

UNIVERSITY OF EDUCATION, WINNEBA

THE EFFECT OF FAMILY SIZE AND INCOME LEVEL ON CHILDREN'S  
EDUCATIONAL PERFORMANCE IN THE EJISU MUNICIPALITY



**A Dissertation in the Department of Educational Leadership, Faculty of Education  
and Communication Sciences, submitted to the School of Graduate Studies,  
University of Education, Winneba, in partial fulfilment of the requirements for the  
award of Master of Arts (Educational Leadership) degree**

DECEMBER, 2020

## DECLARATION

### STUDENT'S DECLARATION

I, AKUA AGYEIWAA DUAH, declare that this dissertation, with the exception of quotation and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part of whole, for other degree elsewhere.

SIGNATURE: .....

DATE: .....

### SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of dissertation as laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: DR. PHILIP OTI-AGYEN

SIGNATURE: .....

DATE: .....

## ACKNOWLEDGEMENTS

I wish to register my utmost gratitude and appreciation to the Almighty God whose grace and mercy have been sufficient for me. My heart felt gratitude also goes to my supervisor, Dr. Philip Oti-Agyen for his guidance, suggestions, advice and above all supervision of this work. I am grateful to him for his time, patience and tolerance. I also acknowledge all lecturers in the department of Educational Leadership for the knowledge they have imparted in my life.

I am also indebted to my husband Mr. Appiah Bonsu who supported me in diverse ways towards the realization of this work. I am equally grateful to my parent Mr. and Mrs. Agyemang-Duah and all my siblings; Kay, Nana, Abena and Adoma, your encouragement and support morally, physically, spiritually and financially has brought me this far. May Jehovah richly bless you in all your endeavors.

Finally, I would like to thank my course mates; especially Lamini Mohammed, I say God bless you for your support and for the good company we shared.

## **DEDICATION**

To my husband Mr. Appiah Bonsu, my parent Mr. and Mrs. Agyemang-Duah and Late Prof. Martin Amoah.



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## ABSTRACT

The study was undertaken to investigate the effect of family size and income level on children's educational performance in the Ejisu Municipality of the Ashanti Region. The objectives of the study were to determine the major sources of income among families; determine the extent to which family size and income level influence children educational performance; to determine the significance of family policy on child's education and to determine the effects of family income children educational performance. The study used descriptive survey design. The population for this study was 76. Census sampling was used to select all the 71 head teachers and teachers in the five public Junior High Schools for the study. The data was processed using the Statistical Package for Social Sciences (SPSS) software package version 20.0. The study revealed that sources of income for children education were salary / wages, bank loan and investment. The findings also revealed that Students from small family size at all social levels tend to perform better in intelligence test and at school were how family size and income level influence children educational performance. Again, students from low income families attain less education than students from high income families. This study recommends school authorities must remove any form of discrimination and biases relating to socio-economic status of students. They should let the students enjoy the levelled-field of learning process and must also encourage them to participate in all academic activities. Provision of counselling and inspiration to less-privileged students must be encouraged.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Since the end of World War II in 1945, a world rise in people's aspirations in education has culminated in demand for education as a human right and an investment for manpower development. The declaration of education as a basic human right in the world conference on education for all (EFA) Jomtien, Thailand 1990 and the world education forum Dakar, Senegal 2000 have seen people and governments state interest in improving access to education. The UN Convention on the rights of the child states that, every child has a right to education that develops their personality, talents, mental and physical abilities to their fullest potential. Any nation's children are its future workers, citizens and leaders. Education remains the major tool by which people become economically and socially empowered. However, this situation is grossly affected by the cost of Education. In Ghana, through policy Evolution, cost of Education has been met through public and private contribution. The report of the Presidential working party on Education and manpower training for the next decade and beyond popularly known as the (Kamunge report 1988) had many changes. This was at a time when the government scheme for the provision of instructional material through the national textbook was inefficient and therefore adversely affected the quality of teaching and learning. As a result, the government came up with a policy on cost sharing between government, parents and the community. The cost sharing policy entails the cost incurred by the parents in provision of primary education. The parents are expected to meet the cost of school uniform, development of infrastructure, health, transport and boarding facilities (private cost) whereas the government finances

teachers' salaries, target support to vulnerable groups, laboratory equipments, building of new schools especially in arid areas and provision of teaching/ learning materials in all public school (public cost) (Sessional paper no. 1 of 2005 on a policy frameworks to educational training and research.) When parents are not able to meet such cost, it results to high dropout rate that diminishes the pool of qualified people from diverse backgrounds who will enter the professional and political ranks that make important public policy decisions. Every school's mission should be to educate students to become knowledgeable, socially skilled, healthy, caring, and responsible citizens. The provision of widely spread education and training opportunities has been a long-standing objective of the Government of Ghana (GoK). Since Independence, the Government has sought to address the challenges facing the education sector through a range of policy initiatives, often with mixed results. Nevertheless, a major focus has been the attainment of Universal Primary Education (UPE) and the key concerns of achieving greater access, participation, equity, quality and relevance. However, at the outset of the 21st century, the country is faced with new challenges of educational policy, which marry both the right to universal access to education, and the need to enhance rapidly the development of skilled human resources (Otieno & Colclough, 2009). National economic and social policies shape household life and the experiences of children. In Kenya, despite government efforts, poverty has continued to rise, especially in the last eighteen years. Most families live below the poverty line prompting children to drop out of school to look for alternative ways of looking for money. This may lead to child labor hence hinder school attendance (Moyi, 2010). Socio-economic factors affect the nutritional levels, subsequently school attendance, and internal efficiency. The association between attendance rate and nutrition status is a function of

socioeconomic status. The predictive effect of nutrition status on educational achievement is more evident for girls with poor socio-economic status (Mukudi, 2003). Family income determines the poverty levels which subsequently affect the internal efficiency in primary schools. After Free Primary Education (FPE) policy was implemented in Kenya, enrollment in primary education rapidly increased. Indeed, because of the FPE policy, Marginalized children could go to school. They do not have to pay for their tuition, and can receive free textbooks, pencils, and exercise books from the government. According to Orotho (2002) there were other adjustment programmes through the education sector adjustment credit (EDSAC) which emphasize the increased implementation of user charges and budget rationalization. This has resulted in escalating costs of primary education. Ayot 1980 notes that Ghana is probably the only country in East Africa with the highest proportion of cost borne by parent and students. This was deemed necessary because resources were scarce and also education does not only have social returns but also private returns. At primary level private rates of return exceed the social rates of return and thus the beneficiaries of secondary education ought to meet part of their education. Apart from the direct cost of education, there are the opportunity costs which are normally high to poor families. These high opportunity cost coupled with lower expected benefits of education lead to low investment in a child's education among the poor families. Children from poor families perform poorly and this may not have anything to do with lack of cognitive abilities but it may reflect their disadvantaged economic circumstances. Tadoro (1997) refers to this high cost of education (both direct and indirect) charged at primary level as `` the financial process of eliminating the poor from participating in the vital processes of investing in human capital as education and poverty among others causes.

## 1.2 Statement of the Problem

Parental involvement concerns the utilization of numerous family processes which, in turn, create opportunities for learning (Muller & Kerbow, 1993). In an effort to better explain the effect of the demographics of gender, ethnicity, and income level of parents on student achievement. The issue of family size as well as income and its impact on child education has been the concern of most scholars. In Ghana most families find it difficult to provide their children with basic necessities such as food, education, health and nutrition including others. Furthermore due to employment situation in our country most parents lack behind in sending their wards to good school because they cannot afford to pay the schools fees. This could be one the numerous reasons why there are a lot of children on the street without education. Again, family size can also influence the academic achievement of children depending upon the income status of a family. The educational level of children in the Ghana would be equal to their suburban counterparts. However, it is not a perfect world, and educational attainment of children and young adults from varying backgrounds differ greatly.

Do some children have advantages that are not available to other children with differing backgrounds? In educational and economic studies, it has been found that background variables including family income, and family size, are determinants of the amount and quality of education children receive over their lifetime (Jones, 1999; Rosetti, 2000). It is evident that familial and parental factors can either benefit or harm the chances of children receiving an education and excelling in a scholastic environment. More importantly to this paper, the disparity in educational levels among children and adults of

different racial backgrounds has led scholars to question whether the background variables mentioned above have different effects. However, to be confident that the effect of income has been accurately isolated requires more than controlling for family background. The difficulty of controlling for this heterogeneity means that the task of separating the influence of income from other aspects of family background is not straightforward. The latest research from the US uses a variety of different methods of controlling for family background and heterogeneity and finds that family income does have a direct positive effect on educational attainment. However, there is substantial variation in the strength of the identified effect Clark-Kaufman (2003). Therefore, this study seeks to assess the effect of family and income level on children educational performance.

### **1.3 Purpose of the study**

The purpose of this study was to assess the effect of family size and income on children's educational performance using Ejisu Municipality.

### **1.4 Objectives**

The general objective of the study is to assess the effect of family size and income on children's educational performance using Ejisu Municipality as Case study. Under this broad objective, the specific objectives of the study are to;

1. To determine the major sources of income among families
2. Determine the extent to which family size and income level influence children educational performance.
3. Determine the significance of family policy on child's education.

4. Determine the effects of family income children educational performance.

#### **1.4 Research Questions**

In order to assist the analysis, the following research questions will be formulated to guide the study.

1. What are the major sources of income among families?
2. How family size and income level influence children educational performance.
3. What are the significances of family policy on child's education?
4. What are the effects of family on income children educational performance?

#### **1.5 Significance of the Study**

The study provided information on effect of family size and income on children's educational performance using Ejisu Municipality district. The study brought out factors affecting internal efficiency such as enrollment, dropout, repetition and retention. The findings of the study may bring to the fore the effect of large family size on children's education. This will serve as a guide to explain in planning their families. The findings of the study would guide the government and education policy makers in coming out with policies and programmes that would address the financial challenges of children from low income families.

#### **1.6 Delimitation of the Study**

The study was conducted in using Ejisu Minicipal Assembly and would not extend to other districts in the county. It also focused on primary school and did not extend to secondary schools due to financial, time and logical constraints.

## **1.7 Organization of the Study**

The study is organized in five major chapters. Chapter one deals with the Background to the study, statement of the problem, objective and research questions, significance of the study, scope, limitations and organization of the study. Chapter two is devoted to a review of literature on what other researchers and authorities on the subject have written. Chapter three also deals with methodology of the study. Chapter four will analyze the data collected and discusses the findings of the study. Chapter five is the summary of major findings, conclusion, recommendation and suggestions for further studies.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 The concept of demographics in education**

Economists have long been interested in understanding the factors that determine child outcomes. However, despite years of research, evidence on the components of the “production function” for children is still quite limited. Family environment is widely believed to be a primary component, but it is difficult to parcel this out into specific characteristics (Becker & Lewis, 1973).



Among the perceived inputs in the production of child quality is family size. Greater family size may negatively affect child outcomes through resource dilution or because the average maturity level in the household is lower. One could also imagine a positive relationship between family size and child quality if children stabilize marriages or decrease the probability that both parents work outside the home (Becker & Tomes, 1976).

One popular economic model is the quantity-quality model introduced by Becker (1960) and expanded in Becker and Lewis (1973) and Becker & Tomes (1976). This theory was introduced to explain the observed negative correlation between family income and family size; it is often cited and is used as the basis for many macro growth models. A key element of the quantity quality model is an interaction between quantity and quality in the budget constraint that leads to rising marginal costs of quality with respect to family size; this generates a trade-off between quality and quantity. *But is this trade-off real?* Casual evidence suggests that children from larger families have lower average education levels. However, is it true that having a larger family has a causal effect on the “quality” of the children? Or is it the case that families who choose to have more children are (inherently) different, and the children would have lower education regardless of family size?

In a study by Blake, (1989) an attempt was made to isolate the causal effect of family size on children’s outcomes by using data on the entire population of Norway and looking at the effect of an exogenous increase in the size of a family on children’s educational attainment. Their data set included several labour market outcomes in addition to education, covered an extended period of time, and allowed them to match adult children to their parents and siblings; as a result, they were able to overcome many limitations of

earlier research resulting from small sample sizes or limited information on children's outcomes after the children have left home. In addition, they had plausibly exogenous variation in family size (induced by the birth of twins) to identify the causal effect.

Like most previous studies, they found a negative correlation between family size and children's educational attainment. However, when they included indicators for birth order, the effects of family size are reduced to almost zero. These results are robust to a number of specifications, including the use of twins as an instrumental variable for family size. The evidence suggests that family size itself has little impact on the quality of each child but more likely impacts only the marginal children through the effect of birth order. The implications of these findings are quite different from the causal effect of family size on child quality implied by the simple quality-quantity model and may suggest a reconsideration of the determinants of child outcomes.

Given that birth order effects appear to drive the observed negative relationship between family size and child education, we next turn our attention to birth order. There are a number of theories that predict birth order effects; among these are optimal stopping models, physiological differences, and dilution of parental resources when young (both financial and time). Previously, birth order effects had proved very difficult to credibly estimate due to rigorous data requirements Blake, (1989). The unique data set allows us to overcome these data problems; unlike the previous literature, we are able to look both across families and within families using family fixed effects models to deal with unobserved family-level heterogeneity. We find that birth order effects are strong, regardless of our estimation strategy. Moreover, the effects appear to be of similar magnitude across families of different sizes. We augment the education results by using

earnings, fulltime employment status, and whether the individual had a birth as a teenager (among women) as additional outcome variables.

Consistent with their earlier findings, they found little support for significant family size effects and strong evidence for birth order effects with these outcomes, particularly for women. Later-born women have lower earnings (whether employed full-time or not), are less likely to work full-time, and are more likely to have their first birth as a teenager. In contrast, while later-born men have lower full-time earnings, they are not less likely to work full-time.

## **2.2 Theoretical Framework of the Study**

The current literature contains three prevailing explanations for the negative association between family size and educational achievement. The dominant explanation is the resource dilution hypothesis Blake (1981; 1989). This explanation assumes a fixed total amount of family resources, both emotional and material. Thus, the family resources allocated to each child necessarily decrease as an inverse function of the number of children in the family. Only family size, not birth order, is assumed to matter. Downey's (1995) work shows that some family resources, such as economic resources set aside for children's education, follow this predictable decreasing pattern of  $1/x$ , where  $x$  is the number of children. However, other resources, such as computer availability, follow a threshold pattern in which the number of children no longer has a negative effect beyond a certain threshold. If a family's economic resources are diluted due to the need to support multiple children, it follows that the dilution constraint is greater when children are spaced closely than when they are further apart, as those children spaced closely enter college and need economic support from parents at about the same time. This is exactly what Powell and

Steel man's (1990, 1993) research has found. Their work on the particularly acute negative effects of family size when siblings are closely spaced lends strong empirical credence to the resource dilution hypothesis.

Zajonc and Markus (1975) offer a competing hypothesis which they call "confluence" theory. According to this theory, the intellectual environment of the family for a particular child is construed as the averaged combination of parents and all siblings. Parents are assumed to be intellectually superior; the addition of children serves to lower the average intellectual quality, which explains the negative association between family size and educational outcomes. This theoretical model is dynamic in that a family's intellectual environment changes when new children are born into the family. As a result, early born children are less affected by the total family size than late-born children, as the former have lived in a family environment with fewer children, which means a higher average intellectual environment, before the later children were born. Clearly, this theory predicts not only family size effects but also birth order effects. Finally, Zajonc and Markus (1975) also hypothesize that older children benefit from teaching younger children. This teaching function seems to account for two specific findings in their data: (1) singletons do worse than first-born children in family size two; and last-born children seem to be particularly handicapped. Despite the apparent elegance of the confluence theory, it has faced some serious criticisms.

Retherford and Sewell, (1991). The most serious problem with the theory is that decades of empirical research do not seem to support the notion that birth order, net of family size, affects education outcomes (Ernst & Angst 1983). However, it is possible that Zajonc and Markus's (1975) confluence model is too narrowly focused on intellectual

environment. In a traditional or transitional society, such as Taiwan, where children's economic resources are pooled together, we may find that older siblings do influence the educational outcomes of younger siblings. We will turn to the possibility of this type of "confluence" below. The third prevailing explanation in the literature is simply the possibility that both family size and educational outcomes result from unobserved factors at the family level. If this is true, the negative association between family size and educational outcomes are spurious but not causal. One possibility, for example, is that parents who do not place a high value on the "quality" of their children's lives may end up having many children and not investing much in their education. In this hypothetical scenario, the parents would not necessarily improve the educational outcomes of their children even if they were to have fewer children and thus have extra resources (say through an extraneous shock such as infertility).

This view is well represented by Guo and VanWey's (1999) study, which tests the hypothesis of family level unobserved heterogeneity by constructing a fixed-effects model in which the addition of new children is found not to affect the cognitive skills of other children. Critics of Guo and VanWey's study point out its narrow focus on cognitive skills, whereas the literature on family size is concerned with the whole range of educational outcomes; and its research design that necessarily excludes children who are spaced closely -- those children who would suffer most according to the resource dilution model (Downey et al. 1999).

### **Gender Symmetry versus Asymmetry**

With only a few exceptions (Powell & Steelmn, 1989), previous studies exploring the three prevailing explanations have assumed gender symmetry in their discussions of family effects on males and females. The main reason for this practice, of course, is that the existing literature is largely based on data from the United States and Western Europe. In these areas, although women's educational attainment historically lagged behind that of men, this gender gap has now disappeared or even been reversed (Shavit & Blossfeld 1993). Even when women were disadvantaged educationally, this disparity at the societal level did not translate into a sex composition effect of family on one's educational attainment at the family level (Hauser & Kuo, 1998). In other words, girls in families with no brothers or with many brothers fared similarly—attaining less education than boys overall.

However, in a paper written specifically to dispel the notion that sex composition of siblings may affect education attainment, Hauser and Kuo (1998, p.645) explicitly allow for an exception in East Asian countries, “where there is a strong preference for sons.

How does son preference translate into family practices that generate gender inequality in educational outcomes in East Asia? It is not merely a matter of parents spending more material resources on sons' education than on daughter's education. When women's education lagged behind men's education in the United States and Western Europe, this kind of differential treatment of sons and daughters was also true in these countries. As Greenhalgh (1985) forcefully argues, Parish and Willis (1993) convincingly demonstrate the key to understanding the implication of son preference for gender inequality in a Confucian culture such as Taiwan lies in intra-family resource transfers.

At the risk of oversimplification, let us give a stylized description of the patriarchal family that is typical in East Asian countries under Confucian influence, drawing on the work of Greenhalgh (1985) and Parish and Willis (1993). We realize that a great deal of variability exists in the applicability of this description across individual families and over time (Thornton & Lin 1994). In the traditional

Taiwanese family system, sons are permanent members of their natal family and retain life-time contractual relationships with their parents. They are expected to contribute to their parents' economic well-being throughout their adult lives. Thus, it is "rational," or in their self-interest, for parents to invest in sons because they can reap the benefits of the investment over a long period of time. In contrast, daughters are only transitory members of their natal families before their marriage, upon which they move to and contribute to the families of parents-in-laws, though daughters are expected to contribute to their natal family before marriage. Thus, the time during which daughters contribute to their natal family is limited, and education, as human capital, takes time both to occur and to yield a return (Mincer 1974). As a result, parents mobilize resources from daughters, particularly unmarried older daughters, to improve the family budget in general, and sometimes to benefit the educational outcomes of sons. The resources in question are primarily remittances from daughters' market labor but can also be household work, which frees up parents to work longer hours. In Greenhalgh's (1985, p.276) words, "Put baldly, parents' key strategy was to take more from daughters to give more to sons and thus get more for themselves."

### **Close Spacing versus Distant Spacing**

The family system depicted above for Taiwanese society and other East Asian countries undermines a basic assumption in the classic resource dilution model, which assumes that family resources available to facilitate children's education are entirely downward, from parents to children, and thus exogenous and fixed with respect to children's educational outcomes. As we described earlier, in a traditional Taiwanese family, unmarried children can directly contribute economic resources to the family by working and thus help fund their family expenses. Although theoretically both daughters and sons could help their siblings' education, daughters' education is usually sacrificed to help their brothers' education.

In the classical resource dilution model, which assumes only downward resource flow, resources are highly constrained when children are spaced closely. Indeed, the finding of Powell and Steelman (1990, 1993) that the negative family size effects are most pronounced for closely spaced siblings provides strong support for the resource dilution explanation. However, in the Taiwanese context, the sufficient spacing between her and her younger brothers. That is, economic resources of older daughters can only be diverted to help fund the education of their much younger brothers. Thus, contrary to Powell and Steelman's (1990, 1993) claim, we may observe a stronger effect of family size when spacing is far apart rather than when it is close. Consideration of spacing represents an important improvement of our study over prior work by Greenhalgh (1985) and Parish & Willis (1993).

### **Seniority Symmetry versus Asymmetry**

Given the normative path of education-then-work, resource transfer among siblings usually flows from older siblings to younger siblings. This seniority asymmetry implies a



birth order effect: early-born children, particularly daughters, may discontinue education early to work and to fund the education of their younger siblings. There is a large literature based on data from the United States and Western Europe refuting the claim that educational outcomes differ by birth order given family size (Blake, 1989; Ernst & Angst 1983; Hauser & Sewell 1985; Steelman et al, 2002). It may seem odd that we are reintroducing a birth order effect for the case of Taiwan.

Our reason for reintroducing a birth order effect is the argument that there is intra-family resource transfer across siblings in Taiwan, in the form of an older sibling supporting a younger sibling. As Parish & Willis (1993) point out, such seniority-based transfers among siblings are particularly sensible when there is no external credit market for investment in education against future earnings. One can view this type of intra-family transfer as a mirror analog of the teaching effect in the confluence model (Zajonc & Markus 1975), which hypothesizes that older siblings benefit from an opportunity to teach younger siblings. However, whereas the teaching effect is assumed to be positive so that the last-born is assumed to be the most disadvantaged by the confluence model, our intra-family transfer model recognizes the disadvantage of the early-born in bearing the burden of supporting younger siblings, and thus the relatively favourable position of the last-born child.

The preceding discussions concerning gender, spacing, and seniority are all intricately and intrinsically interrelated. They are all based on a special feature of the Chinese family. As Parish and Willis (1993, p.866) observe, “One of the best things that can happen to a male, besides being born to rich, well-educated parents, is to have an older sister.” In their model, we suggest that the worse scenario that can happen to a female is

“to have much younger siblings”. Thus, they treat the influences of gender, spacing, and seniority in family as interactive, rather than additive, effects on educational outcomes.

## **2.2 How family size influence children academic achievement**

More than fifty years ago, Becker (1960) applied the principles of standard consumption theory to analyze the decision to have children within an economic framework. He and his co-authors subsequently conceptualized parents' fertility decisions as a trade-off in the number (quantity) of children that they choose to have versus the per-child investments (quality) that they choose to make in them (Becker & Lewis 1973; Becker & Tomes 1976). Since then, the relationship between family size and children's human capital has become one of the most frequently estimated relationships in social sciences with a vast literature concluding that children in larger families tend to have smaller human capital endowments (see Hanushek (1992); Schultz (2005) for a review). This negative relationship is likely to be spurious, however, if researchers do not account for the simultaneity in parents' choice of child quantity and child quality. Economists have turned to the plausibly exogenous increase in family size generated by multiple-births (Rosenzweig & Wolpin 1980; Black et al. 2010; 2010; Cáceres-Delpiano 2006; Angrist et al. 2010) or the gender mix of siblings (Goux and Maurin 2005; Conley & Glauber 2006; Angrist et al. 2010) in an effort to identify the causal effect of family size on child outcomes. In general, these studies generate very little evidence that increasing family size results in poorer outcomes for children (see Conley and Glauber 2006; Angrist et al. 2010), though there are important exceptions. Cáceres-Delpiano (2006), for example, finds that

twin births reduce first-born boys' chances of attending private school, while Black et al. (2010) find that twin births have a negative effect on the IQ of older boys.

The goal of this paper is to contribute to this literature by analyzing the impact of family size on several unique measures of education achievement for pupils attending primary school in Australia. We are particularly interested in the following research questions: Do children in larger families suffer from a disadvantage in education achievement, as measured by standardized test scores in years 3 and 5 of primary school? Do teachers overestimate or underestimate this disadvantage? Are parents aware of this disadvantage? In addressing these questions, we make several contributions.

First, we focus on family-size effects on the school achievement of primary school pupils rather than on later – and arguably cruder measures of – educational outcomes (e.g. educational attainment, grade retention, private school attendance, etc.). This is of interest because difficulty in early school years may have consequences on later educational experiences, even if they do not affect school attainment per se. Second, we investigate whether teachers exhibit stereotypes in relation to family size either by overestimating or underestimating family-size effects.<sup>1</sup> This is important because if teachers have negative stereotypes, this can lead pupils to exert lower efforts and achieve lower outcomes in a 'self-fulfilling prophecy' (Arrow, 1973; Mechtenberg, 2006). Moreover, there is some evidence that the lower expectations of teachers' for children from stigmatized social groups may increase children's difficulties in school (see review by Jussim & Harber, 2005). Third, we estimate family-size effects in parental reports of children's achievement. These are likely to differ from those inherent in objective achievement measures, e.g. standardized test scores, because parents may have difficulties in evaluating their child's

performance relative to his peers or because they suffer from a declaration bias such that they systematically overestimate their child's success, particularly if he does not perform very well. These estimates are important because parents are an essential source of support for children and it is important that they are aware of children's difficulties. Finally, we use a birth-cohort data-set to provide the first evidence on the quantity/quality trade-off for Australia.

We identify the effects of family size on our objective and subjective achievement measures using a combination of the gender mix of siblings and twin births as instruments in instrumental variables (IV) model.<sup>2</sup> While some researchers use one or the other, combining the two instruments broadens the population used in the estimation and increases external validity. Moreover, both instruments are potentially subject to omitted variables biases and “a comparison of twins and sex-composition estimates therefore provides a specification check since the omitted variables biases associated with each type of instrument should differ” (Angrist et al. 2010). We interpret the fact our two instruments yield similar results as evidence for the internal validity of our estimates.

We find strong evidence for the existence of an objective disadvantage stemming from growing up in a larger family, as measured by National Test Scores (NAPLAN). Specifically, the IV estimates suggest a meaningful negative impact of having more than one sibling on tests scores of around 29% and 39% of a standard deviation, respectively in reading and numeracy. Results also suggest a negative bias in teachers' achievement towards larger families such that: having more than one sibling leads to a decrease in assessment by teachers of about 33% and 51% of a standard deviation, respectively in reading and numeracy. Parents' assessment of the family-size disadvantages are smaller

than test score estimates (respectively 14% and 21% of a standard deviation), suggesting that they minimize the objective disadvantage and ignore the subjective one induced by teachers.

The rest of the paper is structured as follows. Section 2 briefly reviews the existing literature and sets out our empirical approach. Section 3 describes the data and sample used.

### **2.3 Family Size**

The empirical literature on the effects of family size on child outcomes generally supports a negative relationship between family size and child “quality” (usually education), even after controlling for socioeconomic factors.<sup>9</sup> However, few of these findings can be interpreted as causal; family size is endogenously chosen by parents and hence may be related to other unobservable parental characteristics that affect child outcomes.

In addition to the issues of endogeneity, the literature suffers from significant data limitations. Typically the studies do not have large representative data sets and do not study outcomes of economic interest, such as completed education and earnings. Additionally, the absence of information on birth order often means that birth order effects are confounded with family size effects. While the literature is extensive, we discuss below some of the studies that attempt to deal with some or all of these problems.

Rosenzweig & Wolpin (1980), Lee (2003), and Conley (2004) all attempt to use exogenous variation in family size to determine the causal relationship between family size and child “quality.”<sup>10</sup> Rosenzweig & Wolpin [1980], using data from India, and Lee (2003), using data from Korea, examine the effect of increases in fertility induced by twin

births and sex of the first child, respectively, on child quality. Rosenzweig & Wolpin find that increases in fertility decrease child quality, while Lee finds that, if anything, larger families result in more educational expenditures per child. However, in both cases the sample sizes are small (25 twin pairs for Rosenzweig & Wolpin, approximately 2000 families for Lee), the estimates imprecise, and any family size effect could be confounded by the omission of birth order controls.

In one of the most thorough studies to date, Conley [2004] uses U. S. Census data from 1980 and 1990 to examine the effect of family size on private school attendance and the probability a child is “held back.” To identify the causal effect of family size, he uses the idea that parents who have two same-sex children are more likely to have a third child than equivalent parents with two opposite sex children.<sup>11</sup> Using this as his instrument, Conley finds a significant negative effect of family size on private school attendance and an insignificant positive effect on whether a child is held back; when he analyzes the effects separately for first-born children and later children, he finds the effects are significant only for later-born children. However, his work is limited by the absence of better data; because of the structure of the Census data, he only has access to intermediate outcomes that may be weak proxies for outcomes later in life, and he does not know the structure of the family for families in which some individuals do not live in the household. Also, a recent literature suggests that sex composition may have direct effects on child outcomes (Dahl & Moretti [2004], Butcher & Case (1994), Conley (2000),

However, Kaestner (1997) & Hauser & Kuo (1998) find no evidence for these effects). Such effects imply that sex composition may not be a valid instrument for family size.<sup>12</sup> We take two approaches to distinguish the causal effect of family size on children’s

education. First, we include controls for family background characteristics and birth order to see how much of the estimated effect of family size on child education can be instead attributed to these observable factors. Our second approach implements two-stage-least squares (2SLS) using the birth of twins as a source of exogenous variation in family size. There are two very clear patterns. First, only children have much lower education than the average child in two- or three-child families.

Second, from family sizes of 2 to 10, we see a monotonic relationship that greater family size accompanies lower average educational attainment. This observed negative relationship is generally found throughout the literature.<sup>13</sup> Table III also shows that the family size effects are present throughout the education distribution. Although in estimation we focus on years of education, we have verified that similar results are found throughout the distribution.

#### **2.4 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 cat 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.

## **2.5 The significance of family policy on child's education**

Almost all industrialized countries have family policies designed to provide income support and social services to families and children. The term, family policy, has been differently defined and measured among researchers. For instance, family policy is a term used to describe what government does to and for families, in particular those public policies that are explicitly designed to affect the situation of families with children, and those that have clear consequences for children and their families even though the impacts may not have been intended (Kamerman, 2003). As a sub-category of public policy, the family policy includes laws clearly directed to families, child or family allowances, tax benefits, maternity and parenting paid and job protected leaves, early childhood education benefits and services, child support or advanced maintenance policies providing financial support for children by a noncustodial parent, child protection service, subsidized goods and services, other child conditioned benefits linked to old age, disability, or unemployment benefits, and maternal and child health care (Kamernam, 2003).

Family policies can also be defined as “an amalgam of policies directed at families with children and aimed at increasing their level of well-being” Gauthier, (2003). From a broad perspective, topics as varied as employment, transport, food and education policies may be included in the definition of family policies in view of their potential impact on

families' well-being. In general, however, the literature tends to opt for a narrower perspective and to restrict family policies to its several core components (Gauthier, 2003).

According to Baker (1995), family policy, broadly defined, refers to a coherent set of principles about the state's role in family life which is implemented through legislation or a plan of action. For Baker, family policies encompass three areas of policy making. First, there are laws relating to family issues such as marriage, adoption, reproduction, divorce, and child custody. Second, there are policies to help support family income such as maternity leave, childcare costs and availability, family and child allowances, maternity and parental leave, and child benefits and support. The third category refers to the provision of direct services that may include childcare provision, home care, health service, and subsidized housing.

Although there is a slight difference between researchers in the definition and scope of family policy, they share common features. Accepting the narrow perspective and focusing on those common features, the scope of family policies in this study includes follows: (1) income support for families and children (e.g., child allowance, tax expenditure for dependent children); (2) parental leave policies for working parents (e.g., duration of parental leave, duration of total leave, cash benefits during parental leave); (3) early childhood education and care (ECEC).

## **2.6. Models of Family Policy**

### **Typologies of Welfare States**

Before exploring theoretical linkages between family policies and children's educational achievement, this section reviews how theorists and researchers characterize

and differentiate the welfare states based on sets of family policies and institutions. When comparing countries, it is difficult to hold all possible explanatory factors under control, due to the relatively limited number of cases Ferrarini, (2006). Further, countries tend to have a combination of several policy packages; thus it might not be enough to examine the effect of any single policy. One popular approach to overcome these problems is the welfare state typologies. Welfare state typologies order countries into different classes based on certain criteria such as institutional design of political and social policy institutions, labor market outcomes or structures of inequalities in the welfare state (Ferrarini, 2006; Kamerman, 2003). The typology thus ascribes similarities to countries within the same category, as well as positing dissimilarities between groups of countries in different categories.

There have been considerable efforts to characterize and differentiate welfare states based on their institutional features Esping-Andersen, (1999). Among others, Esping-Andersen (1999)'s ground-breaking work is worthwhile to be discussed. Esping-Andersen used the term *welfare state regimes* as an organizing concept to describe social policies of advanced industrialized countries and governments' roles in managing and organizing the economy, employment, and wages as well as providing social protection Kamerman, (2003). In his work on the typology of welfare states, Esping-Andersen (1999) employs the concept of decommodification which refers to "the extent to which individuals and families can maintain a normal and socially acceptable standard of living regardless of their market performance" Esping-Andersen, (1999). The welfare state decommodifies labour because "certain services and a certain standard of living become a right of citizenship and reliance on the market for survival decreased" (Esping-Andersen, 1999).

However, under market capitalism, pure decommodification is not possible; thus, the important issue is the relative degree of social protection from dependence on the labour market provided by the welfare state. Based on different welfare state institutions, social policies for social protection, and the resulting relative degree of decommodification,

Esping-Andersen introduces three types of welfare state regimes: Social Democratic, Conservative, and Liberal model. More specifically, he characterizes social policies in the

Nordic countries as generally organized along Social Democratic lines, with generous entitlements linked to universal social rights. Social policies in continental Europe are largely Conservative, typically tied to earnings and occupation, with public provisions replicating market-generated outcome. Social policies in the Anglo-Saxon countries are described as Liberal; that is, they are organized to reflect and preserve markets and most entitlement to welfare provisions are derived from need.

Esping-Andersen's influential work discussed above has been faced with broad critiques, especially from feminist welfare state theorists. The main argument of them is that his typology of welfare states marginalized women and families in its analysis Bambra, (2005) more specifically; decommodification is a gender-blind concept being unaware of the role of women and families in the provision of welfare. Further, social policies realizing decommodification in the real world exclude women-related ones such as family leave and child care Bambra, (2005).

Esping-Andersen (1999) himself responded these critiques by incorporating several family policy indicators into his welfare state typologies: (1) overall servicing commitment (non-health family service expenditure as a percentage of GDP; (2) overall commitment to

subsidizing child families (the combined value of family allowances and tax deductions); (3) the diffusion of public child care (day-care for children less than 3 years); (4) the supply of care to the aged (percentage of aged 65+ receiving home-help services). He concludes that incorporating this measure does not change much his original welfare state regime typology discussed in the previous section. Gauthier (2002) also proposes the typology of family policy regime with more extensive indicators of social policies for women and families with children. Her typology identifies four main family policy regimes which is not substantially different from Esping-Andersen's work.

Although typologies developed by Gauthier (2002) explicitly incorporate family policy dimensions into their analyses, they suffer from several limitations. Among others, indicators used for typologies are limited. Esping Andersen, for example, did not include parental leave policy, one of the important elements of the family policy arrangement, in his typology. Secondly, they seem to assume that family policy and institutions have only one dimension. As well criticized by Ferrarini (2006), each element of family policy and institutions could be grouped into several different categories. For example, parental leave policy and child allowance may have different consequences in terms of women's work or child well-being.

Leitner (2003) categorizes a series of family policies into two groups – familializing and defamilializing policies. Here, familializing policies, which attempt to strengthen the family in its caring role, includes parental or family leaves, cash benefits or tax reductions for caregivers, or social rights attached to care, such as pensions. On the contrary, defamilializing policies, which relieve the family of providing direct care, might include the public provision of child care or other services. According to Leitner, each welfare state

combines familialistic and defamilialistic policies, and, based on this notion, she develops the typology. Based on this typology, Leitner (2003) analyzes how different policy arrangements suggest different forms of familialization and defamilialization. For example, different from Esping-Andersen's (1999) or Gauthier's (2002) argument, Leitner argues that Social Democratic countries appear to provide optional familialization rather than defamilialization. Furthermore, Liberal countries provide both explicit familialization and defamilialization, while Conservative countries are split between explicit and implicit familialization.

Korpi's family policy typology has several advantages over others previously discussed. First, it is explicitly two-dimensional- general family support and dual earner support-, and family policy indicators are aligned on those two dimensions Ferrarini, (2006). Secondly, while previously discussed typologies include both family policy institutions and policy outcomes as indicators for the typology, Korpi's model is based only on institutional family policy indicators Ferrarini, (2006).

### **2.6.1. The Impact of Family Policy on Children's Educational achievement**

In this section, I will explore in depth the theoretical role of family policy contexts in shaping children's educational achievement. Family policies and institutions are expected to influence various outcomes related to families, women, and children such as women's fertility decision, women's employment and earning, and various outcomes of child well-being Gauthier, (2000, 2002). For the purpose of this study, however, focus will be on the impact on children's educational outcomes.



Public policies and programs designed to support families with children are expected to influence child education. Income support for families and children (e.g., child allowance, tax credits for dependent children) may have a positive impact on children's educational outcome through directly increasing the level of family income.

Income support programs directly raise the disposable income of parents and this additional income provides more room for making investments in their children Mayer, (1997). Alternatively, this additional income may decrease parental stresses or pressures related to low income, thereby positively affecting family processes Conger, (2005). Although an exact causal mechanism and the magnitude of the effect differ across scholars, there is a consensus that additional income from such income support policies has a positive impact on child development or educational achievement.

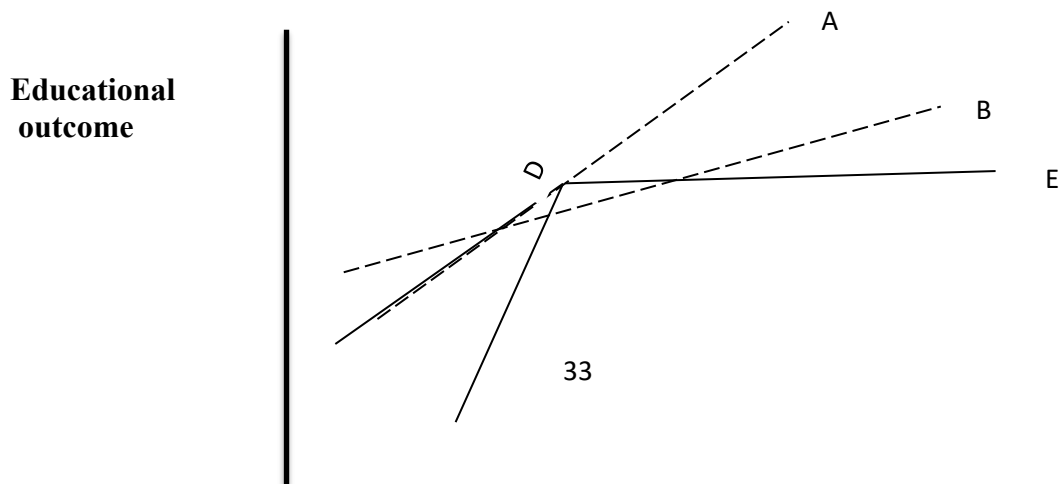
Other policies and institutions such as generous parental leave policies and socially provided child care and early education services influence children's educational outcomes as well. First, these policies and programs make women's work and childrearing compatible, and this compatibility enables women with children to be attached more to labour market (Bambra, 2004, 2005; Gornick & Meyers, 2004;). As the primary caregivers for children, women with young children often pay a *child penalty* in the form of reduced labour force participation and lower wages (Gornick, Meyers & Ross, 1998; Waldfogel, 2001). Due to weaker labour market attachments and lower wages, children could be more likely to be poor. By providing a generous leave after childbirth and an alternative to full-time caregiving in the home, these penalties will be reduced, thereby enhancing families' economic well-being. The increased family income through this process can be positively linked to other child outcomes such as educational achievement as discussed above.

Second, but not less important, generous parental leave policies enable parents to spend more time with their children, thereby enhancing child development and achievement. Since research has shown that development and achievement during the earliest years of childhood is crucial for a later achievement, the positive effect due to generous parental leave policies may be long lasting. Early childhood education and care (ECEC) is another example of family policy which may directly influence children's educational achievement. Since ECEC directly provides children with care services and education, ECEC with high quality can have direct consequences for children's human capital accumulation (Meyers & Gornick, 2003).

#### Moderating Role of Family Policies

While family policies and programs may directly influence children's educational outcome (or through mediating processes), they also moderates the relationship between family-level characteristics and children's educational outcomes.

The moderating role of income support policies in the effect of family income on child education can be explained as follows (Mayer & Lopoo, 2008). Although this explanation is originally designed to explain the role of governments' spending in moderating the relationship between parental income and generational mobility, it can be applied to the context of child education.





**Source: Adapted by the author from Mayer and Lopoo (2008)**

Figure 2-1. The relationship between parental income and educational outcome

In Figure 2-1, the line C-D-E indicates how children's educational outcomes increase by additional parental income without any governments' support. If parental income increases so does educational achievement, since parents invest more in their child. However, if optimal investment occurs at point D, additional parental income might not affect child education anymore. The dotted line A represents an estimated regression line in this case. Suppose the government provides income supports for poor families, the line will be changed to F-D-B, all else equal. The regression line in this case will be represented by the dotted line B. As seen in the difference between the two regression line A and B, the government income support programs can moderate the relationship between parental income and child education.

The magnitude of difference between the line A and B may further depend on several factors such as: (1) the extent to which rich parents reduce the investment in their children by paying taxes to support the poor parents, and (2) the extent to which governments' income support crowds out investment by poor parents, and how leaky the transfer bucket is. In sum, the relationship between parental income and children's educational outcomes differ across the level of income support policies, and the direction and magnitude of differences can be more complicated by several factors discussed above.

The effect of family social capital such as living in a single-parent family or a large number of siblings can be moderated by income support policies as well. The negative effect of living in single-parent families is often associated with prevalent low income in those families. If generous income support policies lead to more investment in children in those families, the negative effect will diminish or disappear (Pong, Dronkers & Hampden-Thompson, 2003). Similarly, resource dilution in families with a large number of siblings may, at least partly, be compensated by governments' income support (Park, 2005; Xu, 2008).

Parental leave and ECEC policy also interact with family background and family social capital to determine children's educational outcomes. A good example may include the moderating role of these policies in a negative relationship between maternal work and child outcomes. While mothers' work in the labor market enhances children's economic status, theoretical linkage between mother's work and child development and educational achievement is ambiguous. On the one hand, as discussed earlier, more income resulting from mother's employment makes it possible for parents to invest more resources in their children. However, other researchers suggest a negative relationship.

Working mothers usually have a dual job of childrearing and work in the labour market. Under this circumstance, the allocation of maternal time to the labour market comes at the expense of time invested in childrearing, which may negatively influence child development or education (Verropoulou & Joshi, 2006). Further, the family stress perspective posits that mother's work in the labour market may cause psychological stress, and this stress diminishes mothers' ability to be supportive, consistent, and involved with their children (Kalil & Ziol Guest, 2005).

Even if the negative impact of mother's work with regard to child well-being is true, this negative relationship can be diminished by parental leave and ECEC policies.

Generous parental leave policy grants parents the right to take time off for caregiving or free up parents 'caring time (Gornick & Meyers, 2006), and thus parents can provide quality care to their children, which in turn produce better child outcomes. Considering the evidence that first years of life are particularly important for cognitive, physical, social, and emotional development Shonkoff & Phillips, (2000), the moderating impact of generous parental leave may amplify. Furthermore, these policies may moderate the possible negative relationship between mother's work and child outcomes by diminishing parental stress. Without such family policies, parents -especially working mothers- may suffer from economic insecurity as well as parental stress to reconcile the burdens of work and childrearing. This may affect the quality of their parenting and in turn child outcomes.

### **2.6.2. Empirical evidence**

This section aims to review empirical research on the effect of family policies on children's educational achievement. The empirical research in this domain could be divided into two: (1) the comparative cross-national study utilizing aggregate-level or household-level data; (2) studies conducted in one country utilizing household-level data. Although comparative cross-national studies are more relevant to this statement, these types of studies are sparse. Therefore, this review also includes the studies conducted in one country.

### **Moderating Role of Family Policy**

Evidence suggests a significant variation across countries in the relationship between family-level characteristics and children's educational outcomes. For example, Robert (2003) and Bassani (2007) examined the effect of family social capital on children's educational achievement using combined survey data from 27 countries and 3 countries, respectively. Both found that the effect of family social capital variables (e.g., family structure, maternal work, number of siblings, and parent-child relationship) significantly differ across countries. Micklewright & Schnepf (2004) found similar evidence for the sample of English-speaking countries from several multi-national surveys. However, these studies did not explicitly model or address which macro-level contexts across countries might contribute to this variation. Using the welfare-state theories and typologies, recent scholarship has begun to produce findings on the relationship between the family and education in a comparative perspective. For example, Park (2005) and Xu (2008) examined how the effect of family size on educational achievement varied across countries utilizing multi-national survey data, the Program for International Student Assessment (PISA). Analysis using hierarchical linear modeling (HLM) to adjust for the clustering effects suggests that the negative impact of a large family size on educational achievement is weak in the countries with strong public policies (e.g., Nordic countries); however, the opposite is true for countries with weak policy settings such as Anglo-Saxon countries. Another important study relevant to this issue is the work done by Pong and her colleagues (2003). They explicitly focused on the role of family policy in moderating the effect of living in single-parent families on educational achievement.

## **2.7 The effects of family income children academic performance**

There are a large number of possible routes by which the children of low income families do less well at school; some of these are causal and others are non-causal. It is the impact of the causal factors that we seek to identify Becker & Tomes, (1986).

Non-causal relationships are circumstances that lead to low attainment that are linked to, but not caused by, low family income. Low income families contain adults with characteristics that may leave the children more prone to low educational achievement. Such characteristics would include low parental education or other less easily observed adult heterogeneity, which leads to lower home-based child development. Examples of this are: poorer innate ability; a lower emphasis on educational achievement in parenting; or a reduced ability to translate parenting time into educational development. Also in this category would be a shock leading to both low attainment and low income, such as a family break- up. In all these scenarios it is not low income itself that causes reduced attainment. A further mechanism emphasised in the child development literature is that financial problems increase family conflict and parental stress reducing the ability for parents to engage in effective parenting that improves educational outcomes.

The economic literature on the causal relationship between income and educational attainment has a strong emphasis on direct financial investments in children's human capital, Becker & Tomes, (1986). The underlying theory is of utility maximisation over spending on investments in education, consumption and other investments, where the three alternatives are strictly substitutes. While there are clearly some direct investments that parents can make in their children's development (including money for fees and maintenance in higher education) this seems less relevant at early ages.

During childhood a large portion of how income influences attainment is likely to come through as the co-production of education alongside consumption or other investments. Examples of this are the provision of a good home environment through books, toys and outings Burgess et al, (2004) show these to be important for a cohort in Avon). Here the books and toys are purchased for current consumption as well as educational benefits. Equally the housing decision, while certainly influenced by school quality, has other benefits including the investment potential of the house itself.

Disentangling income effects from unobserved family or child heterogeneity requires some ingenuity and a careful statement of econometric models. To our knowledge, three approaches have been most widely used in the context of educational attainment (Blow et al. (2004), provide a comprehensive literature review for this area). The majority of these strategies exploit variations in incomes within families rather than longer term income differences which may have larger effects.

#### **i) Experimental Trials of Policy Interventions**

In the US there have been a number of welfare to work programmes undertaken under experimental conditions and evidence from these is perhaps the cleanest and clearest available. The relevant population in the trial is divided into a treated group who participate in the programme and an untreated control group. This random allocation ensures that treatment is not correlated with family or child characteristics. Such trials became more common from 1996 when the Clinton administration allowed states to administer their own welfare to work programmes. Under these programmes the treated receive an exogenously driven change in family income which is not received by the untreated programme families. In all cases the financial payment is attached to other conditions, but they can be



nonetheless informative. Some welfare reforms that focus on getting lone mothers into employment (and off welfare) have included child outcomes in their evaluations. The most recent and comprehensive assessment of the effects on children is contained in Clark-Kauffman et al. (2003); we report the key results from their research.

This analysis pools the data from a large number of random assignment welfare experiments and compares the treated and control groups. These programmes were aiming to raise employment and earnings of welfare dependent families in the US; some also offered additional cash assistance when mothers moved into work. Column 1 reports the evidence of programme effects on child educational attainment test scores for those programmes with cash assistance, so that the observed changes in child outcomes reflect the combined effect of work and income changes. The income gains among the treated participants in these earning-supplement programmes were modest at \$1500-\$2000 (£1000 to £1300) per year over the untreated participants for two to three years. Column 2 shows the impact on child test scores for programmes based on raising maternal employment without additional in-work financial support (job search counselling or education based approaches). These had positive employment and earnings effects but had very modest effects on family incomes, as benefit payments are withdrawn. The differences between columns 1 and 2 reflect the impact of the extra effect of income as both types of programmes led to similar employment and earnings changes. The size of the attainment gains for pre-schoolers is modest, but statistically significant, raising attainment by 8 percent of a standard deviation. At older ages there are no differences across the programmes except that at ages 12 to 15 there are large, but poorly identified, negative results associated with the programmes without earnings supplement.

Another interesting set of experimental programmes are the evaluations of the Moving to Opportunity (MTO) programme Goering & Feins, (2003).

In these programmes families from poor neighbourhoods are randomly selected into one of three populations. The first is given financial help with rents conditional upon moving to a more affluent neighbourhood. 4 A second group received rent support but could move to any neighbourhood. The third group received no help in moving from the deprived neighbourhood. So the treatment is that families receive financial support to meet higher housing costs associated with moving to more affluent (and high rent) areas, provided they make the move.

These studies provide crucial evidence of how higher incomes might influence children's educational attainment by enabling families move to live in affluent areas with better schools and peer groups. Importantly these moves were not associated with increases in employment or earnings among adults, so the effects observed are operating purely through neighbourhood change. Table 3 reports details of child outcomes across studies from two moving to Opportunity (MTO) sites in Boston and Baltimore, as reported in Goering & Feins (2003). The results suggest that moving neighbourhood (which is hand-in-hand with changing school and peer group for most children) is associated with marked improvements in behavioural problems and school test scores and, for older children, a reduction in the number of arrests for violent crime.

These studies provide powerful evidence for income effects on child outcomes, however, the specific samples involved and the enforced link between income increases and other changes (employment or moving neighbourhood) may mean the results do not generalise to the population at large.

In the UK random-assignment experiments are very rare; however there is one policy evaluation that is relevant to our context. The Education Maintenance Allowance was piloted in 15 Local Authorities in the UK from 1999 onward. It offered youths from low income families a weekly financial payment (of up to £40 a week), for up to two years, provided they stayed on in full- time education after compulsory schooling ends at age 16. Non-attendance leads to payment withdrawal and there were bonuses for course completion. The EMA is therefore a means tested cash payment conditional on educational enrolment. Ashworth et al. (2003) report evidence of the impact of this programme where eligible and ineligible populations in the pilot areas are compared (through propensity matching techniques) to similar people in 11 areas not taking part in the programme. The evaluation suggests school/college enrolment increased by 6 percentage points for those eligible for full subsidy. Additionally there was no increase in dropout rates and staying on rates into a second year also improved. The EMA is being implemented nationally at the start of the 2004-2005 academic years.

## **ii) Sibling Studies**

The variation in family incomes experienced by the siblings comes from the age gap between them. This means that siblings will be affected by income in different periods because other children have either not been born yet or have already left home. This approach uses income variations within a family rather than differences across families. Sibling studies require an income history for the family including some periods of differing income experience.

The central problems for sibling studies is that siblings will often be close in age and experience very similar income patterns for most of their childhood. Also, only families with two or more children can be considered. Further, measurement error in data reporting will lead to attenuation bias. An advantage of this approach is that income shocks in the family will be experienced by siblings at different ages; this can provide evidence on when in childhood income matters most. Levy & Duncan (2000) is a recent sibling study using the Panel Study of Income Dynamics. They find that parental income matters most for young children but that the magnitudes of the effects are small with a 2.7 fold increase in family income through childhood adding three quarters of a year to completed years of schooling by age 20. These are extremely small impacts compared with others found in the literature.

### **(iii) Post Educational Income**

Mayer (1997) also considers whether transitory income fluctuations have an impact on child educational outcomes. Leaving aside the question of measurement error, income at a point in time can be thought of as composed of transitory and permanent components. Therefore in a regression of the relationship between income and education the income parameter will be a weighted-average of the coefficients that would be obtained if measures of permanent and transitory income could be entered into the model separately.

Mayer uses a range of child outcomes and test scores as dependent variables. The addition of post-childhood family income reduces the estimated impact of a 10% increase in income on years of schooling from 1.86 to 1.68 (after conditioning on observed family fixed characteristics). The conditioning on later income makes only a minor difference but is more important for other outcomes such as teenage motherhood and dropping out of

school. A concern with this approach is that income changes between the two periods considered reflect family shocks that influence child attainment independently. In addition, lifecycle models predict that anticipated income changes will affect behaviour in all periods if families can smooth consumption.

The US literature consistently shows that family income does influence a child's educational attainment. However, as studies consider a range of outcomes and sometimes refer to specific population groups or ages of children, it is difficult to form a clear picture of the results across identification strategies. The identified causal income effects appear small in the sibling study but much larger in the work by Mayer described above, and in the experimental studies. The majority of the identification strategies focus on income variations that are unrelated to fixed family characteristics.

Naturally such variations tend to be small. They would not show the impact of changes in income sufficient to change residential neighbourhood, for example, which is so important in determining peer group and school quality. In this regard the MTO experiments are particularly revealing; showing that neighbourhood makes a substantial difference to child educational and behavioural outcomes.

British work on uncovering the causal impact of income on education is less well-developed than the research on US data. As has already been mentioned Gregg and Machin (1999) try to isolate the impact of financial disadvantage by carefully controlling for confounding factors. Ermisch et al. (2002) use the sibling methods described here on BHPS data to try and uncover the effect of parental employment (rather than income) on educational attainment. In the following sections we explore the extent to which the data available in the UK enables us to identify the impact of income on educational attainment.

## 2.8 Family Income vs. Academic Performance

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 & 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.



## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

The chapter presents the methodology that was used for the study. It comprised the research design, population, sample and sampling techniques, data source, data

collection instrument, pilot-testing of the instrument, validity and reliability of the instrument, data collection procedure, data analysis and ethical considerations.

### **3.1 Research Design**

According to Kothari (2004), a research design is the advance planning of the methods to be adopted for collecting the relevant data and the technique to be used in their analysis. The researcher employed the descriptive survey research design to describe the attitudes, opinions, behaviours or characteristics of the population (Creswell, 2012). According to Creswell, the procedure makes survey researchers collect quantitative data using questionnaires, and statistically analyzing the data to describe the trends about responses to questions and test research questions or assumptions. Therefore, descriptive survey design is the procedure of describing, recording, analyzing and interpreting conditions (Agyedu, Donkor & Obeng, 2013).

Considering the nature of the study thus assessing the impact of demographic on children's educational performance in the Ejisu Municipality, the descriptive survey research design was deemed appropriate. This was because the design made it possible to generalize the results of the study and might be applicable to other communities in another district.

### **3.2 Population**

The target population for the research comprised of seventy-six (76) headteachers and teachers of the selected schools namely Manhyia M/A JHS, Ampabame M/A JHS, Adadietem M/A JHS, Boankra M/A JHS and Besease M/A JHS at Boankra circuit in the Ejisu municipality Education Directorate. The municipality was chosen as it is the place of

work of the researcher; therefore, gathering data would be relatively easier and more organized in terms of collection and collating. The schools were chosen because it represents the workplace where the researcher discovered the problem which influenced this study. The targeted population for the study was all the head teachers, and teachers of the Boankrah Circuit of the Ejisu Municipality of the Ashanti Region.

### 3.3 Sample and Sampling Procedure

Borg and Gall (2007) define sampling as a technique used for selecting a given number of subjects from a target population as a representative of the population in research. To determine an appropriate sample size for the study, an updated list of all the headteachers and teachers was obtained from the Ejisu Municipal Director of Education.

Census sampling method was employed to involve all the five head teachers, and 71 teachers in the five basic schools of the Boankrah Circuit. Census technique was considered appropriate because the researcher collected and analyzed from every headteachers and teachers. Creswell (2005) postulated that census sampling is used in schools to find out respondents opinions on possible issues. The procedure increases sample and it covers the whole population. Census technique is unbiased and is totally representative.

A total of 76 respondents consisting of five headteachers and 71 teachers formed the sample size as indicated in Table 3.1.

**Table 3.1: Census Sampling of the Population**

School	Headteacher	Teachers	No. Sampled
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Manhyia M/A JHS,	1	15	16
Ampabame M/A JHS	1	14	15
Adadietem M/A JHS	1	12	13
Boankra M/A JHS	1	14	15
Besease M/A JHS	1	16	17
<b>Total</b>	<b>5</b>	<b>71</b>	<b>76</b>

Source: Researcher's Construct. August, 2020

### 3.4 Instrumentation

A research instrument is a specific mechanism or strategy, the researcher uses to collect, manipulate, or interpret data (Creswell, 2012). According to White (2005), questionnaire is an instrument that is designed to collect data for decision making in research.

The researcher used closed ended questionnaire as the data collection instrument for the study. The close-ended questionnaire was meant to assist respondents to provide uniformity of response and to enable more information to be gathered. They also provide easier and accurate analysis of the data to obtain precise interpretation of the responses and a high degree of respondent's objectivity and also enhance easy processing of responses (Bell, 2008). A questionnaire is cost effective and less time consuming as compared to other instruments. One disadvantage of questionnaire is how to retrieve all the questionnaires distributed.

The questionnaires were divided into section A, B, C and D. The section A was made up of demographic data about the respondents and the section B, C and D sought information about the effect of family and income level on children academic performance in Ejisu Municipality. The effects of family income on children's academic achievement

in Ejisu Municipality. Items in the questionnaires were framed in close ended fashion. It was a 5-point Likert scale (1= Strongly Disagree, 2 = Disagree, 3 = Uncertain, 4= Agree, and 5 = Strongly Agree) in which higher score indicate more perceived positive responses.

The questionnaire helped in collecting the needed data for the study in the quest to explore assessing the impact of demographic on children's educational performance in the Ejisu Municipality. The researcher was able to retrieve all the questionnaires distributed. The researcher personally administered the entire questionnaire to the respondents.

### **3.5 Pilot-testing of the Instrument**

The purpose for pre-testing is to get the bugs out of the instrument so that the respondents in the study area will experience no difficulties in completing the questionnaire and also enable one to have preliminary analysis to see whether the wording and format of questions is appropriate (Bell, 2008).

To determine validity and reliability, the questionnaire was piloted at Asotwe JHS and Ejisu JHS. The purpose of the pre-test was to enable the researcher to make necessary changes to items which may be inappropriate, determine the level of ambiguity of the questions for corrections and determine the percentage of responses. Ambiguous items were modified and inappropriate items, deleted or modified. Mugenda and Mugenda (2003), asserts that reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials. The responses from the thirty (30) respondents were analyzed using the Cronbach alpha to calculate reliability for the instrument. This gave a coefficient of 0.94 for the 30 items, (N=30) which indicates that the items form questionnaires (instrument) had a good internal consistency (reliability).

### **3.6 Validity Test**

Polit and Hungler (1999) defines validity as the degree to which an instrument measures what it is supposed to be measuring. Thus, the validity of an instrument is the accuracy to which it measures, what it is supposed to measure or fulfills the function it was designed to fulfill. The validity of the instruments was derived when researcher had submitted the questionnaire to her research supervisor for vetting. The necessary corrections and modifications were made before they were finally administered to the respondents. This helped to identify the factors such as weaknesses, inconsistencies, duplication and ambiguities in the questionnaire for their modifications and deletions.

### **3.7 Data Collection Procedure**

With a letter of introduction from the Head of Department of Educational Leadership at the University of Education-Winneba, Kumasi Campus. The data used in the study were collected personally by the researcher. In order to collect data from the selected schools, permission was given from the Ejisu Municipal Assembly. The head teacher and teachers were briefed about the purpose of the study. They were thereafter given the questionnaire to fill. The researcher was able to establish a good rapport with the respondent and 76 questionnaires were distributed. 76 answered questionnaires representing 100% of the distributed questionnaires were retrieved. The researcher visited the school after a grace period of two weeks to collect the questionnaire.



### **3.8 Data Analysis**

Polit and Hugler (1999), contend that before an analysis can begin, the researcher must develop what is known as a coding scheme, which is a plan for organizing responses into a form amenable to analysis. Data collection from these instruments were edited, evaluated and classified according to the specific research questions to ensure their completeness, consistency, accuracy and relevance. Quantitative data from the questionnaire were coded and entered into the Statistical Package for Solutions and Services (SPSS version 21) for onward analysis using descriptive statistics such as mean, standard deviation, frequencies and percentages and presented in tables.

### **3.9 Ethical Consideration**

The respondents took part in the study on their own freewill and they were not in any way coerced to participate. The intent and purpose of the study was personally explained to the respondents, although the questionnaire itself contained a request for respondents' cooperation in providing the required information for the study. The respondents were further assured of confidentiality of the information provided and that the study findings were to be used for academic purposes only. Respondents were further assured of their personal protection and that they could accept or refuse to participate in the study if they so wish. They were also assured that there were no costs involved.



## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.0 Introduction

This chapter clearly depicts the data that was gathered from the respondents on the assessing the effects of family and income levels on children educational Boankrah circuit of Ejisu Municipality of the Ashanti Region. A sample size of seventy – six (76) headteachers and teachers were chosen, from some selected schools in the Boankrah circuit of Ejisu Municipality of the Ashanti Region. The analysis of data is in two parts. The first part deals with the demographic information of the respondents, while the second part deals with analysis of the main data related to the research question.

#### 4.1 Demographic Characteristics of Respondents

This section shows the gender of the respondents, age bracket, and highest professional qualification attained, the duration spent in Ghana Education Service and their current ranks.

##### 4.1.2 Gender of respondents

Respondents were asked to state their gender and the following data was obtained.

**Table 4.1 Gender of respondents**

Gender	Frequency	Percentage (%)
Male	39	51.8
Female	37	48.2
Total	76	100

Source: Field Survey, 2020

From Table 4.1, it can be noted that the male teacher form the majority by 30 (53.3%) while female are represented by 26(46.7%). This implies that Ghana Education Service is not biased in its employment but rather male dominating over their female counterparts.

#### 4.2.2 Age of respondents

The results regarding the age distribution of the respondents are presented in Figure 4.2.

**Table 4.2 Age of respondents**

Age	Frequency	Percentage (%)
Below 25	17	23
26-35	39	51
36-45	14	18
46-55	6	8
Above 55	-	-
Total	76	100

Source: Field Survey, 2020

From table 4.2, About three-quarters (76.3%) of the respondents age between 25 and 45 years making the work force of the sub metro education service a youthful one. Just about a tenth (9.8%) and 6% were younger than 25 years and above 55 years respectively. The finding also gives an indication that all the sampled respondents were grown-ups and experience enough to partake in a credible research endeavour such as this study. Thus, they were likely to provide the needed information.

#### 4.1.3 Marital Status of the Respondents

The results regarding the marital status of the respondents are presented in the Figure 4.3

**Table 4.3 Marital Status of the Respondents**

Marital Status	Frequency	Percentage (%)
Single	14	18
Married	46	60.7
Divorce	16	21.3
Total	76	100

Source: Field Survey, 2020

As shown in table 4.3 distribution of respondents based on their marital status indicate that majority 46 (60.7%) of the study respondents were married. Respondents who revealed themselves as single or Divorce in terms of marital status were in the minority 30(39.3%). The findings revealed that majority of the respondents were married.

#### 4.1.4 Academic Qualification of Respondents

The results regarding the academic qualification of the respondents are presented in the Figure 4.5

**Table 4.4 Academic Qualification of Respondents**

Academic qualification	Frequency	Percentage (%)
Masters	8	10
Degree	52	68.7
Diploma	16	21.3
Total	76	100

Source: Field Survey, 2020

Table 4.4 indicates that in terms of the academic qualification of respondents, most respondents 52(68.7%) had some form of tertiary education (Bachelor Degree), and the remaining 16(21.3%) had postgraduate degree education and the remaining 8(10%) have

had Diploma. This finding is indicative of the high level of education amongst the respondents.

#### 4.1.5 Professional Rank of Respondents

The responses with regard to the professional rank or qualification of the respondents are presented in Table 4.5.

**Table 4.5 Professional Rank of Respondents**

Professional Rank	Frequency	Percentage (%)
Deputy Director	8	10
Assistant Director 1	15	20
Assistant Director 11	16	21.2
Principal Superintendent	22	28.4
Senior Superintendent 1	9	12.4
Senior Superintend 11	6	8
Total	76	100

Source: Field Survey, 2020

From the field survey above, greatest number of workers has attained higher ranks such as Deputy Director, Assistant Director I & II and Principal Superintendent accounted for (67.6)% whilst the rest of the ranks were only (32.4)%. It seems to suggest that greater number of GES workers is occupying the highest ranks in the service which indicates that greater proportion of workers had stay with the service for some time to reach those higher ranks.

#### 4.1 .6 Experience of Respondents

The results regarding the experience of respondents of the respondents are presented in the Table 4.6.

**Table 4.6 Experience of Respondents**

Experience with the GES`	Frequency	Percentage (%)
5 years and below	26	34.4
6-10	18	23.3
11-15	10	13.3
16-20	13	17.8
21 and above	9	11.2
Total	76	100

Source: Field Survey, 2020

Table 4.6 revealed that 26(34.4%) had work with the service between 5 years and below, 18 (23.3%) had worked 6 to10 years, 13(17.8%) between 16 to 20 years, 10(13.3%) have worked with GES between 11 to 15 years and 9(11.2%) been the least between 21 years and above as indicated by the table 4.4 below. It further indicates that higher proportion of GES workers had spent much time with the service and had acquired enough experience to deliver quality teaching and learning.

#### **4.1.7 Family average net income per month (All in GH¢)**

The results regarding the experience of respondents of the respondents are presented in the Table 4.7.

#### **4.7 Family Average Net Income per Month (All in GH¢)**

Net income per month (All in GH¢)	Frequency	Percentage (%)
501- 1000	8	10.0
1001 – 1500	25	33.3
1501 – 2000	26	35.6
2001 - 2500	8	10.0
2501- 3000	8	10.0
Above 3000	1	1.1
Total	76	100

Source: Field Survey, 2020

From table 4.7. Over 88% (88.5%) of the teachers earn more than GH¢1000.00 with only 2.6% who end less than GH¢500.00. This implies that most children of high income-earning parents are exposed to modern technological learning facilities such as mobile phones, computer, calculators, television, and other sophisticated learning gadgets earlier in life which perhaps accounts for their higher academic performances. Unfortunately, most children born to parents with low income do not have access to this learning equipment.

#### 4.2 The major sources of income among families

This research question sought to find out the major sources of income among families in the Boankrah circuit of Ejisu municipality of Ashanti Region. The results is presented in table 4.8.

**Table 4.8 Major source of income among families**

Major Sources of Income	Frequency	Percentage (%)
Salary / wages	40	53
relatives	3	4
Business	19	25
Bank loan	6	8
investment	8	10
Total	76	100

Source: Field Survey, 2020

Table 4.8 shows responses to the questionnaire instrument on sources of income for your child or children education. The study shows that 40(53%) of respondents' sources



of income for your child or children education were salary / wages. 3% (4) cited relatives, 19(25%) cited business, 6(8%) cited Bank Loan and remaining 8(10%) cited investment. Mayer (1997) also considers whether transitory income fluctuations have an impact on child educational outcomes. Leaving aside the question of measurement error, income at a point in time can be thought of as composed of transitory and permanent components. Therefore, in a regression of the relationship between income and education the income parameter will be a weighted-average of the coefficients that would be obtained if measures of permanent and transitory income could be entered into the model separately. A 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).

Some of the parents also revealed that, children from low income family find it difficult to claim higher in terms of academics. There are a large number of possible routes by which the children of low-income families do less well at school; some of these are causal and others are non-causal. It is the impact of the causal factors that we seek to identify Becker and Tomes, (1986).

#### 4.2.1 Children overall performance at school

**Table 4.9 Children overall performance at school**

performance	Frequency	Percentage (%)
Excellent	30	40
Very Good	34	45
average	12	15
below average	0	0
Total	76	100

Source: Field Survey, 2020

Table 4.9 shows responses to the questionnaire instrument how you would describe (study child's) overall performance at school. The study shows that 30(40%) of respondents describe child or children overall performance at school as excellent. 34(45%) cited very good, and significant 12(15%) cited average. Arrow, (1973) and Mechtenberg, (2006). Stated that, focus on family-size effects on the school achievement of primary school pupils rather than on later – and arguably cruder measures of – educational outcomes (e.g. educational attainment, grade retention, private school attendance, etc.). This is of interest because difficulty in early school years may have consequences on later educational experiences, even if they do not affect school attainment per se. Second, we investigate whether teachers exhibit stereotypes in relation to family size either by overestimating or underestimating family-size effects.<sup>1</sup> This is important because if teachers have negative stereotypes, this can lead pupils to exert lower efforts and achieve lower outcomes in a 'self-fulfilling prophecy'.

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#### 4.2.3 The extent salary / wages influence child’s academic performance

The study sought to establish the extent salary / wages influence child’s academic performance. The result is presented in table 4.10

**Table 4.10 salary / wages influence child’s academic performance**

Variable	Frequency	Percentage (%)
Very Important	49	64.7
Important	27	34.3
Less Important	0	0
Not Important	0	0
Total	76	100

Source: Field Survey, 2020

Table 4.10 shows responses to the questionnaire instrument on to extent do your salary/ income influences your ideal family size. The study shows that 37.8% of respondents cited very important, 32.2 % cited important, 22.2% cited less important and

the remaining 7.8 % cited not important. The finding commensurate to Mayer (2000), a casual observation is that the children of affluent parents are more likely to succeed in life than the children of poor parents probably because the rich parents spend more than poor parents on their children and these “investments” lead to better outcomes for their children. If the situation is correct, the author also suggested that government can improve the life chances of poor children by providing families with the means to make the investments or by providing the investments directly in the form of schooling, health care, and other human capital inputs. It is not out of place to imagine that parental socio-economic background can have possible effects on the academic achievement of children in school. When parents are financially capacitated, and also give moral support to the children by guiding their reading at home, the students perform better than their counterparts. Although it has been argued that the most accurate predictor of students’ achievement.

#### 4.2.4 Where do you want to educate your your child (ren)?

The study sought to establish the type of school respondents enroll their children and the result is presented in table 4.11.

**Table 4.11 Type of school**

Type of school	Frequency	Percentage (%)
Private school	55	72
Public school	21	28
Total	76	100

Source: Field Survey, 2020

Table 11 shows responses to the questionnaire instrument on the type of school respondents wish to educate their child or children. The study reveals that 55(72%) representing majority of the respondents were interested in enrolling children in private school and the significant 28(28%) cited public schools. This is an indication to the fact majority of the respondents were interesting in enrolling their children in the private school at the basic level. In one of the most thorough studies to date, Conley (2004) uses U. S. Census data from 1980 and 1990 to examine the effect of family size on private school attendance and the probability a child is “held back.” To identify the causal effect of family size, he uses the idea that parents who have two same-sex children are more likely to have a third child than equivalent parents with two opposite sex children.<sup>11</sup> Using this as his instrument, Conley finds a significant negative effect of family size on private school attendance and an insignificant positive effect on whether a child is held back; when he analyzes the effects separately for first-born children and later children, he finds the effects are significant only for later-born children. A major advantage to private education is that your child will likely be challenged to a higher academic standard. Private schools can be more academically rigorous than public schools, and private school students may have to meet more criteria to keep up their grade point averages. Private high schools typically have more demanding graduation requirements than do public high schools. Compared with public schools, private schools required more coursework (in 4-year high school programs).” More can be expected of private school students in terms of quality of work, course workload, and special requirements such as community service or Arts participation. In some schools, what would normally be considered extracurricular

activities, are prerequisites for graduation, which ultimately round out students' high school experience.

The push to meet this higher standard often results in a greater level of student performance. In a recent NAEP report, it was found that “Students in private schools scored significantly above the national average in grades four, eight, and twelve. As the report put it, ‘Performance results in 2002 show that, at all three grades, students who attended nonpublic schools had higher average writing scores than students who attended public schools.’” In general, a student given the opportunity to attend a private school will most likely reach a higher level of academic achievement.

#### 4.2.5 The kind of educational insurance policy for your child (ren)

The study sought to find out the kind of educational insurance policy do you have for your child (ren)

**Table 4.12 Kind of Educational Insurance Policy**

Kind of educational insurance policy	Frequency	Percentage (%)
Endowment policy	42	55
investment – linked policy	34	45
Total	76	100

Source: Field Survey, 2020

Table 4.12 shows responses to the questionnaire instrument on which kind of educational insurance policy do you have for your child (ren). The study shows that 65.6% of respondents said endowment policy and 34.4% cited investment – linked policy. The findings show that majority of the respondents invest in endowment policy towards the education of their wards. One major benefit of life insurance is to ensure the future

wellbeing of our loved ones. Children are the most vulnerable when unfortunate events occur since they do not have the capacity to financially support themselves. Failing to prepare for your child's educational future, it goes on to affect important aspects of their lives such as their education. Various situations have disrupted the schooling of many children, such as the loss of the breadwinner in a family. Unforeseen events could place the dreams of a loved one on halt, this makes it is necessary to seek measures that would prevent and protect their dreams even if the worst were to happen. In a society where education is the first step out of ignorance and the glimmer of hope out of poverty. Education is something every parent should endeavour to secure for their child at all cost. This is why children education insurance is important. The plan serves dual benefits of investment and insurance (Schultz, 2005). It takes care of the funding that goes into children's education and it covers from primary levels to tertiary. Unforeseen events are never predictable, in the case of a disability or the worst-case scenario (death). The insurance policy covers for your child's tuition. Failing to prepare for your child's education could prevent them from reaching and maximizing their full potential. Outcomes as such are avoidable with children education Insurance. It is important to note the rising costs of education and how important children education insurance will help relieve the burden, knowing your child's tuition will be well taken care of even after you're gone gives you an unusual kind of peace of mind.

#### **4.3 How family size and income level influence children educational performance**

The researcher asked the respondents to rate their agreement or disagreement on how family size and income level influence children educational performance in the

Boankrah Circuit of the Ejisu Municipality of the Ashanti Region. The result is shown in Table 4.13.

**Table 4.13 How family size and income level influence children educational performance**

<b>Statement</b>	<b>SD (%)</b>	<b>D(%)</b>	<b>N(%)</b>	<b>A(%)</b>	<b>SA(%)</b>
I can afford to pay my children school fees no matter the size of the family	1(2)	8(10)	6(8)	27(35)	34(45)
Because of my family size cannot afford to enroll their children in private schools where student learn better than the public schools	3(4)	6(8)	3(5)	31(40)	33(43)
The size of my family are not affect the quality of education I want to give to my children	5(7)	8(10)	8(10)	28(37)	27(35)
Because of the large family size I cannot adequately cater for the educational needs of my children and that affect the quality of their children	1(2)	6(8)	3(4)	27(36)	39(50)
Smaller family size has been linked with higher academic achievement.	2(3)	8(10)	5(7)	27(35)	34(45)
Students with fewer siblings are likely to receive more parental attention and have more access to resources than students from large families.	3(5)	7(9)	12(16)	23(30)	31(40)
Students with large families attain less school on the average than students with fewer brothers and sisters.	6(8)	7(9)	2(3)	33(43)	28(37)
Students from small family size at all social levels tend to perform better in intelligence test and at school.	3(5)	4(6)	0(0)	29(37)	40(52)

Source: Field Survey, 2020

Table 4.13 shows that 34(45%) of the respondents strongly agreed that I can afford to pay my children school fees no matter the size of the family was considered as How family size and income level influence children educational performance, 27(35%) agreed,



6(8%) were neutral while 8(10%) disagreed and a significant 1(2%) were strongly disagreed. This implies that if parents pay their children's school fees early enough, it assists the schools in providing some kind of quality education and manageability". It is also equally important for parents to get actively involved in the activities of the school to overcome these financial woes. The findings of the study was in line with (Clark, & Latshaw, 2012) who believe that Parents need to realise that most of the schools in Chatsworth are classified as quintile five schools. This means that these schools receive the least amount of funding per pupil as opposed to quintile 1-3 schools. The per capita funding per pupil is approximately R200-00 per child. This funding is quickly consumed by the ever increasing costs of lights, water, telephone and maintenance costs of the school. Schools have to also budget for extra staff, stationery, purchase/rental of photocopier and, insurance premiums, etc. At most schools these departmental funds last about a term. Where does the additional money come from? Only from school fees, if they are paid.

Parents should be responsible enough to discuss an acceptable payment plan with the school governing body to ensure that their child's school fees are settled as early as possible so that the school can afford their monthly expenses. Mr Vee Gani, chairman of the Parent Association of KZN, said, "The budget given by the Department of Education is extremely low and is not enough to cater for the monthly expenses of the school. Fundraising is a challenge in these tough socio-economic times. However, if parents pay their children's school fees early enough, it assists the schools in providing some kind of quality education and manageability".

Table 4.13 shows that 33(43%) of the respondents strongly agreed that because of my family size cannot afford to enroll their children in private schools where student learn better than the public schools, 31(40%) agreed, 3(5%) were neutral while 6(8%) disagreed and a significant 3(4%) were strongly disagreed. Again, 27(35%) of the respondents agreed that size of my family is not affect the quality of education I want to give to my children, 28(37%) strongly agreed, 8(10%) were neutral while 8(10%) disagreed and a significant 5(7%) were strongly disagreed. The study support the idea of 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.

Table 4.13 shows that 39(50%) of the respondents strongly agreed that Because of the large family size I cannot adequately cater for the educational needs of my children and that affect the quality of their children was How family size and income level influence children educational performance, 27(36%) agreed, 3(4%) were neutral while 6(8%) disagreed and a significant 1(2%) were strongly disagreed. This implies that family

Table 4.13 shows that 34(45%) of the respondents strongly agreed that Smaller family size has been linked with higher academic achievement was How family size and income level influence children educational performance, 27(35%) agreed, 5(7%) were neutral while 8(10%) disagreed and a significant 2(3%) were strongly disagreed.

Table 4.13 shows that 31(40%) of the respondents strongly agreed that Students with fewer siblings are likely to receive more parental attention and have more access to resources than students from large families was how family size and income level influence children educational performance, 23(30%) agreed, 12(16%) were neutral while 7(9%) disagreed and a significant 3(5%) were strongly disagreed.

Table 4.13 shows that 33(43%) of the respondents agreed that Students with large families attain less school on the average than students with fewer brothers and sisters was how family size and income level influence children educational performance, 28(37%) strongly agreed, 2(3%) were neutral while 7(9%) disagreed and a significant 6(8%) were strongly disagreed.

Table 4.13 shows that 40(52%) of the respondents strongly agreed that Students from small family size at all social levels tend to perform better in intelligence test and at school was how family size and income level influence children educational performance, 29(37%) agreed, 3(5%), while 4(6%) disagreed and the remaining 3(5%) were strongly disagreed. The finding was in line with 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 & 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).

#### **4.4 The significances of family policy on child's education**

The third research question intended to establish significances of family policy on child's education in the Boankrah Circuit of the Ejisu Municipality of the Ashanti Region. The responses are presented in Table 4.14.

**Table 4.14 The significances of family policy on child’s education**

<b>statement</b>	<b>SD (%)</b>	<b>D(%)</b>	<b>N(%)</b>	<b>A(%)</b>	<b>SA(%)</b>	<b>Total</b>
Allow you to secure your ability to pay for your children's education – whether you are present or not.	2(3)	3(4)	8(10)	22(29)	41(54)	76
It lays the foundation for their bright future	1(2)	8(10)	7(9)	21(28)	39(51)	76
It is the affordable way to open up a world of opportunities for your children	3(4)	5(6)	14(19)	16(21)	38(50)	76
It improves higher educational aspirations of children	1(2)	9(12)	11(15)	18(23)	37(48)	76
It determines which of the children to education in terms of gender	1(2)	2(3)	8(11)	28(37)	36(47)	76
It is an indication of positive or negative attitude towards children’s education.	8(10)	10(14)	14(18)	21(28)	23(30)	76
It shows the commitment to children education	2(3)	3(4)	8(10)	22(29)	41(54)	76
It determines the desire to cater for the children educational needs	1(2)	8(10)	7(9)	21(28)	39(51)	76

Source: Field Survey, 2020

Table 4.14 shows that 41 (54%) of the respondents strongly agreed that family policy allow parents to secure the ability to pay for children's education – whether they are present or not was significances of family policy on child’s education, 22 (29%) agreed, 8(10%) were neutral while 3 (3%) disagreed and the remaining 2(3%) were strongly disagree. This implies that Parents' assessment of ability to pay for college are likely to influence their investments in a child's education, and may in turn affect the child's educational commitment and attainment. These potential outcomes lead us to investigate what accounts for parents' assessment.

Again, 39(51%) of the respondents strongly agreed that family policy lays the foundation for their bright future was noticed as significances of family policy on child's education, 21(28%), 7(9%) were neutral, 8(10%) disagreed and 1(2%) strongly disagreed respectively. the findings of the study showed that family policy on child's education

Also, 38 (50%) of the respondents strongly agreed that it is the affordable way to open up a world of opportunities for your children was of major significances of family policy on child's education, 16(21%) agreed, a significant 14(19%) were neutral, 5(6%) disagreed while 3(4%) strongly disagreed. The finding support

Again, 37(48%) of the respondents strongly agreed that It improves higher educational aspirations of children was significances of family policy on child's education, 18(23%), 11(15%) were neutral, 9(12%) disagreed and 1(2%) strongly disagreed respectively.

Again, 36(47%) of the respondents strongly agreed It determines which of the children to education in terms of gender was significances of family policy on child's education, 28(37%), 8(11%) were neutral , 2(3%) disagreed and 1(2%) strongly disagreed respectively

Again, 41(30%) of the respondents strongly agreed that It shows the commitment to children education was significances of family policy on child's education, 21(28%) , 14(18%) were neutral , 10(14%) disagreed and 8(10%) strongly disagreed respectively. Again, 39(51%) of the respondents strongly agreed that It determines the desire to cater for the children educational needs was significances of family policy on

child's education, 21(28%) , 7(9%) were neutral , 8(10%) disagreed and 1(2%) strongly disagreed respectively.

Finally, 23(30%) of the respondents strongly agreed that It determines the desire to cater for the children educational needs was significances of family policy on child's education, 21(28%), 14(18%) were neutral, 10(14%) disagreed and 8(10%) strongly disagreed respectively.

#### **4.5 The effects of family income children educational performance**

Research question two sought to find out the effects of family income children educational performance in the Boankrah Circuit of the Ejisu Municipality of the Ashanti Region. The study identified factors such as whether money or no money i always perform better in class, lack of adequate financial support affect my regular school attendance and undermines my academic performance, the inability to secure my school needs undermines my educational performance, family income level affects my academic performance , when my family income improves, my monthly stipend/allowance also improves, my performance improves when my family income also improves, the inability to get food affect my concentration in class, my parent's ability to promote my educational needs motivate me to lean, parental income is important if high academic performance is to be achieved, and students from low income families attain less education than students from high income families as the effects of family income on children educational performance. The responses are presented in Table 4.15

**Table 4.15 the effects of family income children educational performance**

<b>Statement</b>	<b>SD (%)</b>	<b>D(%)</b>	<b>N(%)</b>	<b>A(%)</b>	<b>SA(%)</b>	<b>Total</b>
Whether money or no money I always perform better in class	0(0)	5(7)	8(10)	22(29)	41(54)	76
Lack of adequate financial support affect my regular school attendance and undermines my academic performance.	2(3)	2(3)	8(10)	24(31)	40(53)	76
The inability to secure my school needs undermines my educational performance	1(2)	8(10)	9(12)	19(25)	39(51)	76
Family income level affects my academic performance	3(4)	5(6)	14(19)	16(21)	38(50)	76
When my family income improves, my monthly stipend/allowance also improves.	3(4)	5(6)	3(4)	27(36)	38(50)	76
My performance improves when my family income also improves.	1(2)	9(12)	11(15)	18(23)	37(48)	76
The inability to get food affect my concentration in class	1(2)	2(3)	9(11)	28(37)	36(47)	76
My parent’s ability to promote my educational needs motivate me to lean	2(3)	3(4)	8(10)	20(27)	43(56)	76
Parental income is important if high academic performance is to be achieved	4(5)	3(4)	10(14)	22(29)	37(48)	76
Students from low income families attain less education than students from high income families	2(3)	3(4)	8(10)	22(29)	41(54)	76

Source: Field Survey, 2020

Table 4. 15 shows that 41(54%) of the respondents strongly agreed that Whether money or no money I always perform better in class was effects of family income children educational performance 22(29%) agreed, 8(10%) were neutral while 5(7%) disagreed.

Table 14 indicates that 40(53%) of the respondents strongly agreed that Lack of adequate financial support affect my regular school attendance and undermines my



academic performance was effects of family income children educational performance 24(31%) agreed, 8(10%) were neutral while 2(3%) disagreed and a significant 1(2%) were strongly disagreed.

Table 4.15 shows that 39(51%) of the respondents strongly agreed that the inability to secure my school needs undermines my educational performance was effects of family income children educational performance, 19(25%) agreed, 9(12%) were neutral while 5(6%) disagreed and a significant 1(2%) were strongly disagreed.

Table 4.15 shows that 38(50%) of the respondents strongly agreed that Family income level affects my academic performance was effects of family income children educational performance, 16(21%) agreed, 14(19%) were neutral while 5(6%) disagreed and a significant 3(4%) were strongly disagreed.

Table 4.15 shows that 38(50%) of the respondents strongly agreed that When my family income improves, my monthly stipend/allowance also improves was one effects of family income children educational performance, 27(36%) agreed, 3(4%) were neutral while 5(6%) disagreed and a significant 3(4%) were strongly disagreed

Table 4.15 shows that 37(48%) of the respondents strongly agreed that my performance improves when my family income also improves was one effects of family income children educational performance, 18(23%) agreed, 11(15%) were neutral while 9(12%) disagreed and a significant 1(2%) were strongly disagreed.

Table 4.15 shows that 36(47%) of the respondents strongly agreed that the inability to get food affect my concentration in class was effects of family income children

educational performance, 28(37%) agreed, 9(11%) were neutral while 2(3%) disagreed and a significant 1(2%) were strongly disagreed.

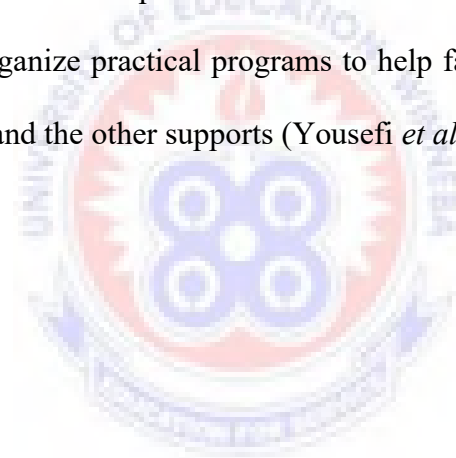
Table 4.15 shows that 43(56%) of the respondents strongly agreed that my parent's ability to promote my educational needs motivate me to learn was effects of family income children educational performance, 20(27%) agreed, 8(10%) were neutral while 3(4%) disagreed and a significant 2(3%) were strongly disagreed.

Table 4.15 shows that 37(48%) of the respondents strongly agreed that Parental income is important if high academic performance is to be achieved was one of the effects of family income children educational performance, 22(29%) agreed, 10(14%) were neutral while 3(4%) disagreed and a significant 4(5%) were strongly disagreed.

Table 4.15 shows that 41(54%) of the respondents strongly agreed that Students from low income families attain less education than students from high income families was one of the effects of family income children educational performance, 22(29%) agreed, 8(10%) were neutral while 3(4%) disagreed and a significant 2(3%) were strongly disagreed. The above findings were in with 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).



## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter consists of the summary of the findings of the study, conclusions, recommendations and suggestions for further research study.

#### 5.1 Summary of the Findings

The purpose of the study was to assessing the effects of family and income levels on children educational Boankrah circuit of Ejisu Municipality of the Ashanti Region. The objectives of the study were to determine the major sources of income among families; to determine the extent to which family size and income level influence children educational performance; to determine the significance of family policy on child's education and to determine the effects of family income children educational performance.

Descriptive survey design was used for the study. The target population for this study was 76, consisting of five head teachers and 71 teachers in the five public Junior High Schools in the Boankrah Circuit in the Ejisu Municipality. Census sampling was used to select all the 76 head teachers and teachers in the five public Junior High Schools in the Boankrah Circuit of the Ejisu Municipality for the study. The researcher used closed ended questionnaire as the data collection instrument for the study.

##### 5.1.2 The major sources of income among

The study shows that 40(53%) of respondents' sources of income for your child or children education were salary / wages. 3(4%) cited relatives, 19(25%) cited business, 6(8%) cited Bank Loan and remaining 8(10%) cited investment. The responses to the

questionnaire instrument on to extent do your salary/income influences your ideal family size. The study shows that 37.8% of respondents cited very important, 32.2 % cited important, 22.2% cited less important and the remaining 7.8 % cited not important.

### **5.1.3 Family size and income level influence children educational performance**

The study revealed that 63% to 87% of the teachers agreed the statement I can afford to pay my children school fees no matter the size of the family, Because of my family size cannot afford to enroll their children in private schools where student learn better than the public schools, The size of my family are not affect the quality of education I want to give to my children, Because of the large family size I cannot adequately cater for the educational needs of my children and that affect the quality of their children, Smaller family size has been linked with higher academic achievement, Students with fewer siblings are likely to receive more parental attention and have more access to resources than students from large families, Students with large families attain less school on the average than students with fewer brothers and sisters, Students from small family size at all social levels tend to perform better in intelligence test and at school were how family size and income level influence children educational performance.

### **5.1.3 The significances of family policy on child's education**

The study revealed that 63% to 87% of the respondents agreed to the statement, allow you to secure your ability to pay for your children's education – whether you are present or not, it lays the foundation for their bright future, it is the affordable way to open up a world of opportunities for your children, it improves higher educational aspirations of children, it determines which of the children to education in terms of gender, it is an indication of positive or negative attitude towards children's education, it shows the

commitment to children education and it determines the desire to cater for the children educational needs were the significances of family policy on child's education.

#### **5.1.4 The effects of family income on children educational performance**

The study revealed that 60% to 85% of the respondents agreed that factors such as whether money or no money I always perform better in class, lack of adequate financial support affect my regular school attendance and undermines my academic performance, the inability to secure my school needs undermines my educational performance, family income level affects my academic performance , when my family income improves, my monthly stipend/allowance also improves, my performance improves when my family income also improves, the inability to get food affect my concentration in class, my parent's ability to promote my educational needs motivate me to lean, parental income is important if high academic performance is to be achieved, and students from low income families attain less education than students from high income families as the effects of family income on children educational performance.

#### **5.4 Conclusion**

This study was research into how family size influence children academic achievement, find out the significance of family policy on child's education and the effects of family income children academic achievement at Boankrah Circuit in the Ejisu Municipality.

The study therefore concludes that source of income for most of the participant were salary and wages, business, Salary / wages, donation from relatives, Bank loan and

investment. However, Students with large families attain less school on the average than students with fewer brothers and sisters, Students from small family size at all social levels tend to perform better in intelligence test and at school were how family size and income level influence children educational performance.

Finally, family policy improves higher educational aspirations of children and shows the commitment to children education and it determines the desire to cater for the children educational needs.

### **5.3 Recommendations**

1. Parents need to go back to the basics of “providing a warm, supportive home environment that supports exploration and self-directed, autonomous behavior, [and that] will greatly increase the chances of having an academically successful child.
2. Incentives such as lower school fees, should be extended to families to motivate them to educate their children.
3. Smaller family sizes as well as larger family sizes have their resultant socio-economic implications for the Boankrah Circuit in Ejisu Municipality but the obvious is its negativities in respect of a larger family size. This definitely culminates into poor health, lower incomes, lower social life as well as economic life.
4. School authorities must remove any form of discrimination and biases relating to socio-economic status of students. They must let the students enjoy the levelled-field of learning process and must also encourage them to participate in all

academic activities. Provision of counselling and inspiration to less-privileged students must be encouraged.

5. 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.

### **5.5 Areas for Further Research**

The limitations of this study offer opportunities for future research. The ability to generalize the results of this study could be emphasized further by replicating the study using a broader sample and employing other complex methodology that allays suspicion or fear. Focus group discussions, participant observation method and in-depth assessment of various documents could be used.

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## **APPENDIX**

### **Appendix A: Questionnaire**

**DEPARTMENT OF EDUCATIONAL LEADERSHIP**

**UNIVERSITY OF EDUCATION, WENNIBA**

**(KUMASI CAMPUS)**

I write to solicit your help in a study on the above topic by asking you to complete a short questionnaire. This questionnaire is to collect information that would be used to assess the influence of family size and income on children's educational achievements using Boankrah Circuit in the Ejisu Municipality. Please be assured that your responses will be used solely for the purpose of this study. You will not be identified in any part of the study.

Your participation in the study is greatly appreciated. Thank you.

Please tick your response in the appropriate space.

Please tick [] in the appropriate box provided to indicate your answers.

1. What is your gender?

- a) Male
- b) Female

2. What is your age ?

- a) Below 25
- b) 26-35
- c) 36-45
- d) 46-55
- e) Above 55

3. What is your marital Status:

- a) Single
- b) Married
- c) Divorce

4. What is your academic qualification?

- a) Bachelor Degree
- b) Masters
- c) Diploma

5. What is your present rank in the GES?

- a) Assistant Director I
- b) Assistant Director II
- c) Principal Superintendent
- d) Senior Superintendent I



- e) Senior Superintend II                    [   ]
6.     How long have you been worked in your present school?
- a) 5 years and below            [   ]
- b) 6-10                                    [   ]
- c) 11-15                                  [   ]
- d) 16-20                                 [   ]
- e) 21 and above                    [   ]
7.     What is your family average net income per month (All in GH¢)?
- a) 501- 1000                    [   ]
- b) 1001 – 1500                   [   ]
- c) 1501 – 2000                   [   ]
- d) 2001 - 2500                   [   ]
- e) 2501- 3000                    [   ]
- f) 3001 – 3500                   [   ]



**Section B**

8. What are the sources of income for your child or children education?
- a) Salary / wages                    [   ]
- b) relatives                                [   ]
- c) Business                                [   ]
- d) Bank loan                                [   ]
- e) investment                                [   ]
9. “How would you describe (study child’s) overall performance at school)?
- a) Excellent                                [   ]
- b) above average;                        [   ]

- c) average [ ]  
 d) below average [ ]

Others please specify-----

10. To what extent does your salary/ income influence your ideal family size?

- a) Very Important [ ]  
 b) Important [ ]  
 c) Less Important [ ]  
 d) Not Important [ ]

11. Where do you want to educate your your child (ren)?

Private school ( ) public school ( )

12. Which kind of educational insurance policy do you have for your child (ren)?

Endowment policy ( ) investment – linked policy ( )

### SECTION B

#### How family size influence children academic performance

Please indicate how family size influence children academic achievement?

**1=strongly disagree; 2= disagree; 3= agree; 4= strongly agree**

No	Statement	1	2	3	4
13	I can afford to pay my children school fees no matter the size of the family				
14	Because of my family size cannot afford to enroll their children in private schools where student learn better than the public schools				
16	The size of my family are not affect the quality of examination I want to give to my children				
17	Because of the large family size I cannot adequately cater for the educational needs of my children and that affect the quality of their children				



18	Smaller family size has been linked with higher academic achievement.				
19	Students with fewer siblings are likely to receive more parental attention and have more access to resources than students from large families.				
20	Students with large families attain less school on the average than students with fewer brothers and sisters.				
21	Students from small family size at all social levels tend to perform better in intelligence test and at school.				

**SECTION C**

**Significance of family policy on child's education**

Please indicate the Significance of family policy on child's education?

**1=strongly disagree; 2= disagree, 3= uncertain; 4= agree; 5= strongly agree**

No	Significance of family policy	1	2	3	4	5
22	Allow you to secure your ability to pay for your children's education – whether you are present or not.					
23	It lays the foundation for their bright future					
24	It is the affordable way to open up a world of opportunities for your children					
25	It improves higher educational aspirations of children					
26	It determine which of the children to education in terms of gender					
27	It is an indication of positive or negative attitude towards children's education.					
28	It shows the commitment to children education					

29	It determines the desire to cater for the children educational needs					
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**SECTION D**

**The effects of family income on children’s academic performance**

Please indicate the **effects of family income children academic achievement?**

**1=strongly disagree; 2= disagree, 3= uncertain; 4= agree; 5= strongly agree**

No		1	2	3	4	5
30	Whether money or no money I always perform better in class					
31	Lack of adequate financial support affect my regular school attendance and undermines my academic performance.					
32	The inability to secure my school needs undermines my educational performance					
33	Family income level affects my academic performance					
34	When my family income improves, my monthly stipend/allowance also improves.					
35	My performance improves when my family income also improves.					
36	The inability to get food affect my concentration in class					
37	My parents ability to promote my educational needs motivate me to lean.					
38	Parental income is important if high academic performance is to be achieved					
39	Students from low income families attain less education than students from high income families					

