Relationship between Education and Wage differentials in Ghana:
A Case Study of Accra - a Suburb of greater Accra Region

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ABSTRACT
This study sought to find out the relationship between education and wages differentials and other factors that may account for the differences in wages among the various categories of workers as well as to determine factors that lead to investments in higher forms of education. The instrument employed for the investigation is mainly questionnaires. The research targeted a sample size of 100. The population considered was the labor force in Accra. However, considering the target group and how busy they are, resources and not having the luxury of time, we settled for a sample size of 100. The sampling technique employed was convenience sampling. The respondents were public and private sector workers. Pie charts, bar graphs, scatter diagrams and tables were employed to explain the pattern of some variables. Our findings showed that aside education, there were other factors that attributed to the existing wage differentials. Some of these factors include the sex of the worker, sector in which the worker works in, company policy, skills and working conditions. All these are significant causes of wage differentials.

Key words: Education, Wage differential, Convenience sampling, Greater Accra

INTRODUCTION
Education in the largest sense is any act of experience that has a formative effect on the mind, character, or physical ability of an individual. In its technical sense, education is the process by which society deliberately transmits its accumulated knowledge, skills and values from generation to another (Wikipedia, the free encyclopedia).

Indeed education develops the intellectual abilities of a person. Human beings possess a lot of potential abilities that can be enhanced through education and only proper education can pave the way and lead human beings to virtue (Khostinat, 2009). Education plays a central role in preparing individuals to enter the labor force as well as equipping them with the skills to engage in lifelong learning experiences. Educational attainment therefore raises ones income (Psacharopoulos, 1993).

Education plays a central role in the development of human capital. After finishing formal education, young people should be able to subsequently make a successful transition from school to work with the skills and knowledge they acquired. More specific skills can be acquired through training and experience on the job (UNECA, 2005). Education as an investment in human resource equips labor with the skills to make it more productive. A wage differential according to routledge dictionary of economics is the differences in employment income reflecting the segmented nature of the labor
market. The labor force has several structures – geographical, industrial, occupational, sexual and racial; which create corresponding wage differentials. In the case of developing countries, however, investigation of wage differentials has focused, firstly, on the contribution of human capital variables to earnings and secondly, on the facts that labor market is segmented along the lines of modern traditional sectors.

The labor market in Ghana is characterized by the dominance of agricultural and rural sector where economic activities are mostly organized on an informal basis. The public sector absorbs a higher proportion of the economically active population of Ghana than the private sector. In 1984, the public sector absorbed 63% of the labor force with the private sector taking the remaining 37%. It was also 54.7% as against 45.3% in the public and private sector respectively in 1998. In 2000, the public sector absorbed 51% of the labor force as compared to 49% of the private sector (Ghanaian Labour Market, GLSSIII and IV).

STATEMENT OF THE RESEARCH PROBLEM

The rationale for investing in human capital is that more skilled and educated labor force is more productive than a less educated one. Therefore, policymakers emphasize investment in human capital because they believe that, in general, it increases labor productivity. It is thus expected that labor with a relatively higher education should have higher productivity and a corresponding higher wage. However, there is not much evidence of this relationship in the African region, of which Ghana is no exception (Glewwe, 1996). Section 68 of the National Labor Law specifies that every worker shall receive equal pay for equal work without distinction of any kind. Although, the national labor law emphasizes equal pay for equal work, a critical observation of the Ghanaian labor market, specifically the Accra Metropolis reveals that this is not the reality on the ground. People with equal work do not receive the same wage. People with higher education are employed in areas where their wages are lower than others in the same establishment with a relatively lower education. There is also the presence of about 230,000 new job seekers annually (Wikipedia, the free encyclopedia). These new job seekers are mostly graduates from various tertiary institutions who have acquired various skills. Out of this lot the formal sector is capable of absorbing only 2% of the job seekers. As a result, most of them find themselves being unemployed and earning a lower wage than they should (Ghanaian Labor Market, Key Trends and Major Policy issues). The abundance of certain labor skills relative to the demand for these skills bids their wages down. This is also a major setback in the labor market. What accounts for the differences in wages; could this be as a result of the level of education? Could there also be a lower rate of return to investment in education? Are workers paid according to their human capital attributes or according to other characteristics? Is the relative availability of skills a cause or factor accounting for wage differentials? Thus the need for this study.

The main objectives of this study are:

1. to identify the relationship between education and wage differentials among workers in Ghana specifically Accra.
2. to determine the other factors that contribute to the differences in wages.
3. to determine factors that lead to investments in higher forms of education and
4. device policy interventions based on the findings.

This study looks at the formal education and how it affects human capital in terms of wage differentials. The effects of informal education are not considered in this study. The data covers a section of the private and public formal sectors in Accra metropolis. The analysis and conclusions are based on results from primary data samples.
LITERATURE REVIEW

CONCEPT OF WAGE DIFFERENTIALS

Wage differentials have to do with the differences in wages that accrue to various jobs and different groups of labor in the labor market. Research carried out by Slichter (1950) and Weiss (1966 cited in Ricaurte, 2009, pp.4) found that wage differentials among workers are a prevalent feature of labor market and these differentials subsist even after observable individual differences are taken into account. Characteristics such as education, age, and tenure on the workers’ side, and size, profitability, and sales on the firms’ side, play an important role in explaining wage differentials.

SCHOOL OF THOUGHT ON WAGE DIFFERENTIALS

THEORY OF EQUALISING DIFFERENCES

The traditional theory of wage differentials, first developed by Adam Smith, focuses on differences among occupations. It views the economy as a network of markets for particular occupations, which differ in training requirements, regularity of employment, pleasantness of work and other respects. Smith used his insight on equality of returns to explain why wage rates differed. Wage rates would be higher, he argued, for trades that were more difficult to learn because people would not be willing to learn if they were not compensated by a higher wage. His thought gave rise to the modern notion of human capital. Similarly, wage rates would also be higher for those who engaged in dirty or unsafe occupations such as coal mining and butchering; like the hangman, who performed odious jobs. In short, differences in work were compensated by differences in pay. Modern economist called Smith, insights the theory of compensating wage differentials or the theory of equalizing differences.

In his book “wealth of nations”, Adam Smith (1776) identifies wage differentials as the result of properties of certain jobs. Some jobs have negative traits and some employers find it necessary to pay higher wages to compensate workers for generally undesirable working conditions. Other employers can pay less for comparable work because conditions are more pleasant. Such properties include the agreeableness’s of the job where preferable working conditions will lead to individuals accept lower wages for their labor. Likewise unpleasant work will have a higher wage, ease for their employment. This has to do with the difficulty or time spent in learning the job. Labor who invest the time is being compensated for his additional effort with higher wages. This therefore presupposes that jobs that are easy to learn and require less time will attract lower wages, location. Jobs that are undesirable, more distant, or hard to reach locations also pay higher wages. Firms in cities that have high living costs, inhospitable climate and also high crime rates find it necessary to offer high wages to attract workers.

The consistency of work, degree of responsibility and the probability of success in a particular job or occupation will all determine whether wages for this occupation are going to be low or high and will therefore be a source of wage differentials.

TECHNOLOGICAL CHANGE AND CAPITAL-SKILL COMPLEMENTARITY HYPOTHESIS

Technological change is also a cause of wage differentials in the labor market. This is evident in the capital-skill complementarily hypothesis (Goldin and Katz, 1996) which asserts that skilled or more educated labor is more complementary with new technology or physical capital than is unskilled or less educated labor. Goldin and Katz (1996) argued that capital intensified technological changes which brought about a shift to batch and continuous – process methods, as well as the rise in purchased electricity, led to an increase in the relative demand for higher-skilled and educated workers. Reinforcing the shift in manufacturing was an increased demand for educated workers to sell, install, and service technologically-advanced products.

In other words, the technological change brings about a substitution of capital for unskilled and less educated workers and since this capital is better complemented with skilled and more educated
workers, there is an increase in the demand for skilled labor and a fall in the demand for unskilled labor. This leads to high wages for skilled labor and relatively low wages for unskilled labor. This process generates the dynamics of wage inequality in most of the developed countries, where the existence of capital-skill complementary hypothesis is well documented (Griffin, 1992; Bergstrom and Panas; Krusell et al. 1998 as cited by Ahay and Yuksel, 2009). Card, Kramarz and Lemieux (1995) present this same conclusion in their view of skill-biased technological change.

EFFICIENCY WAGE THEORY

Differences in wages of labor can also be as a result of employers seeking to discourage shirking, reduce turnovers and to attract superior employees. This is explained by the Efficiency Wage Theory (Campbell and Kamlani, 1997) which asserts that the productivity of workers in firms is positively correlated with the wages they receive. According to this theory, equilibrium wages are no always high enough to provide basic health for the workers. Therefore by paying more, the workers’ health would improve and along with it, their productivity.

As sub-models to the efficiency wage model, the shirking model (Shapiro and Stiglitz, 1984) explains this relationship that, if workers receive a higher wage, the cost of losing their job becomes higher, and this acts as an incentive for workers not to shirk and risk being fired. Also the Adverse Selection Model, (Weiss 1980, 1990) argues that a wage rate which is above the labor market equilibrium wage will draw more workers to the gates of the firm, thus allowing the firm to choose better workers from a bigger pool.

Stiglitz (1974), in the Turnover Model, also argues that if workers are paid a higher wage than they would get at other firms, they are less inclined to quit their jobs, thus decreasing the firm’s turnover. The firm thus saves itself the cost of having to hire and train new workers. Therefore wage differentials can also arise from the differences in the desires of employers.

EDUCATION AND ITS EFFECT ON WAGES

Card (1998) states: “Education plays a central role in modern labor markets. Hundreds of studies in any different countries and time periods have confirmed that the better educated individuals earn higher wages, experience less unemployment, and work in more prestigious occupations than their less-educated counterparts.”

Indeed education develops the intellectual abilities of a person. Human beings possess a lot of potential abilities that can be enhanced through education and only proper education can pave the way and lead to virtue (Khostinat, 2009). Education plays a central role in preparing individuals to enter the labor force, as well as equipping them with the skills to engage in lifelong learning experiences. Educational training is undertaken by individuals for various reasons, with the aim of securing jobs and earning high wages. Educational attainment therefore, raises one’s income (Psacharopoulos, 1993).

Evidence suggests that cognitive skills have large economic effects on individuals’ wages (Hanushek and Woessmann, 2007) and workers’ productivity depends on both years of education and what is learnt at school (Heckman, Layne-Farrar, and Todd 1995; Murnane, Willet, and Levy 1995). This relationship between education, productivity and wages is evident in the human capital theory which considers schools to be institutions for the formation of human capital, as presented by Becker (1964).

Rutherford (2002), in the Routledge Dictionary of Economics, defines human capital as the education and training embodied in a human person that gives rise to increased future income. It encompasses the abilities, skills and knowledge embodied in a person. The modeling of human capital in a more vigorous framework was pioneered by the studies of Mincer (1958), Schultz (1961) and Becker (1964) which formalized the analysis of demand for education by individuals and their supply of skills in the labor market. In this literature, they perceived education as an investment good which permitted individuals to accumulate human capital in order to receive a higher income afterwards.
Human capital can be general or specific. Becker (1993) introduced the distinction between these two. The former raises the productivity at different occupations whiles the latter only raises the productivity in the respective firms. Since workers can quit, Becker (1993) concluded that firms cannot capture gains of general training; therefore general training will be supplied only if the worker bear full cost by a reduction of his current wage. Firms therefore have an incentive to provide general training since they can capture part of the gains. Hashimoto (1981) draws this same conclusion and argues that in general, a sharing rule of cost and benefit between the worker and the firm is used in order to reduce the probability of an inefficient split.

From Becker’s distinction, we can deduce that it is possible for a wage differential to exist among individuals who have attained the same human capital through general training depending on who bears the cost of the training acquired.

The human capital theory therefore is a valid explanation for the linkage between education and wage in the labor market. That is, workers who have accumulated more education (or for that matter work experience) have a higher productivity, and therefore should be remunerated with a higher wage. The skills and abilities embodied in a person are not so tangible such as can be seen from a glance unless the individual put these into use. Therefore as argued by Weiss (1995), there are in fact other theoretical frameworks that are consistent with his hypothesized relationship.

One explanation is based on concept of sorting, which in this setting relates to either the notion that individuals use education as a signal of their unobserved ability, or alternatively, employers use education to screen workers, again as a consequence of their ability being unobservable (Weiss 1995). Spence (1973) also argued that potential employees send out a signal about their ability level to possible employers by acquiring certain education credentials. This is because generally, employers are willing to pay higher wages to employ better qualified workers. The informational value of the credential comes from the fact that the employer assumes it is positively correlated with having greater ability.

EDUCATION AND WAGES IN GHANA

In Ghana, not much work has been done on the education and earnings. However, Kingdon and Soderbom (2007) investigated the education –earnings relationship in Ghana, drawing on the Ghana living standards survey for 1998-99 and concluded that, in Ghana, the labor force participation rate was about 72%. There was also a clear hierarchy in the occupations with respect to education, skills and earnings: wage employment was at the top with the most well paid, best educated and the most literate and numerate workers; self-employment was next, with lower earnings, education and cognitive skills; and agriculture was last in all these three aspects. For example, average years of education in agriculture were 3.7, in self-employment 6.6 and in wage employment 10.5 years. This suggests that education and skills matter greatly because agriculture with the lowest years if education on the average, correspondingly has the lowest earnings among the occupations. Being literate strongly promotes entry into the best paying part of the labour market, namely wage employment. Literacy also correspondingly reduces the chances of ending up in poorly paid agriculture.

EMPIRICAL LITERATURE REVIEW

The issue of wage differentials was documented by Slitcher (1950) and Weiss (1966). However their analysis relied on descriptive statistics analysis alone. The quantification of wage differences among individuals employs a basic framework proposed by Mincer (1950, 1954) to study human capital and its impacts on wage. This framework known as Mincer equation or regression relies on the simple idea proposed by Becker (1964) that changes in individual characteristics through the life cycle contribute to higher income.

From Mincer’s equation, a lot of work has been done on the rate of returns to education and the casual effects of education using quartile regressions and OLS estimates.
Psacharaphous (1994) estimated the rate of returns to education and found that social and private returns at all levels largely decline by the level of the country’s per capita income. This, he argued was another reflection of the law of diminishing returns to the formation of human capital at the margin. He provided evidence that overall, the returns to female education were higher than those of males. Returns in the private competitive sector of the economy were higher than among those working in the public sector. He therefore concluded that investment in education continues to be a very attractive investment opportunity in the world today both from the private and the social point of view.

However, this has not been the case between African American and whites. Lang and Manove (2006), in trying to explain the wage differentials between blacks and whites, found that on the average, blacks get more educated than whites of similar cognitive ability but blacks earn no more than whites. They try to attribute this to the fact that African Americans attend lower quality schools than whites do. By controlling for measurable differences in school quality, they found that school quality cannot explain the education differential. They therefore concluded that education was more valuable sign of productivity for blacks than for whites. As a result, blacks invest more heavily in the signal and get more education for a given of ability.

Other researchers have also focused on other possible causes of wage differentials in economies using various data sets. Ahay and Yuksel (2009) for example try to examine the possibility of the capital-skill complementarity hypothesis being a cause of wage differentials in manufacturing industries in Ghana, using data drawn from the regional Programmes for EnterpriseDevelopment (RPED) data set provided by the Centre of Studies of African Economies (CSAE) at the University of Oxford. The surveys cover the four main manufacturing sectors, i.e., the largest interms of manufacturing value added and employment. These sectors were food processing and bakery (food-bakery), textiles and garments (textile-garment), wood products and furniture (wood-furniture), and metal products and machinery (metal-machinery).Their findings suggested that capital-skill complementarity holds in aggregate level and wood-furniture sector in Ghana. However, they rejected the capital-skill complementarity hypothesis for food-bakery, textile-garment and metal-machinery sectors. Moreover, they found that all pairs of factors are substitute for one another in all four manufacturing industries in Ghana. However, the elasticity estimates do not ultimately support the hypothesis suggesting that skilled workers and capital are complements in production for all manufacturing sectors for Ghana.

There has also been the debate about whether school quantity (in this context, the amount of education attained) and school quality has an influence on the growing wage differentials. Bedi and Edwards (2001) examined the economic effect of school quality using data from Honduras. Their objective measures of school quality capture teacher training, school infrastructure and school crowding. Their results displayed strong positive effects of school quality on earnings and on educational returns. They found that men educated in countries with better quality schools earned significantly high incomes than those men educated in countries with low quality schools. They concluded that school quality should be an important aspect of education policy because the labor market recognizes it as a productive investment and rewards it with higher wages.

In a nutshell, wage differentials are prevalent features in almost all labor markets especially of capitalist economies. In recent times economists have noted these wage differentials and sought to explain them. Their empirical studies prove that education plays a very important role in determining wages and thus a source of wage differentials.

Other factors such as technology, school quality and the motives of employers all have huge bearing on wage differentials. This work therefore seeks to determine the relationship between education and wage differentials.
METHODOLOGY

BACKGROUND OF THE STUDY AREA

PROFILE OF ACCRA

Accra is the capital and largest city of Ghana, with an estimate urban population of 2,291,352 as of 2012. Accra is also the capital of the Greater Accra Region and of the Accra metropolitan district with which it is conterminous. Accra is furthermore the anchor of a larger metropolitan area, the greater Accra Metropolitan Area (GAMA), which is home to about 4 million people making it the largest metropolitan conglomeration in Ghana by population (Wikipedia, the free encyclopedia).

ECONOMIC ACTIVITY IN ACCRA

In 2008, the World Bank estimated that Accra’s economy constituted around 10% of Ghana’s total gross domestic product (GDP). The sectors of Accra’s economy consist of the primary (farming, fishing, mining and quarrying), secondary (manufacturing, electricity, gas, water, and construction) and tertiary sectors (wholesale trade, retail trade, transportation, communication, education, health and other social services). Both banking and non-banking financial institutions also offer ancillary services. The tertiary sector is the city’s largest, employing about 531,670 people. The second largest, which is the secondary sector employs 22.34% of the labor force, or around 183,934 people. The smallest economic sector, the primary sector employs approximately 91,556 people. The predominant economic activities are fishing and agriculture, with fishing accounting for 77.8% of production labor. (Wikipedia, the free encyclopedia)

EDUCATION IN ACCRA

Educational facilities in the city are provided by the public and private sectors. The private sector provides the bulk of these institutions at the pre-school, first and second cycle levels, whereas the public sector is the leader at providing tertiary education (Wikipedia, the free encyclopedia).

SOURCES OF DATA

The research made use of primary data. Primary data is data observed or collected directly from first-hand experience. This type of data was used because of the need to collect information for the specific purpose of the study.

The method used for the collection of the primary data was questionnaires. A questionnaire is a research instrument consisting of series of questions for the purpose of gathering information from respondents. (Wikipedia, the free encyclopedia). The questions that were asked were tailored to elicit the response that would help in getting specific information. Questionnaires were used because of the amount of data required for the analysis. Since questionnaires were anonymously completed, it helped the respondents to give us reliable and credible information. The respondents were selected from various institutions from both the private and public sectors. The respondents, randomly selected answered questions which related to their educational background, job description and their respective wages among other relevant questions.

SAMPLE SIZE

Considering the target group and how busy they are, and also due to time constraint, a sample size of 100 was selected. The population considered was the labor force in the Accra metropolis which we denoted by N.
SAMPLING TECHNIQUE

The sampling technique employed was convenience sampling. A convenience sampling is a statistical method of drawing representative data by selecting units because of their availability or easy access. This sampling method was utilized because data was ready available and also they were collected quickly. However, readers should note that the sample might not represent the population as a whole, and it might be biased by volunteers. The respondents were public and private sector workers randomly sampled from the Accra metropolis.

QUESTIONNAIRES DESIGN

The questionnaire was carefully designed to ensure that it will produce the required information needed for the attainment of the research objectives. A total of 26 questions some of which were open ended and some closed ended questions sought to solicit information relating to the individual’s job, his/her education, training acquired and wages earned. Some of the questions required the respondents to tick options that best suited them while for the open ended questions they were to express opinions on certain issues relating to their job and their educational qualification.

DATA ANALYSIS

Data was analyzed using Statistical Package for Social Scientists (SPSS) software based on the information received from the questionnaire. The analysis was guided by the objectives of the research and sought to answer the research questions. Findings gathered from the research were presented in a descriptive form with the use of tables and charts to enable an easier and a more simplified presentation of findings; Microsoft excel was used. The results from the data collection were used to run a regression based on the Mincer’s earnings function to find its significance and applicability in the Accra metropolis.

DATA PRESENTATION AND ANALYSIS

Data Presentation

Figure 1 Age Distribution of Respondents

Source: field survey 2013

Fig 1 shows the age distribution of the respondents. Out of the 100 respondents, 99% of the respondents gave information concerning their age. Out of the valid percentage, 35% are between the ages of 20 and 29, 42% between 30 and 39, 14% being 40 to 49 and the remaining 8% above 50 years. This indicates that, a majority of the working class in Accra, are in their early working years and according to the Age-Earnings profile, they must be on the rising portion of their profile and their wages should be rising.
Figure 2: Sex of Respondents

Source: field survey 2013

In figure 2, information on the sexes of the respondents is presented. More than half (59%) were males and 41% were females.

Figure 3: Sector of Workers

Source: field survey 2013

The project targeted workers both in the public and private sector. There was almost a balanced representation from both sectors as 51% came from the public sector and 49% from the private sector.

Figure 4: Highest Level of Education attained by Respondents
Education is an important factor in determining the wages of workers; thus information concerning the highest level of education attained by the workers was also considered. Fig 4 shows, information given by respondents about their highest educational level. The survey revealed that 43% of workers had attained a first degree, a diploma 22%. However, there were also a significant number of them that had a postgraduate degree. This suggests that a diploma, a first degree or a postgraduate degree grant qualification for participation in the formal sector of the labor market. The probability of a WASSCE/SSCE holder participating in the formal sector of the labor market is very low. Workers with postgraduate degrees are concentrated in areas like lecturing and research assisting in the service sector and not in industry.

Source: field survey 2013
Figure 5: Salaries (in Ghana Cedi) of Respondents

Source: field survey 2013
In figure 5, we present the basic salary distribution of the respondents. The respondents were divided into five (5) salary groups. It was revealed that the majority of the respondents (78%) earn between GH₵ 107 and GH₵ 817. The remaining 22% earn above GH₵ 817.

Figure 6: Salaries of Respondents by Sector

Source: field survey 2013
Figure 6 shows a representation of salaries of workers by their respective sectors. Comparing the salaries of workers to their sectors, it was noticed that most of the public sector workers fall within the lower wage ranges that is GH₵ 107- GH₵ 343 and GH₵ 344- GH₵ 580. However the private sector workers fell within the higher wage ranges that is GH₵581- GH₵817, GH₵818- GH₵1054 and above GH₵1055. This is in line with the stylized fact that the public sector pays lower wages than the private sector.
Since we were interested in finding the relationship between education and earnings of workers, we also found the number of workers by educational level that fall within a particular salary group. As shown in table 1, WASSCE/SSCE holders earned less than ₢344 and fall within the ₢107-俵343 and they earn the lowest wages together with the majority of those with other certificate. Only first degree and postgraduate holders earn above ₢1055. This shows that a higher level of education can propel the worker to higher salary level.

Table 1: Salaries by Educational Level

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Salary (Ghana Cedi)</th>
<th>107-343</th>
<th>344-580</th>
<th>581-817</th>
<th>818-1054</th>
<th>1055 and above</th>
</tr>
</thead>
<tbody>
<tr>
<td>WASSCE/SSCE</td>
<td></td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HND or diploma</td>
<td></td>
<td>8</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>BA or BSc</td>
<td></td>
<td>6</td>
<td>12</td>
<td>15</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Postgraduate</td>
<td></td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>other(GCE,O and A level, training college, Middle School leaving Certificate)</td>
<td></td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>27</td>
<td>25</td>
<td>23</td>
<td>7</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: field survey 2013

From our findings, education was a major factor that influenced the employment of workers. 64% of the respondents had their educational qualification being the factor that highly influenced their employment. For 27% of the respondents, their educational qualification partly influenced their employment. Only 9% of the respondents had their educational qualification not influential in their employment. This suggests that employers use the educational qualification as a signal for sorting workers into productive and unproductive groups. The concept of Signaling as suggested by Michael Spencer also applies to the labor market in the Accra Metropolis. This is seen in table 2.

Table 2: Educational Influence in Employment

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td>Partly</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Not influential</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: field survey 2013

From our findings, education was a major factor that influenced the employment of workers. 64% of the respondents had their educational qualification being the factor that highly influenced their employment. For 27% of the respondents, their educational qualification partly influenced their employment. Only 9% of the respondents had their educational qualification not influential in their employment. This suggests that employers use the educational qualification as a signal for sorting workers into productive and unproductive groups. The concept of Signaling as suggested by Michael Spencer also applies to the labor market in the Accra Metropolis. This is seen in table 2.
The amount of experience gathered by a worker cannot be left out in determining the salary level of the worker. From fig 7 below, it was found out that about 35% of the workers had between 0 and 4 years of experience, 32% had between 5 and 9 years, 19% between 10 and 7% between 15 and 19 and the remaining 8% above 19 years of experience.

Source: field survey 2013
Figure 8: A Scatter Plot of Salaries (in Ghana cedi) and Years of Experience.

Source: field survey 2013

Figure 8 shows a scatter plot of years of experience and salary levels of workers. The diagram also shows the correlation between the workers’ years of working experience and the salary levels. From the plot, it can be seen that workers with a lot of years of experience (above 20) earned below ₋580. Workers who earned high salaries have below 20 years of experience and even workers with low years of experience of less than 4 years had a significant number of them earning above ₋580. This suggests that years of experience does not so much count in determining the wages of workers.

Figure 9: A Scatter Plot of Years of Schooling and Years of Experience

Source: field survey 2013
Figure 9 also shows a scatter plot of the years of experience with the level of education. It can be seen that majority of the workers with low years of experience in the labor market have high years of schooling.

**Table 3: Level of Education Reflecting Salary Earned**

*Source: field survey 2013*

Table 3 shows that most respondents in answering whether their level of education reflected their salaries answered ‘no’. Only 39% of the employees attested to the fact that their educational levels reflected their salaries.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>39</td>
<td>39.79592</td>
</tr>
<tr>
<td>No</td>
<td>59</td>
<td>60.20408</td>
</tr>
<tr>
<td>No response</td>
<td>2</td>
<td>2.04082</td>
</tr>
<tr>
<td>Total</td>
<td>98</td>
<td>100</td>
</tr>
</tbody>
</table>

**Table 4: Risks Factored in the Composition of Salary**

*Source: field Survey 2013*

From the data collected, 77% confirmed that there was either no risk or that there was a risk but it was not factored in the composition of their salaries while a lower percentage of 23% admitted the presence of a risk that was factored in the composition of their salaries. However, 3 persons declined revealing the status of the risk levels in their jobs for personal reasons.

Analysis of the responses gathered revealed that a greater proportion of the respondents are of the view that education is the main cause of differences in wages amongst them. Another significant factor that was revealed from the analysis was the type of sector, institution and the company policy. These factors aside education also contribute to a greater extent in the wage differentials. However experience, skill, years of service, working conditions, overtime pay, single spine salary structure, attitude towards work, excess supply of labor in a particular occupation all account for wage differentials in Accra.
POLICY RECOMMENDATIONS

Government policies set to increase enrolment in schooling like the School Feeding Program should be encouraged. Efficient supervision and monitoring of this program should be adopted so that the policy would live to its expectation.

Investments to education and other learning activities should be subsidized by government so that low wage workers can easily make these investments to improve their economic well-being. Women should also be encouraged to pursue higher education as a means of bridging the wage gap between men and women. Tertiary institutions can give a lower cut off point for entry for females as this will be geared towards bridging the wage gap between men and women.

Also since the research showed that experience is not significant in the determination of wage differentials, workers should not place so much emphasis on years of experience. However for productivity and as a bridge in the differentials, investment in on-the-job training should be pursued at all levels of employment. To encourage investment in on-the-job training, employers should offer incentives to encourage the undertaking of on-the-job training by employees.

CONCLUSION

Our findings revealed that education has a positive effect on wage differentials hence an increase in years of schooling results in an increase in one’s wage. Our findings again showed that aside education, there were other factors that attributed to the existing wage differentials in Accra. Some of these factors include the sex of the worker, sector in which the worker works in, company policy, skills and working conditions. All these factors are significant causes of wage differentials.

The public sector was discovered to pay lower wages than the private sector and this explains why most people would prefer to work in the private sector irrespective of the job security that the public sector provides its workers. It was also seen that males earned higher than females and this was reinforced when the findings revealed that males in the private sector earned higher than females who worked in the public sector.

It can be emphatically concluded from our research that there is a relationship between education and wages differentials among workers in Accra. The higher ones education, the higher ones salary would be and vice versa and thus education should thus be considered a policy variable in bridging the wage gap between various categories of worker.

REFERENCES


