net Enrolment Rate (NER) for the deprived districts for kindergarten, primary and Junior High School levels are respectively: 62.7%, 77.9% and 43.8%. In terms of Gender Parity Index (GPI), the figures for the kindergarten, primary and JHS levels are as: 0.97, 0.94 and 0.90 respectively. Above statistics indicates that indicators for deprived districts are all below the national levels. However, one can identify that the growth in the indicators is improving remarkably suggesting a possible reduction in the gap between the endowed and deprived districts (MoE, 2008).

Ansah (2011) observed that there was a significant effect of household wealth on educational attainment in that children attained different levels of education across different wealth groupings within the basic education sector. Citing a 2003 CWIQ data of a population cohort aged between 15 and 19 years, Ansah, 2011 notes that out of the 65% of children who completed primary one from the poor wealth grouping, only 14% completed Junior Secondary School (JSS) three. And out of the 96% of children from the affluent wealth grouping who completed primary one, a much higher proportion (55%) completed JSS 3.

Furthermore, Ansah 2011 show that, the difference in enrolment between wealthy and poor households increased at higher levels of education. He attributed this to opportunity cost associated with sending a child to school at the JHS level (even though there are no fees paid opportunities for capitation grant exist). Ansah (2011), further notes that, at the SHS level, the boarding and other costs and charges are higher for good schools and this further deepens the disparities between the wealthy and low income folks.

2.4 Increasing Disparities

Otoo (2011) revealed that the percentage of trained teachers in public schools has decreased in recent years both nationally and for all the 53 deprived districts. At the same time the disparities between the deprived districts and the national averages have been increasing over the same period. An inquiry into reasons for continuous fall in the percentage of trained teachers in the public basic schools in Ghana showed that compared to the national indicator, the time series from 2001-2009 trend continues to exhibit a fall while the deprived district trend indicated a steeper curve compared to that of the well endowed districts.

The work of Otoo (2011) further showed that, more untrained teachers were taken into the classrooms to support

the teachers' corps as compared to the case of well endowed ones. The Pilot Programmatic Scheme (PPS) was intended to help deprived districts to improve progressively the percentage of trained teachers at both the primary and the JHS levels. The national percentage of trained teachers is 42.9% at the KG level, 59.4% at the primary level and 76.4% at the JHS level.

According to World Bank (2011, p5), the PPS project has contributed to the overall improvement in the outcome indicators. The report explained that available data on primary and JHS GERs have improved significantly between 2004 and 2011 from 76% to 95% for primary level and from 72% to 87% for JHS level. Gender parity at primary and JHS improved from 0.92 to 0.96 for primary level and from 0.86 to 0.92 for JHS level over the same period. Primary completion also improved appreciably over the period from 53% in 2004 to 87% in 2011.

2.5 Factors Influencing Performance of Primary Gross Enrolment Rate

According to Ansah (2011), the determinants of primary gross enrollment rate for a district include the district projected annual population growth rate in the districts and the enrolment in the classrooms. The national projected annual growth rate of 2.79% resulting from the year 2000 population and housing census was used as a blanket rate for all districts.

In reality, each district is likely to have its own population growth rate based on unique demographic data. Factors relating to migration, fertility rate and other determinants of population growth vary across districts. Rena (2007) revealed that income was a factor determining parents' inability to keep their children in School. Parents admitted in this study that they favored their male children over girls' children when confronted with choices as a result of insufficient income to keep all children in the household in school. Children with illiterate parenthood said they did not find help at home in reading and writing while females school children reported, they must earn a living to meet their family expenditure or quit school (Rena, 2007).

2.6 Quality Basic Education

According to GES, (2012), basic education, considered as the minimum period of schooling needed for every child to acquire basic literacy, numeracy and problem skills is very critical to Ghana as it is to every other nation. This is so because it provides opportunity for children to build the foundation for lifelong learning and knowledge-based economic and social development. In essence, most countries including Ghana spend large percentage of their resources in providing quality basic education.

Achieving good quality in education including basic education in Ghana, has brought on deck local and international efforts. Over the years, the World Bank, USAID, DfID as well as other multilateral and bilateral agencies have put in huge sums of money to improve education not only in Ghana but in other developing countries as well. In 1990, the World Declaration on Education for all, stressed the provision of basic education to all children, youth and adults. The declaration also emphasized the importance of high quality education to equip individuals with the necessary knowledge and skills to operate effectively as well as efficiently in their communities, societies and to be able to compete in an increasingly complex and competitive world (Baba, 2012).

Heyneman (1989; cited in Baba, 2012), states that, it is essential for people who experience education to acquire the basic tools of literacy and numeracy as well as gain skills in problem solving, critical thinking and the work habits of diligence, creativity and personal responsibility. According to Dare (2005), all the elements associated educational quality is interrelated. For that matter, a defect in one element is likely to have implications for quality in others. In Ghana, questions regarding quality education have generally included important aspect of the educational systems such as: infrastructure, school buildings, administration, leadership, management, teacher training, educational materials, teaching and student achievement (Ankomah et al, 2005).

Three major thrusts in efforts to improve the quality of education have been identified as follows (Bacchus, 199; cited in Baba, 2012): Raising the academic performance of pupils in subjects offered in schools using currently available resources; providing children with the education that is most likely to help them improve the quality of their lives when they become adults and increasing the rate of school enrolment by providing more places and reducing inequalities between the sexes and the different regions in a country.

Ghana like many other developing countries, is guided by international protocols such as the Education for All (EFA) and the Millennium Development Goals (MDGs), have initiated several interventions to reform their

education system. The 'Free Compulsory Universal Basic Education' (fCUBE), 'EQUAL Project, 'National Literacy Accelerated Programmes'; 'No Child Left Behind' (NCLB); 'No Child Can Wait'; 'Whole School Development'; 'and 'School-Based Management' (SBM) programmes are among the many initiatives that the Governments of Ghana have introduced to address the problems facing basic education delivery (GES, 2012).

Above protocols sought to improve the education systems and to ensure that all school-going children have access to quality basic education (GES, 2012). UNICEF, (2000) recognized five dimensions of quality: the learners; the environment; content; processes; and outcomes. These principles according to UNICEF are founded on the rights of the child for survival, protection, development and participation. Learning to know:- acknowledging that quality learning provides opportunity for learners to construct knowledge.

3.0 Methodology

3.1 Population

The study focused on deprived and well endowed districts in Ghana. There were fifty-three districts within the deprived zone and fifty-three districts within the well-endowed zone. In both the deprived and the well endowed zones, ten districts were randomly selected to constitute the treatment and control groups for the project. Funding support was provided to the treatment group (selected deprived districts). Thus the ten randomly selected well-endowed districts served as the control group.

3.2 Data source

Data for this study originated from the Ministry of Education's annual school census for the period 2007 to 2010. The purpose for this census is to collect and collate records for all public and private schools in Ghana. The census covers all basic schools (both public and private) in the country. Basic schools comprised kindergarten, primary and junior high schools. The data collected at the school level is further analyzed at the district, regional and national levels. The source of the data is the National Education Database referred to as the Education Management Information System (EMIS), the sole institute for the publication of educational statistics in Ghana. The EMIS provided information on all primary schools in Ghana during the period covered by the study. The database is the only statutory system for the release of annual school data for all schools across the breadth and depth of the country. The process of data collection from the annual census takes place at the district level, vetted and submitted to the regional office for vetting and cleaning. Additional data cleaning again takes place at the national level. The selection of the deprived and well endowed districts has all the schools under them covered by the census.

3.3 Sampling Technique

A stratified sampling tool is employed in the categorization of the districts into deprived and well endowed (non-deprived). The categorization has been established by the Ministry of Education using selected key education performance indicators for each district. There were nine selected well endowed and nine deprived districts. There are ten Regions in Ghana including the Greater Accra Region. But Greater Accra Region does not have a deprived district so to ensure fair representation of both deprived and non-deprived districts in the study, one well endowed and one deprived district from each of the remaining nine Regions were selected for study.

The Regions were listed in alphabetical order alongside their respective districts with a list of deprived and well endowed districts matched against the regions in the same order. Selections of the sample districts for the followed the alphabetical order, the first deprived and well endowed districts of each region in the alphabetical order were selected. In situations where a district selected had been split into two districts in the course of the study, that district was omitted and the next in order selected.

There were nine selected well endowed and nine deprived districts. This is due to Greater Accra having no deprived districts. Thus in each of the nine regions, two districts were selected, one deprived and one well endowed (i.e. non-deprived). The selected nine deprived districts served as the treatment group. This group received support from the PPS project and it was expected that they will exhibit a higher rate of annual growth to push them up on the range of performance indicators. The other nine well endowed districts represented the control group that received no support from the PPS project.

3.4 Analysis of Variance

Analysis of variance was used to establish if there existed any difference between the average growth rate of the performance trends in primary gross enrolment rate and completion rate of selected deprived and well endowed districts over the period 2007 to 2010. This statistical analysis allowed the drawing of conclusions about whether the support (treatment) from the PPS project has improved indicators more than that of the endowed or control

group. Thus conclusions could be drawn to some extent on the impact of the PPS intervention on the deprived districts bringing them to some degree of equality with the well endowed districts.

3.5 Hypothesis

In achieving the objective of dissolving disparities in various districts to promote equal opportunities for all Ghanaian children of school going age, the Ministry of Education in partnership with the World Bank embarked on the PPS project. A set of indicators to guide the monitoring and evaluation of attainment of project objectives was developed. There were indicators for access, equity and quality as enshrined in the sector strategic plan of the Ministry of Education (MoE, 2003). For this study, a null hypothesis stipulates that, the sample population mean relating to the primary gross enrolment rate of the deprived districts is the same as that of the well endowed districts over the period 2007 to 2010 when the PPS project was implemented.

A second hypothesis and a third are as follows: that the total student enrolment figures in the deprived districts will not differ from that of the well endowed districts. Thirdly, the projected enrolment figures based on projected population growth in the deprived districts will not be different from the actual enrolment figures in the deprived districts.

4.0 Results and discussion

4.1 Primary Gross Enrolment Rates (GER) of Selected Deprived and Endowed Districts

Table 1a shows the primary GER of selected deprived and endowed districts over a three year period. This is an extract of the raw data obtained from the Education Management Information System

4.2 Comparisons of GER between well endowed and deprived districts

An independent t-test conducted at the 0.05 significance level revealed that, the mean gross enrolment rate for the deprived districts over the three year period was 294.88 while that of the well-endowed district was 289.66 with standard deviations of 42.028 and 32.739 respectively as shown on Table 1b. Table 1c shows the independent samples test results. As displayed on the table, at $t_{16,\ 0.05} = 0.294$, a p-value of 0.772 was recorded. Since $p>0.05$, it implies that, the difference of 5.22 was not significant hence we conclude that, there was no significant difference in the primary GER between deprived and well-endowed districts.

Table 1a. Primary Gross Enrolment Rates for selected Deprived and Endowed Districts

Deprived Districts	**2007 – 08 rates (%)**	**2008 – 09 rates (%)**	**2009 – 10 rates (%)**	**Total (%)**
Adansi South	81.3	105.7	88.9	**275.90**
Atebubu-Amantin	113.9	115.7	121.9	**351.50**
Abura/Asebu/Kwamankese	88.4	86.1	81.6	**256.10**
Birim North	102.4	99.1	92.6	**294.10**
Bole	90.3	93.6	93.6	**277.50**
Bawku unicipal	96.9	89.1	85.6	**271.60**
Jirapa Lambussie	104.3	107.1	101.6	**313.00**
Krachi East	82.7	81.9	80.9	**245.50**
Amenfi East	126	119.4	123.3	**368.70**
Well Endowed Districts				
Adansi North	102.9	79.2	96.6	**278.70**
Asunafo North Municipal	99.5	96.7	98.7	**294.90**
Akuapim North	104.1	102.7	97.5	**304.30**
Accra Metropolitan	78.6	74.1	72.2	**224.90**
Tamale Metropolitan	112.9	114.4	120.9	**348.20**
Kassena Nankana	106.2	101.8	98.2	**306.20**
Lawra	96.4	96.6	94.9	**287.90**
Adaklu-Anyigbe	88	91	92.9	**271.90**
Ahanta West	95.1	95.5	99.3	**289.90**

Table 1b. Group Statistics of the GER of well endowed and deprived districts

	District	N	Mean	Std. Deviation	Mean difference
Primary Gross enrollment of selected districts	Deprived	9	294.88	42.028	5.22
	Well Endowed	9	289.66	32.739	

Table 1c: Independent Samples Test of GER between well endowed and deprived districts

	t-test for Equality of Means		
	T	df	p-value
Primary Gross enrollment of selected districts	0.294	16	0.772

4.3 Growth in Primary Enrolment

Table 2a shows growth in primary enrolment for all the selected districts categorized under well endowed and deprived districts. In the Table 2a, it is found that, enrolment figures varied from district to district. Some districts showed steady increases while others experienced decline in enrolments. Bawku Municipal for instance showed a steady fall in enrolment figures over the three year period. Similarly, Birim North also experienced a decline in enrolment growth. Adansi North, Bole and Atebubu-Amantin experienced slight increases in enrolment over the period**.**

In the case of the well endowed districts, most of the districts sampled experienced steady growth. Tamale Metropolitan showed the highest growth over the period. Other districts in this category including Agona, Lawra, Adaklu-Anyibge and Ahanta West experienced gradual increase in absolute enrolment figures. Adansi North rose up in growth in enrolment for the year, 2008-09 but fell back in the year 2009-10. Similarly, Akuapim North followed the example of Adansi North. Kassena Nankana experienced a fall in enrolment over the period.

Examining growth in primary enrolment in the well endowed and deprived and comparing them showed that, those in the deprived districts recorded mean growth of 65761 while those in the well-endowed district recorded a mean growth of 84716 with a mean difference 18955 as shown on Table 2b. However, even though there was difference in the mean growth between the deprived and well endowed districts, this difference was not significant at the 0.05 significance level. This was confirmed with $p>0.05$ on Table 2c at $t_{16,\ 0.05} = 0.974$.

4.4 Comparison in projected population growth for well endowed and deprived districts

The findings showed that, in relation to projected population growth rates for districts categorized under deprived and well-endowed districts, there was a mean difference of 11187.44 as shown on Table 3b below. However, this mean difference was not significant with $p>0.05$ significance level at a $t_{16,\ 0.05} = 0.693$ as shown on Table 3c. Therefore we conclude that, there was no significant difference in the projected population growth rates between deprived and well-endowed districts.

This brings to the fore the comparison between the actual enrolment figures for deprived and well endowed

Table 2a. Primary Gross Enrolment (PGE) for selected deprived and endowed districts

Deprived Districts	**2007 – 08**	**2008 – 09**	**2009 – 10**	**Total**
Adansi South	20916	20932	24136	**65984**
Atebubu-Amantin	15393	16062	17380	**48835**
Abura/Asebu/Kwamankese	18107	18110	17626	**53843**
Birim North	28053	27871	26755	**82679**
Bole	9819	10456	10734	**31009**
Bawku Municipal	42867	40453	39941	**123261**
Jirapa Lambussie	22982	24248	23619	**70849**
Krachi East	13614	13838	14051	**41503**
Amenfi East	24578	23930	25378	**73886**
Well Endowed Districts				
Adansi North	21471	22636	21246	**65353**
Asunafo North Municipal	23050	23006	24103	**70159**
Akuapim North	21722	22011	21469	**65202**
Accra Metropolitan	37096	38301	38824	**114221**
Tamale Metropolitan	64956	67608	73390	**205954**
Kassena Nankana	33531	32994	32704	**99229**
Lawra	17546	18044	18215	**53805**
Adaklu-Anyigbe	9445	10026	10517	**29988**
Ahanta West	18686	19283	20583	**58552**

Table 2b: Group Statistics of growth in primary enrolment in well endowed and deprived districts

	District	N	Mean	Std. Deviation	Mean Difference
Growth in Primary Enrolment	Deprived	9	65761	27177.89	18955
	Well Endowed	9	84716	51693.57	

Table 2c: Independent Samples Test of growth in primary enrolment in well endowed and deprived districts

	t-test for Equality of Means		
	T	df	p-value
Growth in Primary Enrolment	0.974	16	0.345

Districts and makes the implication that, advocating for more enrolment at both the deprived and well endowed districts are necessary and should be given special attention. The evidence further suggests that, enrolment promotion in the deprived districts should be particularly intensified for since these districts have difficulty in attracting the variables that will make parents want to send their children to schools in these districts.

Table 3a. Projected population growth for 6-11 year olds in selected deprived and endowed Districts

Deprived Districts	**2007 – 08**	**2008 – 09**	**2009 – 10**	**Total**
Adansi South	25732	26427	27141	**79300**
Atebubu-Amantin	13512	13877	14252	**41641**
Abura/Asebu/Kwamankese	20486	21039	21607	**63132**
Birim North	27383	28122	28881	**84386**
Bole	10873	11167	11468	**33508**
Bawku Municipal	44233	45427	46654	**136314**
Jirapa Lambussie	22043	22638	23250	**67931**
Krachi East	16460	16904	17361	**50725**
Amenfi East	19507	20034	20575	**60116**
Well Endowed Districts				
Adansi North	20862	21425	22003	**64290**
Asunafo North Municipal	23157	23782	24425	**71364**
Akuapim North	20873	21437	22015	**64325**
Accra Metropolitan	32909	33797	34709	**101415**
Tamale Metropolitan	57522	59076	60671	**177269**
Kassena Nankana	31565	32418	33293	**97276**
Lawra	18194	18685	19189	**56068**
Adaklu-Anyigbe	10729	11018	11316	**33063**
Ahanta West	19659	20190	20736	**60585**

Table 3b: Group Statistics of projected population growth for 6-11 year olds in selected deprived and endowed districts

	District	N	Mean	Std. Deviation	Mean difference
Projected Population Growth Rates	Deprived	9	68673	30547.77	11187.44
	Well Endowed	9	80628	41735.21	

Table 3c: Independent Samples Test of projected population growth for 6-11 year olds in selected deprived and endowed districts

	t-test for Equality of Means		
	T	df	p-value
Projected Population Growth Rates	0.693	16	0.498

4.5 Projected and Actual Growth in enrolment in deprived districts

Table 4a shows the means of the growth in deprived districts. As shown on the table, the projected mean growth was 68673 while the actual growth recorded was 65761 with standard deviations of 30547.77 and 27177.89 respectively. Further findings revealed that, there was no significant difference in the projected growth as against the actual growth. This was confirmed with an ANOVA test conducted at the 0.05 significance level as shown Table 4b and Table 4c. From the table, it is observed that, at F17, 0.05 = 0.046, a p-value of 0.834 was recorded.

Since p>0.05, it implies that, there was no significant difference in the mean growth of actual and the projected growths. This shows that the PPS has achieved success in giving deprived districts a push in terms of providing them with the school facilities and resources needed to enable them attract more children who are out of school in the respective districts.

Table 4a. Projected population growth for 6-11 year olds and actual enrolment in selected deprived districts

Projected growth	**2007 – 08**	**2008 – 09**	**2009 – 10**	**Total**
Adansi South	25732	26427	27141	**79300**
Atebubu-Amantin	13512	13877	14252	**41641**
Abura/Asebu/Kwamankese	20486	21039	21607	**63132**
Birim North	27383	28122	28881	**84386**
Bole	10873	11167	11468	**33508**
Bawku Municipal	44233	45427	46654	**136314**
Jirapa Lambussie	22043	22638	23250	**67929**
Krachi East	16460	16904	17361	**50725**
Amenfi East	19507	20034	20575	**60116**
Actual enrolment				
Adansi South	20916	20932	24136	**65984**
Atebubu-Amantin	15393	16062	17380	**48835**
Abura/Asebu/Kwamankese	18107	18110	17626	**53843**
Birim North	28053	27871	26755	**82679**
Bole	9819	10456	10734	**31009**
Bawku unicipal	42867	40453	39941	**123261**
Jirapa Lambussie	22982	24248	23619	**70849**
Krachi East	13614	13838	14051	**41503**
Amenfi East	24578	23930	25378	**73886**

Table 4b: Summary of Data

	Mean	N	Std. Deviation
Actual	65761	9	27177.89
Projected	68673	9	30547.77
Total	67217	18	28088.70

Table 4c: ANOVA Table

			Sum of Squares	df	Mean Square	F	p-value
Actual * Projected	Between Groups	(Combined)	3.815E7	1	3.815E7	.046	.834
	Within Groups		1.337E10	16	8.359E8		
	Total		1.341E10	17			

5.0 Conclusions

The pilot programmatic scheme provided support to the deprived districts to improve progressively the percentage of trained teachers and promote the equitable distribution of education opportunities within the deprived districts. In regards to school infrastructure, the deprived districts had the greatest number of classrooms in need of repair and the poor state of school buildings had negative impacts on enrolment growth among deprived schools. The PPS provided additional funding to deprived districts specifically to enable them improve on the number of pupils in school thereby bridging the gap between deprived and well-endowed districts.

Other factors influencing the rate of increase in pupil enrolment and hence reducing the number of kids remaining out of school in the deprived districts that were deployed by the PPS included greater access to

furniture, increased percentage of trained teachers, lower pupil teacher ratio, more female enrolment in the schools. All these were important in enhancing the enrolment rate of children in schools. This study has compared the primary gross enrolment rates of selected deprived and well endowed districts after the PPS intervention in Ghana. The average primary gross enrolment rate of deprived districts.

As hypothesized, the mean primary gross enrolment rate of the deprived districts will not be different from that of the well endowed districts over the period 2007 to 2010 when the PPS project was implemented, and that the total student enrolment figures in the deprived districts will not differ from that of the well endowed districts. Thirdly, the projected enrolment figures based on projected population growth in the deprived districts will not be different from the actual enrolment figures in the deprived districts.

The study has confirmed that there was no significant difference in the primary GER between deprived and well-endowed districts. It has also been confirmed that, the total student enrolment figures in the deprived districts did not differ from that of the well endowed districts and further that the projected enrolment figures based on projected population growth in the deprived districts did not differ from the actual enrolment figures in the deprived districts. These findings confirms that the objective of ensuring that deprived districts are supported through the PPS project to enable them perform better or at worst exhibit similar performance trends with the well endowed districts in terms of providing deprived schools facilities and resources to enable them attract more out-of-school children, has been achieved.

It is the expectation the enrolment of children in schools in the districts will rise over the period in order to make useful the facilities that were provided under the PPS project. It is hoped that these would all translate into increased enrolment figures to enable Ghana meet the international obligations in the MDGs that had been enshrined in the Education Strategic Plan and the GPRS II as well as the Ghana Growth and Development Agenda for 2010- 2015

In view of the above findings, it should be re-emphasized that the construction of accessible roads to the school communities and the provision of water and electricity in respective communities of the deprived regions of the country are necessary to improve education delivery. Also attempts to reduce the rural – urban migration by taking the necessary steps mentioned above would have implications on the growth trends in the enrolment of schools in the deprived districts.

Furthermore, government efforts at providing pro-poor interventions should move from the blanket application to specific ones. The capitation grant for example awards a blanket amount for pupils towards school operations in both well endowed (where parents have the means and are willing to support their wards) and the deprived (where parents' do not have the means are left with no option to support their wards through school but to withdraw them). Interventions should apply differentially according to wealth status and needs of people concerned.

Additionally, the development of deprived districts to enable them catch up with the well endowed ones should be treated on holistic approach and as a top priority. There are factors outside of education which makes those who can afford better education for their wards to migrate to the well endowed areas. These well endowed areas are able to attract the best trained teachers. Since well endowed areas are better able to attract more of best trained teachers than the deprived districts, it follows that, the availability of social amenities to attract trained teachers in the endowed areas affects the tendencies with which parents are willing to have their wards educated in the schools of deprived districts.

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