

## Assessment of Family Income on Academic Performance of Tertiary Students: The Case of Ho Polytechnic, Ghana

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**Abstract** *This paper examines the relationship between family income and the academic performance of tertiary students in Ghana, the case of Ho Polytechnic. The study focuses on the sources of family income, expenditure patterns of students on campus and students' performance. Case study under qualitative research design was used. Simple random sampling technique was used to select 480 students across the faculties in the Polytechnic. Questionnaires were used to collect primary data to support the secondary data. The study found a mixed significant relationship between higher family income and better students' academic performance based on the students' cumulative grade point average (CGPA). Thus, though family financial status affects students' performance to some extent, but it is not an essential predictor of higher academic performance. A good number of student respondents indicate that low family income does not necessarily lower their academic achievement. The study concludes that financial status of families/parents and the students' academic performance must be a shared responsibility for the purpose of mutual benefits in the future. Financial interventions from the government and other external parties are paramount for the future socio-economic growth of the nation, since these students are great assets and future leaders of the country. This study adds to the existing body of literature and also serves as a basis for future research.*

**Key words** Academic performance, family income, Ghana, Ho Polytechnic, students

DOI: 10.6007/IJARAFMS/v6-i3/2221

URL: <http://dx.doi.org/10.6007/IJARAFMS/v6-i3/2221>

### 1. Introduction

Education is a global complex access book; those who do not read the full contents will only admire the cover page and become victims of ignorance and poverty at long run. Education is a direct visa to the future abroad; for tomorrow belongs to those leaders who prepare for it today. Anyone who stops learning is proverbially old for retirement. The child you send to school at your youthful age will save you at your old age. However, self-education promotes natural leadership.

#### 1.1. Background of the study

According to some researchers, "the educational achievement gap has deep root; it is evident very early in child's lives; even before they enter schools. Socio-economic differences – such as health and nutrition status, home environments that provide access to academically related experiences, mobility rates, and financial assets can certainly influence academic achievements" (Laosa, 2005, cited in Ogunshola and Adewale, 2012).

"The responsibility of training a child always lies in the hand of the parents" (Ogunshola and Adewale, 2012). Parental educational background, profession and occupation affect their financial status. Family income is one major factor that affects their children's educational level, competitive ability and performance (Smith *et al.*, 2002; Hill *et al.*, 2004; Rothestein, 2004). When you give out what you don't

have, then you are equated to a proverbial thief. When a woman's nutritional status improves, so too does the nutrition of her young children (Lisa *et al.*, 2003 as in Ogunshola and Adewale, 2012). This could be an automatic adjustment formula for responsible parents and guardians only; there could be possible objection to this. A sound mind lives in a sound body is a relevant adage to this phenomenon. Some researchers uphold that parents' socio-economic status (or social classes) affects children's health, nutritional balance, rate of retentive memory and deviation and academic performance (Eze, 2002; Guerin *et al.*, 2001; Adewale, 2002; Omoegun, 2007; Oni, 2007; Ogunshola and Adewale, 2012).

No education is ever cheap; yet, poverty must not be a finite barrier to education, and academic performance must not suffer from *no-money-syndrome* implications. It is interesting to know that schooling aims at acquiring certificates, but education aims at gaining industrial skills (Adzido *et al.*, 2015). Students must learn more to earn more financially and academically (Canfield and Switzer, 2007). They must study with deep meditation to show yourself approved with better results (1Timothy 4:13-16; 2Timothy 2:15a; Joshua 1:8), because Daniel in the Bible understood perfectly by books (Daniel 9:2). Added knowledge leads to added value; added value enhances opportunities for success. Everything is available but it takes knowledge and wisdom, via education and research to partake of it. Never forget this, that: if you think education is expensive, try the cost of ignorance! It is through education and research that you learn and be learned; lead and be led.

Education is transformative asset and generally fertilizes the mind to bear good fruits; yet, specialisation at higher level trims the mind for specific skills to perform better. Every seed has the potential to germinate, grow and bear fruits when favourable environment is available. Every branch of a tree feeds on the mother tree's nutritional level. Similarly, at the flowering and fruiting stage of every tree, there is a great need of care, support and favourable environment so as to bear good fruits. At tertiary level, the family and friends will be expecting some financial fruits/incomes thereafter. At this critical level of education, can the family income sufficiently support the child (student) in order to come out with good results?

The above preamble or scenario significantly affects the level of financing higher education globally, especially in Ghana. Higher education enrolment continues to increase dramatically. According to CIA factbook (2016), 2010 estimate of the literacy rate (71.5%) of Ghanaians from 15 years and above can read and write. Ghana government spends heavily (8.1% of GDP, 2011) on education, being 13<sup>th</sup> country comparison to the world (CIA factbook, 2016). However, higher cost of remuneration to high-value staff, development and infrastructure projects, and projecting the competitive image of educational institutions have influenced high cost of education which ultimately burdens families educational budgets. More efforts (financial, policy, etc.) are made by individuals, families, organisations and the government to positively intervene the situation but to no avail. Some students have to stress and toil to fend for themselves on campus. Could this burden negatively affect the academic performance of such students? Some students also get full family and/or external financial supports and live relatively well on campus. The question is: does this intervention improve the academic performance of such students? These are interesting questions that will give focus and direction to this study.

A few researches have been conducted on family income and the performance of students. However, no known literature has been found on Ghanaian economy. This study intends to assess the effect of family income on academic performance of tertiary students: the case of Ho Polytechnic in Ghana. The purpose is to analyse the cost and benefit of investing in higher education. Students' performance will be measured by their cumulative grade point average (CGPA) as against their sources of finance.

### **1.2. Purpose and significance of the study**

The main purpose of the study is to assess the effect of family financial status on the academic performance of tertiary students. The findings of the study would expose the role of financing educational attainment and performance of students. It will guide financing and other educational policies as well as investments/inventions by parents, guardians, educational planners and the government for more improvement. The focus of bridging the gap between family income and academic performance would be achieved as soon as possible if the recommendations of this study are effectively implemented.

## 2. Literature Review

### 2.1. Family Income

Money measurement concept stipulates that every transaction is measured in the unit of money denomination. Money measures the value through price. The value of money (the purchasing power) is the quantity of goods and services it can afford per time. Money is the main resource of family income and determines the volume of expenditure per time. As part of home financial management, efficient and effective management of money resources goes a long way to achieve the diverse family goals. Family periodic budget is a key to prudent home financial management.

According to Businessdictionary.com (2016), family income is the “total compensation received by all family members age 15 or older living in the same household. Compensation may include wages, social security, child support, pensions, capital gains, and dividends”.

According to Shuani (2016), Family income is classified into three types: Money Income, Real Income and Psychic Income. Details of Shuani’s 2016 classification of family income are stated below.

Money Income is the purchasing power in rupees during a given period of time. Money income is one of the important material resources of the family. It is said, “Money is a matter of function four, a medium, a measure, a standard and store”. Some people say that “We cannot eat money, but we cannot eat without money.” According to D.H. Robertson, “Money is anything which is widely accepted in payment for goods or in discharge of other kinds of business obligations.” Money income of the family includes all the earnings which come to the family in terms of rupees, coins or notes in a specific period of time, daily, weekly, or monthly. Money income may include salaries, wages, rent, interest, profits, sick benefits, pensions, gifts, dividends, securities, royalties etc. Money income may be converted into goods and services, whenever required by the family. Some parts of money income may be diverted into savings for future use. Money management includes the management of family income. As money is a limited resource it must be managed properly in order to achieve family goals. Money income is affected by factors such as the abilities and skill of the wage earner, personal attitude towards the work, and good relationship with management and co-workers.

The real income is the flow of goods, services and community facilities available for a specific period of time. According to Donaldson, “The real value of income received is the goods and services and security and well-being that income (money) will purchase.” The concept of real income is very much important for family living. Real time consists of both producers and consumer’s goods.

The real income of the family consists of:

- a. Inherited landed property, which yields crops for the family.
- b. Food furnished by a kitchen garden.
- c. Dairy farming and poultry farming.
- d. Durable goods and commodities owned by the family.
- e. Kneading, embroidery, tailoring, pickling, baking and activities carried out in home.
- f. All types of knowledge and services (Household activities) provided by the members of the family.
- g. Community facilities like parks, markets, hospitals, roads, schools, colleges, libraries, dispensaries, fire and police protection, community entertainments, social centres etc. Proper utilization of all these can increase the real income of the family.

Another concept of real income is that it is the goods and services that money income will provide. The potential quantity of Real income available for any family is impressive. The way families make use of all forms of real income is important. It depends upon the managerial ability of the home maker.

The real income may be of two types:

(i) Direct Income: It means a family receives different facilities without paying for them. For example, free well-furnished house, telephone at residence, vehicle for private use, hospital facilities etc.

(ii) Indirect Income: It refers to the commodities and services received by the family members on payment. For example, vegetables from the kitchen garden, milk from the dairy farm etc. These things can be used by the family or may be sold in the market.

The psychic income is the flow of satisfaction derived by the family from the use of money income and real income. This income is intangible and qualitative or subjective. This income is also called enjoyment income, experienced over a given period of time by the proper utilization of money income and

real income. We must maximize psychic income, because our ultimate goal is to derive maximum satisfaction and peace from life.

However, “poverty indicates the extent to which an individual does without resources...resources can include financial, emotional, mental, spiritual, and physical resources as well as support systems, relationships, role models, and knowledge of hidden rules” (Lacour and Tissington, 2011).

“Africa accounts for a large share of the world’s people living in absolute poverty. Its share of the world’s poor rose from just below 20% to close to 25%. Nearly 50% of the population in Sub-Saharan Africa lives on less than US\$ 1 a day today: the world’s highest rate of extreme poverty in the world. In all African countries, the richest capture the largest share of income. When measured by the share of income that goes to the poorest, inequalities are striking, and accompanied by geographic disparities between urban and rural areas where the poor are concentrated. The poor (<\$2/day) account for 60.8% of Africa's population and hold 36.5% of total income in Africa. The rich (>\$20/day) account for 4.8% of the population and 18.8% of total income” (AfDBG, 2012).

In fact, family income is largely considered a prime indicator of a country's financial success. It is also a measure of a family's disposable income and the general standard of living per time.

## **2.2. Family Income vs. Academic Performance**

This section of the study critically analyse the related literature on the topic: Assessment of Family Income on Academic Performance of Tertiary Students: *The Case of Ho Polytechnic, Ghana*.

Hijazi and others’ 2006 study explored factors affecting college students’ performance, focusing on private colleges in Pakistan. Questionnaires were used to collect data from 300 students randomly selected. Simple linear regression analysis was used to test the hypothesis. Their findings show mixed results. They believed that the relationship between students’ performance and student family income is positive because money can buy you all the comforts that you need to concentrate on their studies but interestingly the result also shows that students belonging to more prosperous families do not give proper attention to studies, thus affluence cannot make a student necessarily serious about his/her studies. They recommended more research to explain this phenomenon (Hijazi and Raza Naqvi, 2006).

In a related study, Memon and others’ 2010 study examined the impact of parental socio-economic status on students’ educational achievements at Secondary Schools of District Malir, Karachi. Questionnaires were used to collect data from 240 students using purposive sampling technique. Statistical tables were used for data analysis. A significant relationship was found between family income and academic performance of students in matriculation examination. They also found a significant relationship between parent’s occupational status and academic performance of the students at matriculation examination. They concluded that students whose family income was higher performed well in matriculation examination as compared to those students who belonged to low income families (Memon, *et al.*, 2010).

Similarly, Raychaudhuri *et al.* (2010) examined factors affecting students’ academic performance: a case study in Agartala Municipal Council area. Family income was one of the basic objectives of their study. Primary data was collected through random sample survey from students in the government and government aided schools and their households. Using regression analysis, they found that factors like students’ attendance, mother’s education and presence of trained teacher in the school have a positive impact of students’ academic performance. They also found that academic performance of students’ depend on a number of socio-economic factors. They concluded that students’ economic status affects their performance and the risk of becoming a dropout.

Again, Yousefi *et al.* (2010) examined the effect of family income on test-anxiety and academic achievement. Their paper focused on 400 Iranian high school students. Statistical analysis of ANOVA was employed. The findings showed that family income significantly affected academic achievement of students. It was recommended that in enhancing academic achievement in school setting, support strategies such as improving family income among families by government must be focused on. To decrease the rate of influence of family income on depression and academic achievement among students, the government should organize practical programs to help families and also students in the areas of food, money and the other supports (Yousefi *et al.*, 2010).

However, Lacour and Tissington (2011) examined the effects of poverty on academic achievement in the USA. They concluded their study that poverty directly affects academic achievement due to the lack of resources available for students' success; thus low academic achievement is closely correlated with lack of resources, with emphasis on financial resources. They recommended that instructional techniques and strategies implemented at the classroom, school, district, and government levels can help close the achievement gap by providing students with necessary assistance in order to achieve high performance in academics.

Interestingly, Nyakunga's 2011 study explored the effects of cost sharing on students' academic performance in Mzumbe University, Morogoro Main Campus, Tanzania. In his analytical framework of six concepts were academic performance and financial factors. This study used qualitative case study. Semi-structured interview was used to collect data from six second year students and two teachers who were selected using purposive sampling technique. The results showed that the effects of cost sharing on academic performance seem to be complex and they may depend on the particular circumstance an individual is facing. The study concluded that cost sharing is likely to motivate some students to study hard and improve performance by reflecting on the amount of funds they invest in education. However, it can also lead to poor performance due to lack of funds to cover educational expenses and other personal needs. The results implied that students from low-income families were more likely to perform lower because of financial hardship and poor schools they attended. Thus, there is the need for the government to ensure that all students receive better education. This result also indicated that some of the factors affecting academic performance in higher education also resulted from poor education background (Nyakunga, 2011).

In a current development, Ali and others' 2013 study investigated factors affecting academic performance of graduate students of Islamia University of Bahawalpur Rahim Yar Khan Campus. Among variables examined against students' academic performance was father/guardian social economic status. Questionnaires were used to collect data from 100 students randomly selected. Linear regression model, correlation analysis, and descriptive analysis were used for data analysis. Findings revealed that father/guardian higher social economic (income) status significantly contribute to higher academic performance of graduate students. They proposed a linear model to improve the academic performance of graduate students at University level (Ali *et al.*, 2013).

Nevertheless, Achievement gaps in USA among financially advantaged and disadvantaged students are significant (Rowan *et al.*, 2004). According to Lacour and Tissington (2011), multiple studies in the USA revealed interesting empirical results on third through fifth grade students from 71 high-poverty schools. They found that students who lived in poverty scored significantly worse than other students; schools with the highest percentages of poor students scored significantly worse initially, but closed the gap slightly as time progressed (U.S. Department of Education, 2001). A similar study conducted by Sum and Fogg (1991) found that poor students are ranked lower in performance than students from upper-income family. Similarly, low-income students' scores lower marks than upper-income students' scores (Rowan *et al.*, 2004) and students from low-income families consistently score marks below average (Bergeson, 2006). Again, children from persistently poor families score lower than children from relatively rich homes (Smith *et al.*, 1997).

Similarly, a good number of scholars conducted some studies on students' performance in the context of economic circumstances and the risk of becoming a dropout that proved to be positive (Goldman *et al.*, 1998; Pallas *et al.*, 1989; Levin, 1986 as in Raychaudhuri *et al.*, 2010).

Finally, Hill *et al.* (2004) asserted that socio-economic position of parents directly affects students' academic performance, improves low background students to firmly compete with those from high income families. Smith *et al.* (2002 as in Ogunshola and Adewale, 2012) argued that parental socio-economic status is a significant predictor of intellectual performance of children right from 8 years of age. Parental socio-economic status affects health and vitality status of children, which is a direct reflection on their academic performance. Adewale (2002 as in Ogunshola and Adewale, 2012) upheld that rural communities where nutritional status is relatively low and health problems are prevalent due to low income brackets of parents, children's academic performance is comparatively lower. The views of Eze (1996) complement what earlier researchers found.

By contrast, a few studies have found little correlation between income and academic achievement (Lacour and Tissington, 2011). The summary of a study conducted by Mayer (1997) shows that changes in financial status have a very small and statistically insignificant effect on students' educational attainment. Similarly, Oni (2007) and Omoegun (2007) found that there is a significant dissimilarity between conduct of students from high and low socio-economic statuses and this ultimately influence their learning process.

Family income becomes educational controlling factor globally. Kadushin (1967) argued that low income limits both educational attainment and academic performance of students. Good financial support for education is an essential stimulus in motivating students to perform better. Low family income is a predictor of the level of academic performance, alienation and dropout of students (Beegle and Rice, 1965). In brief, the critical literature review shows that the relationship between family income and students' academic performance is a global phenomenon. Both developed countries, e.g. USA, emerging economies, e.g. Ghana and other developing countries face similar financial and academic performance challenges. Significant number of studies found that students from low-income families perform poorly than those from relatively richer families; however, this decision is not fully conclusive in research.

### **3. Methodology of research**

#### **3.1. Study Area Description**

Ho Polytechnic is the Premier Tertiary Institution in the Volta Region. The Polytechnic started in 1968 as a Technical Institute with the primary objective of providing pre-technical education. By 1972, the Institute upgraded its courses. In 1986, the institution was transformed into a Polytechnic status but got full backing of the Law (Polytechnic PNDC Law 321) in 1993 to become a full-fledged tertiary institution that offers Higher National Diploma (HND) and degree programmes. Ho Polytechnic is the hub of technological and practical education in Ghana. The Polytechnic Law (PNDC Law 321) was replaced in September 2007 by the Polytechnics Act (Act 745). The vision of the Polytechnic is "to become a reputable technological institution contributing actively to national development by providing career-focused education and skills training to the highest level possible and exploiting opportunities for conduction practical research in close collaboration with business and industry".

The choice of Ho Polytechnic was motivated by a large number of multi-cultural and socio-economic statuses of students. They include local, national and international students. Data collection will be economically and effectively easier since the researchers are lecturers in the Polytechnic.

#### **3.2. Population, Sampling Techniques and Sample Size**

Ho Polytechnic has over 7000 students. Population of the study include all 2<sup>nd</sup> and 3<sup>rd</sup> year students of 2015/16 academic year across the faculties. This will help access the CGPAs of 2<sup>nd</sup> and 3<sup>rd</sup> year Higher National Diploma (HND) students for the study. First year students were excluded because their CGPAs are yet to be known. Sample Size of 480 students, 40 each from the 12 departments respectively, was selected using stratified-quota-simple random techniques. Data collected from the field are analysed using SPSS.

#### **3.3. Research Design**

Research design is the outline for conducting the study that maximises control over factors that could obstruct the validity of the findings. Designing a study helps the researchers to plan and implement the study in a way that will help the researchers to obtain intended results, thus increasing the chances of obtaining information that could be associated with the real situation (Burns and Grove, 2001).

The researchers used descriptive research design of survey type. Descriptive studies, under qualitative research, are used when the characteristics of a population are either unknown or partially known. In this study home and personal characteristics of family and students are considered.

The Case of Ho Polytechnic was used so as to have an in-depth study of students' performance and their families' financial status. Students' semestrial examination results were used to measure academic performance.

### 3.4. Data collection procedure and instrument

The literature reviewed indicated that family income affects students' academic performance to some extent. The plan of study involved the use of questionnaire to collect data in order answer the research questions generated from the literature. A self-designed questionnaire called Academic Performance Questionnaire (APQ) was used for the study. The structured questionnaire was formulated to capture the financial status of sponsors/parents and the academic performance of students. The questions captured the demographic, family financial status and students' results. Data collection took place in April, 2016 with 100% response rate. This is so because the researchers are lecturers in the case study institution.

### 3.5. Method of Data Analysis

Statistical bar charts were used to analyse the data collected. Frequency distribution tables were also used for data analysis because they enabled easy summary of the large data collected; and relatively easy to interpret and compare. Tables were useful in summarising the characteristics of categorical, nominal and ordinal data collected (Easton and McColl, 2011; Saunders *et al.*, 2009; Creswell, 2003).

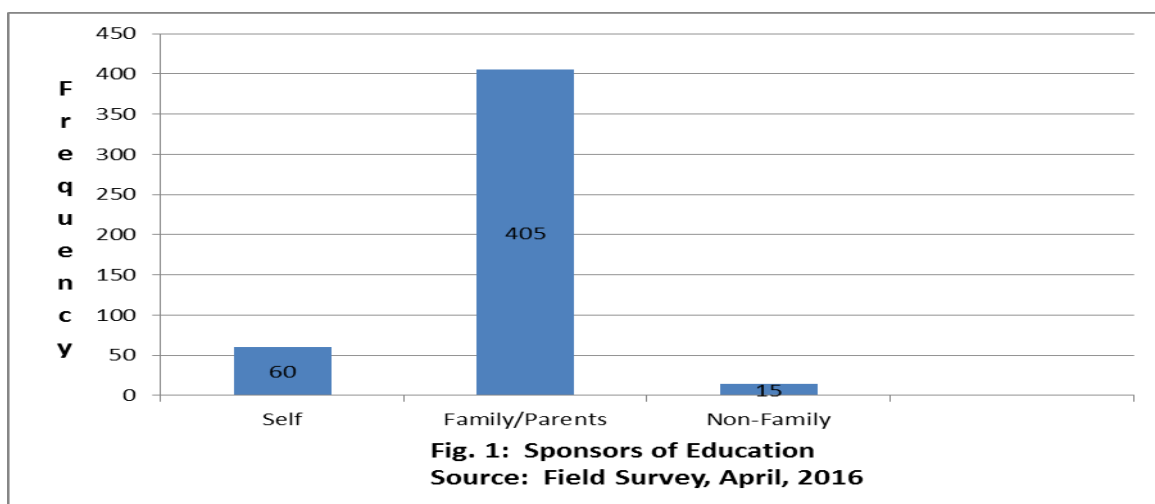
## 4. Results and Discussions

### 4.1. Analysis of Family Income vs. Students' Academic Performance

Second and third year HND student respondents were selected across the 12 departments of Ho Polytechnic to participate in the survey. The new departments recently established were excluded from the study. Though it was stressful, time consuming and cash demanding, there was 100% response rate for the study.

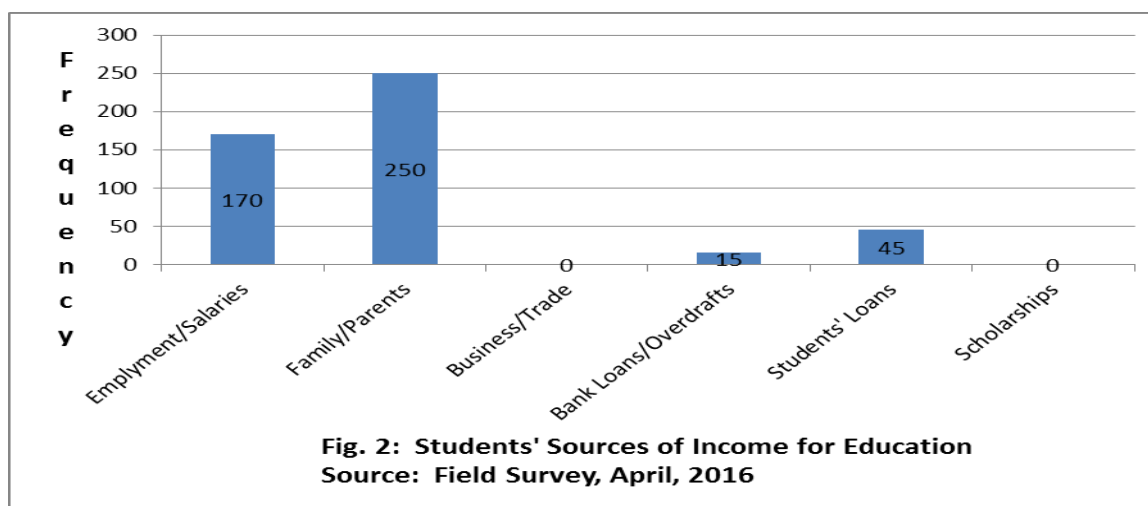
#### Question 1: Who sponsors the cost of your education?

Figure 1 below shows that a significant number (405, 84%) of students are sponsored by their parents/family, 60 (13%) of respondents cater for themselves on campus, while 15 (3%) depend on non-family members for educational supports. This distribution implies that family or parental provision of educational support is essential and can have a significant influence on the performance of students because most students depend on their parents for financial and non-financial supports. This finding is a key factor to the objectives of the study and a predictor of the performance of students.



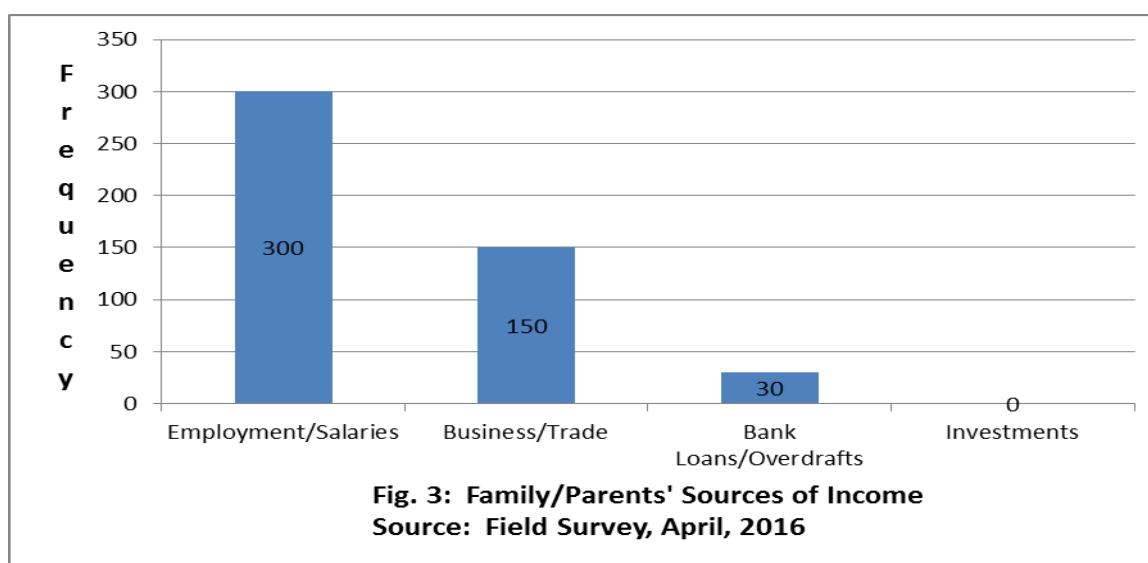
#### Question 2: What are the sources of income for your education?

As shown on figure 2 below, most students depend on their parents (250, 52%) for academic financial support. That working class of students earn salaries from employment (170, 35%) to support their educational expenses. Few students depend on Students' Loan Trust Fund (45, 10%), while others (15, 3%) get some assistance from banks. This is consistent with findings in question one, where most students are sponsored by their parents.



*Question 3: What are the sources of income for your family/parents?*

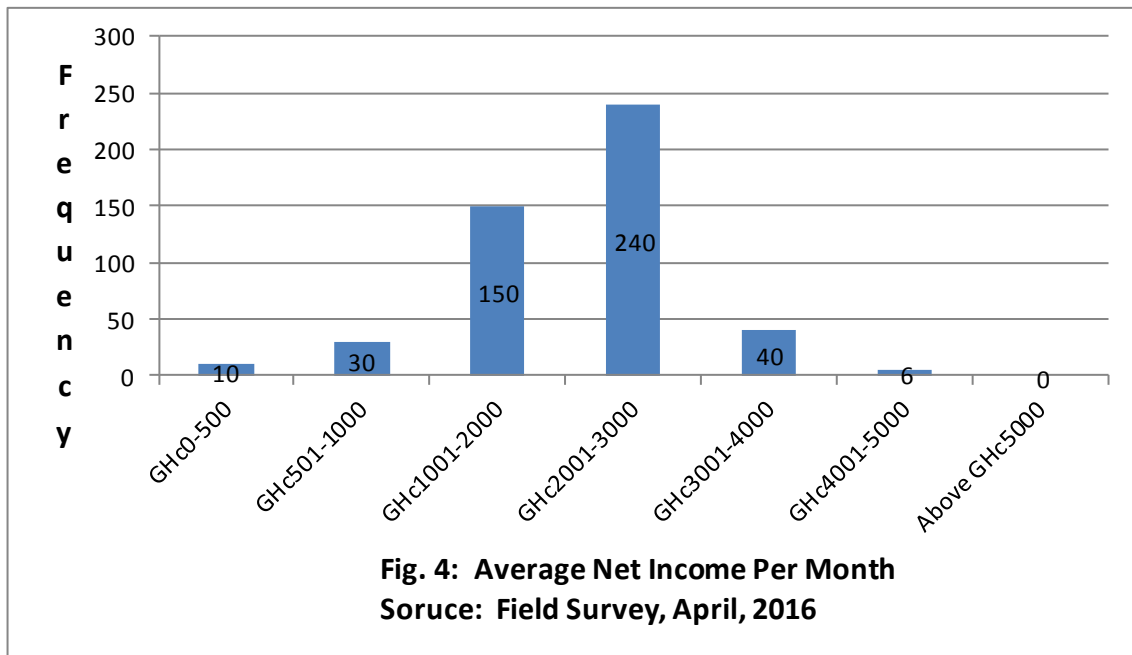
Figure 3 below shows that parents earn more income from employment (300, 63%), some from business and trade (150, 31%), while others depend financial assistance from banks (30, 6%). This is an interesting distribution and a prudent financial management strategy where hardworking parents supplement their salaries with income from trade and other businesses. This implies that parents in this bracket can effectively cater for their wards' education.



*Question 4: What is your family average net income per month (All in GH¢)?*

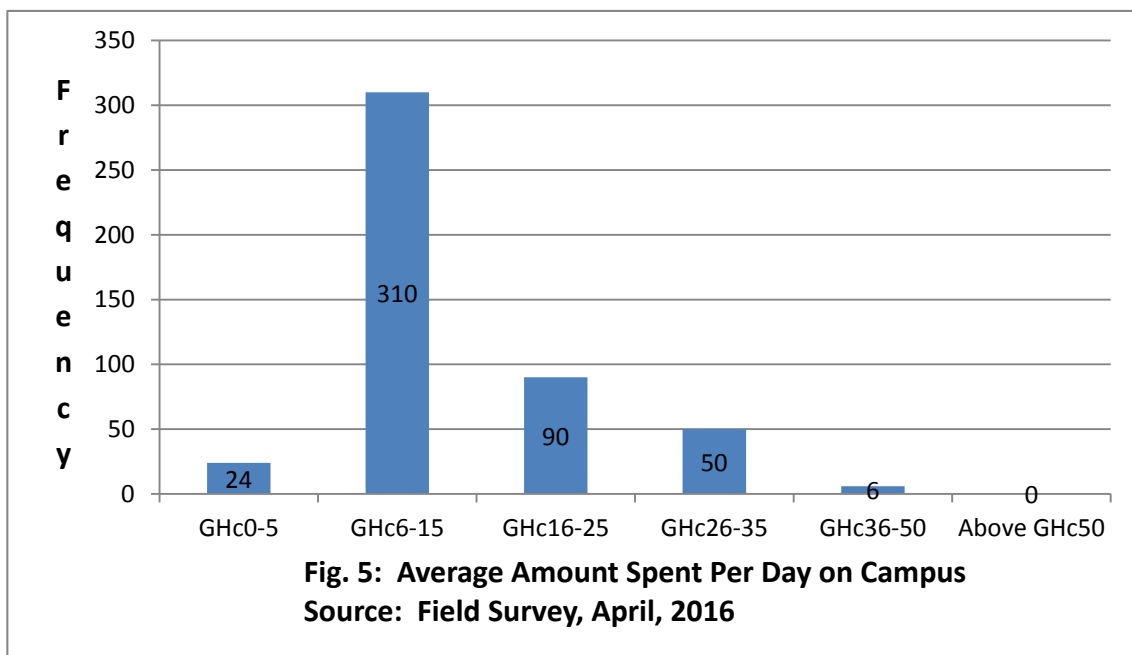
Figure 4 below shows that about 92% of respondents earn net average income of above GH¢1,000.00 a month (about 250 US Dollars). Relating to the Ghanaian cost of education at Polytechnic level, where students pay over GH¢ 1,000.00 per semester (see question 6 below), the family net income distribution is relatively at a lower side and may not cater for the total educational needs of tertiary students. Since cost of living may differ from campus to campus, how would the situation be at other campuses where cost of living could be relatively higher than that of Ho Polytechnic campus? Would this family income pattern influence academic performance of Polytechnic students? Would higher family income, lower the financial needs of students? Subsequent discussions could reveal the answer to this question.





*Question 5: On average, how much do you spend per day on campus (All in GHc)?*

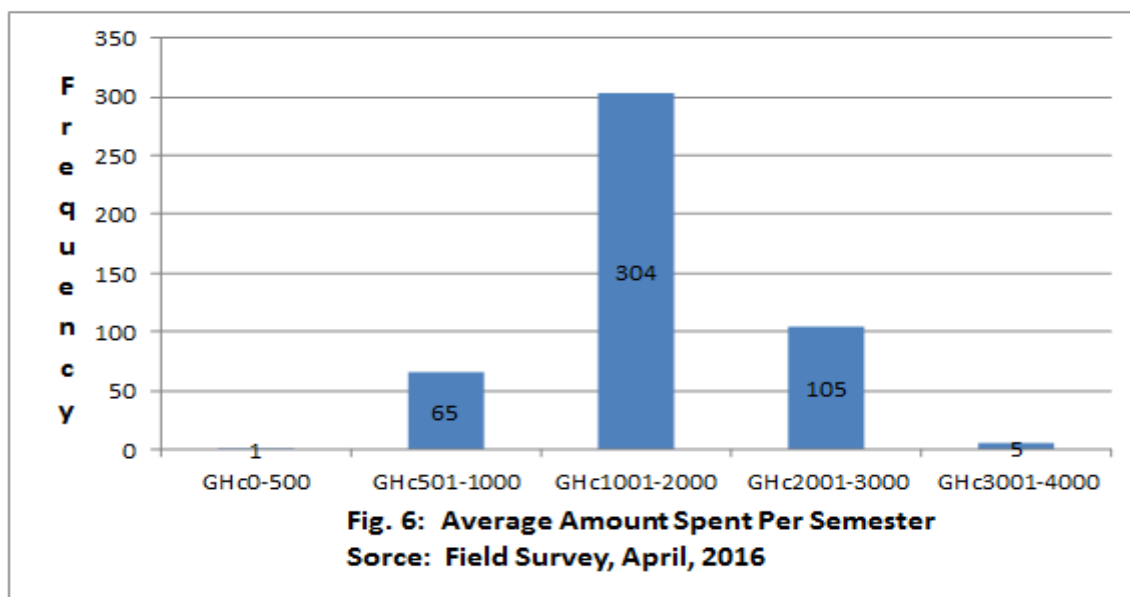
Figure 5 below shows patterns of daily students' expenditure on campus of Ho Polytechnic. Based on the family income status in figure 4 above, majority (310, 65%) live on GHc6-15 (about 2-4 US Dollars). This standard of living is purely consistent with the literature; that "Africa accounts for a large share of the world's people living in absolute poverty. Nearly 50% of the population in Sub-Saharan Africa lives on less than US\$ 1 a day today. The poor (<\$2/day) account for 60.8% of Africa's population and hold 36.5% of total income in Africa. The rich (>\$20/day) account for 4.8% of the population and 18.8% of total income" (AfDBG, 2012).



*Question 6: On average, how much do you spend per semester on campus (All in GHc)?*

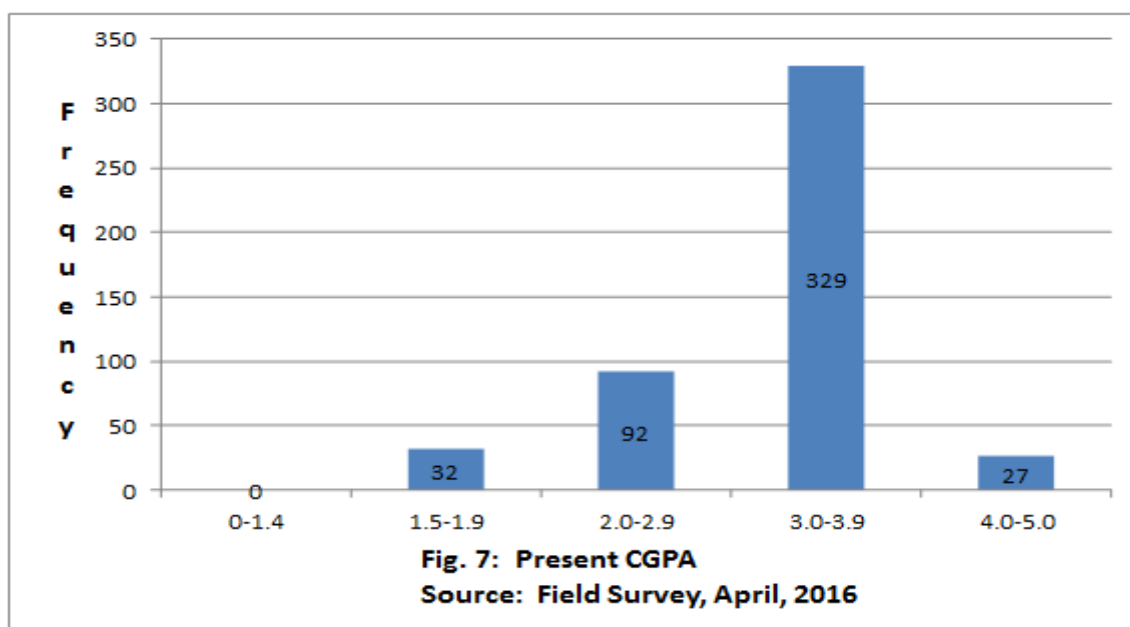
Figure 6 below illustrate the expenditure patterns of respondents in a four-month semester. Due to relatively low family income in figure 4, majority (304, 63%) of respondents live on an average amount of

GHc1,001.00 to GHc2,000.00 (about US\$250-500) per semester. This revealed a consistent pattern with figure 5 above.



*Question 7: What is your present cumulative grade point average (CGPA)?*

Literature, in general, revealed that family income is an essential predictor of academic performance of students. Would the situation be different in Polytechnics? Figure 7 below revealed an interesting finding that could provide a good answer to the research question. Students earn HND certificates with a FCGPA of 1.5 and above, no certificate is awarded with a FCGPA below 1.5. This is the sample awards distribution relating to final cumulative point average (FCGPA) based on figure 7 below. 1.5-1.9 = Pass (32, 7%); 2.0-2.9 = 2<sup>nd</sup> Class Lower (92, 19%); 3.0-3.9 = 2<sup>nd</sup> Class Upper (329, 69%); and 4.0-5.0 = 1<sup>st</sup> Class Honours (27, 6%). Most academic institutions, even corporate organisations, prefer 1<sup>st</sup> Class Honours, or at least 2<sup>nd</sup> Class Division for admission into higher degrees and higher appointments respectively. Based on the above illustration, it is enough to conclude that the respondents at Ho Polytechnic, 2015/2016 academic year, have performed very well. About 75% had very good results that can help them access any institution nationally and internationally.



*Question 8: Rate the following information from very low (1) to very high (5).*

Table 1 (i) confirms with about 90% response rate that the students have relatively low family income brackets. About 10% of respondent students however come from high income family backgrounds. This is consistent with earlier discussions on the quantum of average family income and how much students spend on academic and other related activities on campus. The table further shows that students spend so much on school fees, books, food/drinks and accommodation.

*Table 1. Status of Family Income vs. Students' Expenditure Pattern*

		Very Low (1)	Low (2)	Neutral (3)	High (4)	Very High (5)
i.	Status of my family income is...	91	339	-	50	-
	<b>Areas of expenditure focus on campus:</b>					
ii.	School Fees	-	-	-	459	21
iii.	Handouts & Books	5	50	-	425	-
iv.	Food & Drinks	-	31	-	335	14
v.	Accommodation/Utilities	-	-	-	465	15
vi.	Dress & Cosmetics	108	364	8	-	-
vii.	Mobile Phones & Top-ups	105	370	5	-	-
viii.	Internet/Research	264	215	1	-	-
ix.	Travelling & Transport	401	75	4	-	-
x.	Medicals/Health	358	122	-	-	-
xi.	Church offerings	375	105	-	-	-

**Source:** Field Survey, April, 2016

*Question 9: State your level of agreement to the following statements:*

**Keys:** Strongly Agree (**SA = 5**); Agree (**A = 4**); Neutral (**N = 3**); Disagree (**D = 2**); Strongly Disagree (**SD = 1**)

To confirm figure 4 (family income status) and figure 7 (students' performance) discussed earlier, table 2 highlights on additional predictors of academic performance. In summary, in special reference to statement "i", is it good to conclude with confidence that family income positively affects academic performance of Ho Polytechnic students. This is purely consistent with literature reviewed. However, statement "v" defiles the literature assumptions that family income improves academic performance. In fact, this is a prudent decision every student must make, that "Whether money or no money I must always perform better in my GPA". Money must not detect to you to study harder. The researchers believe that higher performance could rather attract more money at the long run.

*Table 2. Family Income vs. Students' Academic Performance*

	STATEMENTS	SA	A	N	D	SD
i.	Family income level affects my academic performance (GPA).	180	290	-	10	-
ii.	When my family income improves, my monthly stipend/allowance also improves.	245	235	-	-	-
iii.	My GPA improves when my family income also improves.	15	260	-	205	-
iv.	My parents are rich but are not ready to fully pay for my educational expenses.	-	-	-	276	204
v.	Whether money or no money I always perform better in my GPA.	40	440	-	-	-
vi.	Family financial aid is easier to access than external aids.	20	450	-	7	3
vii.	I prefer family financial support to external financial support.	65	410	-	5	-

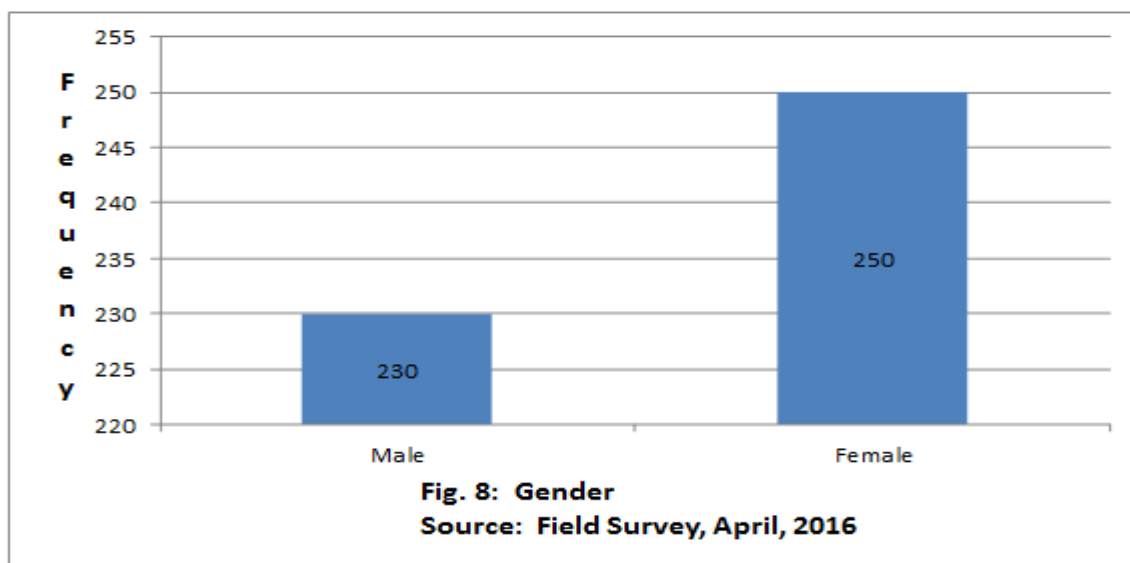
**Source:** Field Survey, April, 2016

#### **4.2. Analysis of Personal Data of Respondents**

**Question 10: PERSONAL DATA**

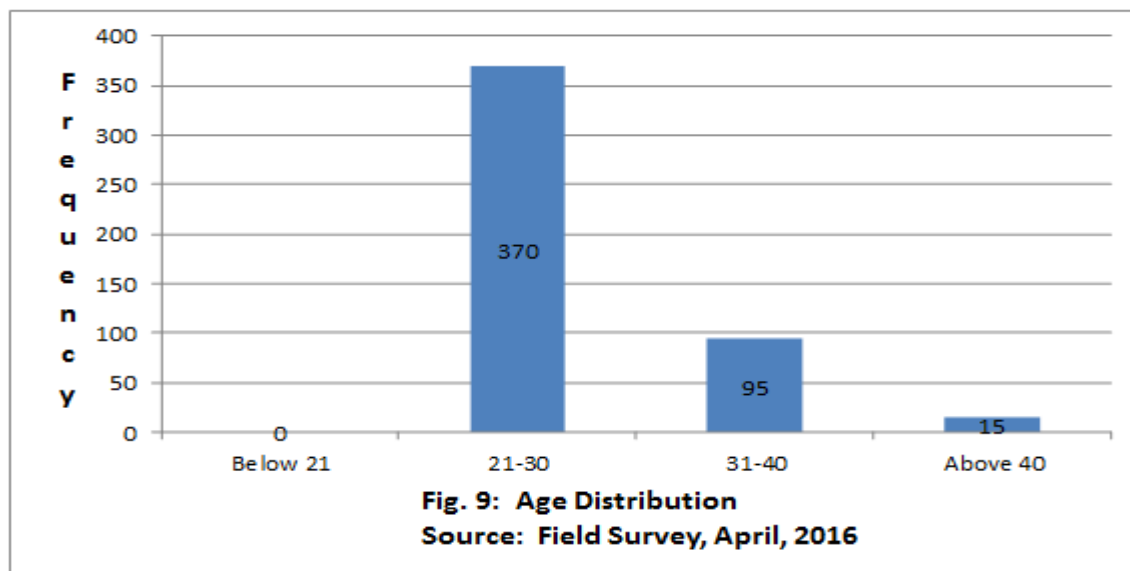
*i. Gender Distribution of Respondents*

Figure 8 below shows that 250 respondents (52%) are females and 230 (48%) are males. This is relatively an even distribution of gender. This implies that the weight of respondents' views and decisions on the topic is uniform and objective. However, it could be very interesting for future researchers to explore the effect of gender on academic performance.



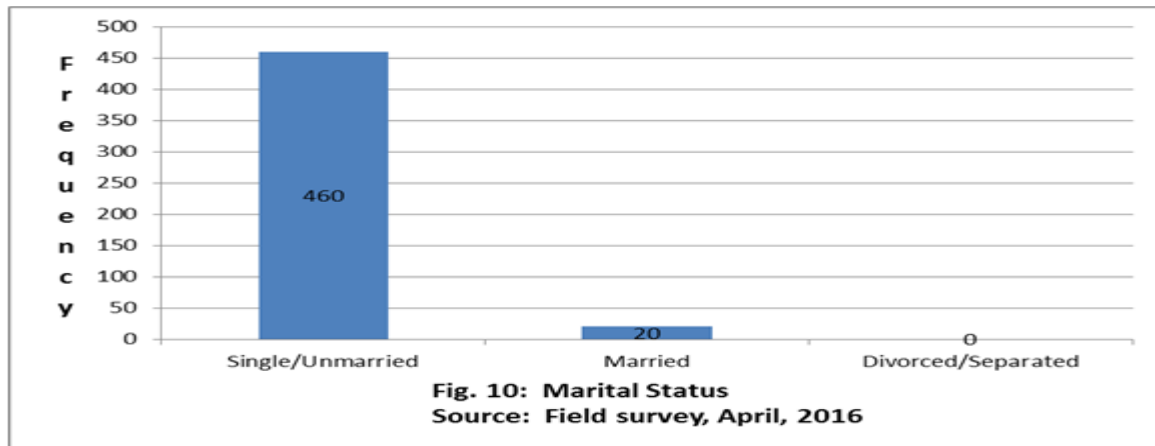
#### ii. Age Distribution of Respondents

Figure 9 shows that about 97% of respondent students are between the ages of 21 and 40. This is an active age bracket. This implies that learning and for better results could be very possible. Under normal circumstances, these respondents should have retentive memories for better academic performance. This is purely consistent with the findings in figure 7 discussed earlier, that is, the active age of respondents has reflected on their good academic performance. However, it could be very interesting for future researchers to examine the effect of age on academic performance.



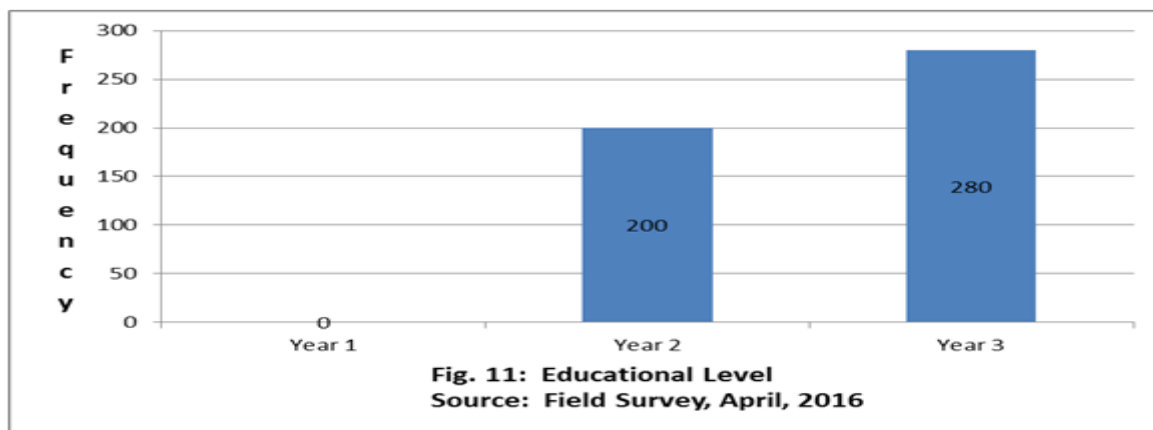
#### iii. Marital Status of Respondents

Figure 10 shows that majority of respondents are single/unmarried (460, 96%) while only 20 (4%) are married. This distribution also shows related and consistent view, implying that those in the single status bracket may not have family or marital pressure on them, which could affect their studies. Future researchers could examine effect of marital status on academic performance.



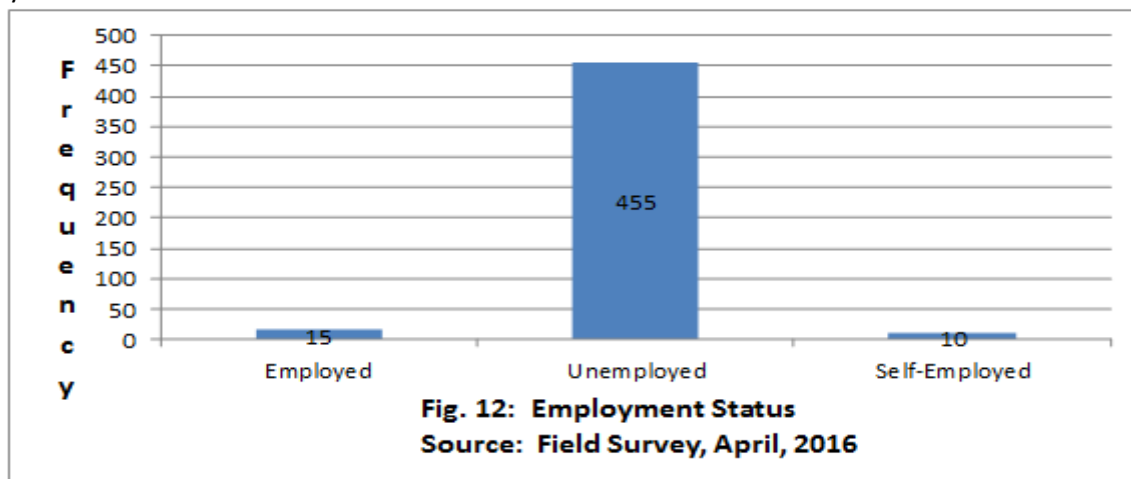
#### iv. Educational Level of Respondents

Figure 11 shows the focus of the respondents. Second and third year HND students of 2015/16 academic year were sampled for the study. First year students were excluded because their results were available during the research period.



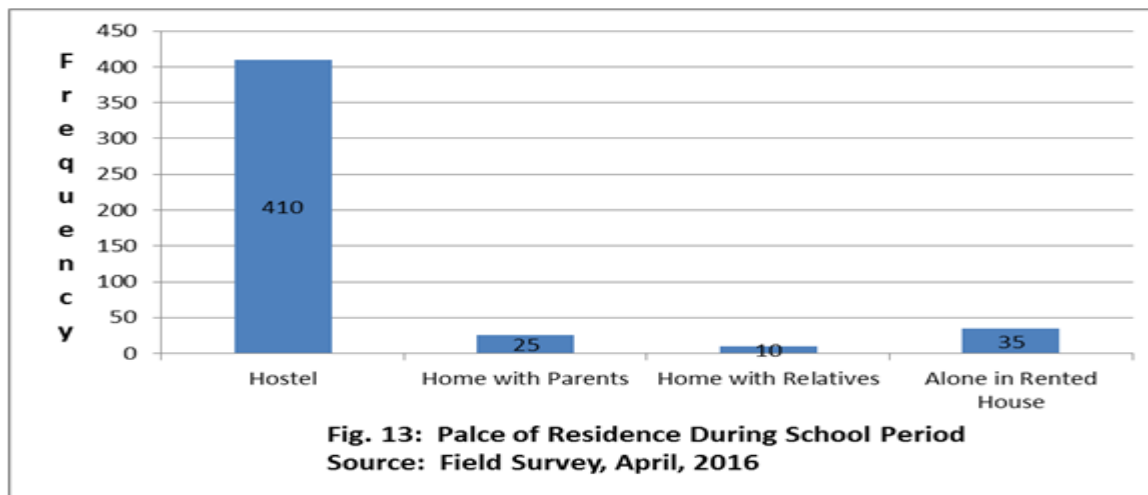
#### iv. Employment Status of Respondents

Figure 12 below shows that 95% of respondents are unemployed; 3% employed and 2% self-employed. Because majority of student respondents are unemployed, they depend on their parents for academic financial support. This is consistent with findings in figures 1 and 2 discussed earlier. In fact, self-employed respondents imply that some students have engaged their entrepreneurial skills to create jobs for themselves to earn supplementary income to support their education. However, it could be very interesting for future researchers to study the effect of employment status on academic performance of tertiary students.



v. *Where do you stay during your academic period?*

Figure 13 shows that about 85% of respondent students live in hostels. This distribution could raise a research question: why most students prefer hostel accommodation to others? Again, it could be very interesting for future researchers to examine the effect of on-campus Vs off-campus accommodation on academic performance of students.



## 5. Conclusions

The study assesses the relationship between family income and academic performance of tertiary students: the case of Ho Polytechnic, Ghana. 480 students were selected using stratified-quota-simple random techniques. Survey questionnaires were used to collect data from respondents. There were mixed results from the study. The findings of this study partly imply that family income of Polytechnic students could affect their learning process, motivation and academic performance at the long-run. Thus, strong financial status of families helps improve students' motivation, learning process and hence better academic performance. However, some respondents strongly argued that family income status is not an essential predictor of better academic performance. This suggests that the objective of the study has been achieved with reference to the outcomes of the study. The study concludes that though higher family income may improve students' performance, but for the responsible and serious students, low family income must not be an excuse for poor performance.

## 6. Recommendations

Well-nurtured students with brilliant results for better socio-economic development of a nation at long run must not be the responsibility of parents alone; all relevant stakeholders must get involved. Poverty must not deny students the right to become future leaders of our dear nations. Therefore, the researchers provide the following recommendations for policy decisions and actions:

i. The government and educational policy makers: Authorities that are concerned with the academic achievement of students should take preventive actions such as developing programs related to counseling and psychoanalysis. To decrease the rate of influence of family income on depression and academic achievement among students, the government should organize practical programs to help families and also students such as food, money and the other supports. These programs could help support students, where they can increase their abilities to concentrate and perform better in school. National budget should be able to factor support for students on needs basis so as to close the poverty-achievement gap in the educational sector.

ii. School authorities: School authorities must remove any form of discrimination and biases relating to socio-economic status of students. They must let the students enjoy the leveled-field of learning process and must also encourage them to participate in all academic activities. Provision of counseling and inspiration to less-privileged students must be encouraged.

iii. Parents and guardians: Despite the economic status of parents and any other external interventions, parents must be totally responsible for their wards' education; supporting them both financially and non-financially. They are encouraged to engage into viable business activities that can earn them more supplementary incomes to support their wards' education.

iv. Students: Low-income status of the families must not demotivate or demoralize students and rob them of their endowed academic potentials and excellence. Students must see every reason why higher academic attainments and achievements are essential. Students must note that money is just one of the resources that promote better academic performance; it is just a means but not an end itself. Students must be bold to say "NO!" to academic failure and dropout due to "no money syndrome".

v. Future researchers: To detect and close the achievement gap, a nationwide, if not a global study on the same or similar topic should be carried out in other institutions, both public and private with a larger sample size. This will help to provide deep understanding and making a generalisation if family income really has any definite effect on academic performance. Few interesting research questions were provided under results and discussions to guide future research.

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