THE EFFECT OF SEARCH EFFORT ON THE TRANSITION FROM UNEMPLOYMENT TO WORK: EVIDENCE FROM A CROSSSECTION OF GHANAIAN FORMAL SECTOR WORKERS

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ABSTRACT. While the role of search effort in the transition from unemployment to employment is not contentious, there is paucity of empirical evidence on the nexus between search effort and the duration of unemployment, especially in developing countries. Hence, this paper focuses on the time period in which the individual exits unemployment, using search intensity as a key explanatory variable. Data for the study is sourced from a survey of 404 formal sector workers in Accra who secured their first employment from 2005 and 2012. We disaggregated the transition period into three intervals namely; less than 1 month, between 1 and 12 months and more than 12 months, in order to achieve this objective. Using the multinomial logistic regression, we found that the use of multiple methods (search intensity) in the search process has a highly significant ($p<0.001$) effect on the probability of entering employment. In particular, using two additional methods decrease the probability of finding employment in less than 1 month by 11.4 percentage points but raises the prospect of entering into employment in the 1–12 months period by 9.8 percentage points. Other variables that significantly explain the duration of unemployment include age, years of schooling, sector of employment (private sector), family support and the year of employment. The paper concludes with a recommendation to realign the Labor Market Information System to the dynamics of the labor market.
JEL Codes: J6; J21; J23

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1. Introduction

In the search theoretical literature, there is overwhelming consensus on the influence search effort exerts on the likelihood of leaving unemployment. The conventional transmission mechanism is premised on the gains from the acquisition of new labor market information. Investing more resources into the search process is thought to expand the seeker's frontier of knowledge on unoccupied vacancies and keep her abreast of developments within the ever-evolving labor market. As the spectrum of job offers drawn by the unemployed seeker increases, the length of time spent in shopping for an acceptable job is significantly curtailed.

Conversely, the search process is inherently costly. Monetary, time, psychic and other non-pecuniary costs are incurred in the process of matching job seekers to unoccupied vacancies. At the same time, the distribution of resources is not uniform across individuals and households. This bodes that the intensity of search and intervening period between search and production of an acceptable job offer are also likely to be non-identical. Premised on this axiom, persons with low endowment of financial and non-monetary resources risk a delayed exit from unemployment. A protracted period of unemployment does not only indicate structural obstacles linked to poverty, social inequalities and exclusion but also severe frictions in the labor market (IIEP/UNESCO, 2005). Further, unemployment "eats" into the work-life-span of a person without settling the "bills", depriving the person of work-induced income. As well, Arulampalam (2001) suggested that a spell of unemployment carries a wage penalty of about 6 per cent on re-entry and 14 per cent after three years. Similarly, government loses out on any income tax revenue in the intervening period.

There has been a spate of empirical papers in recent times analyzing the factors that influence the transition to employment. In contrast, very few of these empirical research explicitly accounts for the effect of search effort despite its significant theoretical weight. For example, Mora et al. (2000), Richardson and den Berg and der Klaauw (2002), Galego and Caleiro (2009), Al-Kafri (2011) and Lombardo et al. (2012) focus on the field of study and its effect on the transition process. Others like Osberg (1993), Kettunen (1997), Dendir (2006), Krueger and Mueller (2008) and Lim (2011) examined the relationship between the receipt of unemployment income or benefit and the hazard of leaving unemployment (see also Nagler, 2013; Vodopivec, 2013; Rothstein, 2011; Rafael, 2008) while the role of demographic and socio-economic factors have been widely explored (Rees and Gray, 1982; Holzer, 1989; Blau and Robbins, 1990; Serneels, 2001; Lassibille et al. 2001; Rosati et al. 2006; Kupets, 2006; Arntz and Wilke, 2009; Andohol and Asom, 2011). Thus, in all of the above studies, the production of acceptable job offers is

exogenous to the search process. To the best of our knowledge, Meyer (1995), Van der Klaauw (2001), Fourgere et al. (2005) and Bloemen (2005) are the only authors that have made an attempt to directly measure the role of effort in the search process. Except for Bloemen (2005), the other studies were purely experimental and therefore based on a rather small sample size.

More so, the dearth of labor force data in the developing regions of the world has limited research on duration of unemployment to the advanced European and North American countries. Except for the works of Serneels (2001), Dendir (2006) on Ethiopia, Llg and Eleni (2012) as well as Nyarko (2012) on Ghana, there is limited evidence on the duration of unemployment, especially on the relationship between search intensity and the duration. However, African labor markets, which are predominantly informal, are susceptible to poor transition outcomes and its workforce are therefore more likely to suffer disproportionately from unemployment. Compared to the global unemployment rate of 5.9 per cent in 2012, for instance, the African Region recorded a rate of 9 per cent, second highest only to that of the Middle East Region (ILO, 2013).

Since the catalytic role of search effort in the transition process is not contentious, this paper focuses on modeling the time period in which the individual exits unemployment, with search effort as a choice variable. We disaggregated the transition period of the 404 previously unemployed workers into intervals of less than 1 month, between 1 and 12 months and more than 12 months to achieve this objective. The rest of the paper is organized as follows. Section two briefly discusses unemployment in Ghana. Sections three and four describe the dataset and theoretical/empirical estimation respectively. The empirical results are then discussed in section five while section six concludes the study.

2. Unemployment

A person is said to be unemployed if he/she is above the minimum legal age of 15 years and is without work, but is currently available and actively searching for employment (see Baah-Boateng, 2013). The unemployment rate is measured by the proportion of the labor force that is unemployed. In Ghana, the rate of unemployment dropped from 10.4 per cent to 5.8 per cent between 2000 and 2010. The decline in the unemployment rate is explained by the faster growth of employment relative to the expansion of the labor force. Total employment increased from 7.43 million in 2000 to 10.24 million in 2010, representing a 3.27 per cent average annual growth compared with a 2.75 per cent average annual expansion of the labor force from 8.29 million to 10.88 million over the same period. In effect, the number of unemployed people declined from 0.86 million to 0.63 million. The unemployment rate in

the country, which was lower than the Sub-Saharan Africa average at 8.2 per cent in 2010, is largely linked to high informality (Baah-Boateng, 2013).

Unemployment is mainly an urban phenomenon in Ghana to the extent that the urban unemployment rate was more than twice and almost five times higher than in rural areas in 2010 and 2006, respectively. Within the urban areas, Accra's unemployment rate of 7.3 per cent exceeded the national average of 5.3 per cent in 2010 (GSS, 2012). The high incidence of unemployment in the nation's capital is mainly due to the influx of internal migrants. Urban areas, especially Accra, are wrongly perceived as teeming with employment opportunities by young people residing in rural areas and are therefore encouraged to relocate without any guarantee of job offers. Unemployment is also found to be a more challenging phenomenon for females than for males. According to the 2010 Population and Housing Census report, the share of women in unemployment exceeds that of men by 100 basis points (GSS, 2012).

Young persons aged 15–24 years bear the brunt of unemployment relative to any other age group. The high incidence of youth unemployment is partly due to the rapid population growth rate of 2.7 per cent on an annual basis. In 2010, the rate of unemployment among the 15–24 years cohort was 45.6 per cent compared with 42, 9.0 and 3.4 per cent for the 25–44, 45–64 and 65+ years age group. Indeed, the youth unemployment rate has remained at more than twice the overall rate since 2000. For many, this is unsurprising as the 15–24 year-olds usually consists of new entrants in the labour market. Nearly 60 per cent of the unemployed persons in 2010 were seeking for work for the first time (GSS, 2012). Also, we observe that the proportion of unemployed declines with age. Since age is generally correlated with experience, it suggests that labor market experience improves the prospect of leaving unemployment.

A disturbing feature of unemployment in Ghana is that the incidence of unemployment increases with years of education. Baah-Boateng (2013) estimated the highest unemployment rate among those with secondary education followed by tertiary graduates, while those with no education have the lowest unemployment rate. The education system is structured to prepare students for work in the formal sector but the slow growth and shrinkage of the sector constrains the labor absorption capacity of that sector. Therefore, the incidence of unemployment among highly educated persons has increased in recent times. Relative to the 1960s and 1970s, where tertiary graduates had easy access to employment, recent graduates find it difficult to enter employment. Boateng and Ofori-Sarpong (2002) reported that for each new secondary or tertiary educated person that entered the labor market in the 1970s, there were 33 per cent more jobs. This suggests the rate of "educated" unemployment

was negligible if not non-existent. However, the share of tertiary graduates in unemployment rose sharply from 2.1 per cent in 2001 to 9.1 per cent in 2010.

In the absence of a functioning Labor Market Information System, the search process in Ghana takes a variety of form. It may involve the combination of formal and informal methods. Within this context, the efficacy of the search methods may be unobservable and potentially swells the cost incurred in the transition process. Since there is no known empirical evidence to verify this observation in Ghana, we attempt to bridge this deficit in knowledge and supply information that could serve as a basis for comparative analysis.

3. Source of Data

Like many developing countries, Labor Force Survey (LFS) data is unavailable in Ghana.[1] As a result, it is extremely difficult to observe the time it takes an individual to procure an acceptable offer. Relying on a retrospective database that is generated from identifiable currently employed workers will therefore suffice in our attempt to examine the transition process. The obvious implication of this approach is that currently unemployed workers are treated as unobserved observations and therefore excluded from the analysis.[2] Even though this limits the scope of the analysis, it permits us to gain useful insight on duration of unemployment in Ghana. This paper uses survey data from a sample of 404 formal sector workers in Accra who obtained their first employment from 2005 to 2012. The data was collected through a two-stage sample design.

Firstly, a register of 4,694 formal sector firms was compiled from employer-based associations such as Association of Ghana Industries, Ghana Club 100, Ghana Investment Promotion Council, Ghana Chamber of Commerce, Ghana Chamber of Mines, Public Services Commission, National Board for Small Scale Industries and State Enterprises Commission. Subsequently, the firms were classified into industry using the International Standard Industrial Classification (Revision 4) and 100 firms were randomly selected from the classified list. In selecting the 100 firms, care was taken to ensure that each industry was represented. Afterwards, a questionnaire was randomly administered to five workers in the selected 100 firms. 421 completed questionnaires were retrieved after the survey and after accounting for missing information, 404 questionnaires were included in the analysis.

This paper follows the standard classification of search methods into formal and informal methods (Rees and Gray, 1982; Try, 2005). The formal methods include direct application, responding to job advertisement in the media, national service, and private employment agency. Informal methods cover friends/family network, directly checking factories or worksites for

vacancies and starting a business. A residual group which comprises internship and school placement center is also included as part of the methods. On the average, each respondent in the sample used at least two methods in the search process. Table 1 presents a summary of the variables used in the estimation.

Table 1 Key Summary Statistics of Respondents

Variable	Number of Observations	Mean	Standard Deviation	Minimum	Maximum
Number of methods	404	2.138	1.419	1	8
Age	404	23.396	2.969	15	39
Years of schooling	404	14.492	2.685	0	19
Male	404	0.571	0.495	0	1
Experience	404	0.373	0.484	0	1
Receipt of support	404	0.745	0.436	0	1
Male-headed household	404	0.309	0.462	0	1
Akan	404	0.512	0.500	0	1
Ga	404	0.136	0.343	0	1
Ewe	404	0.175	0.381	0	1
Small firm	404	0.161	0.368	0	1
Medium firm	404	0.260	0.439	0	1

Constructed from the survey data

4. The Search Model

In the formal labor market, there is a structured mechanism for matching job seekers to vacancies. This mechanism requires unemployed workers to use non-identical search effort[3] to solicit job offer(s) from employers. On account of the differences in the search effort, each applicant selects the intensity which yields the best possible outcome. In this case, the outcome is interpreted as the duration of producing and accepting a job offer. If being employed is desirable, then the optimal strategy of the unemployed worker is to choose a search effort which minimizes his/her duration of search-induced unemployment.

Assume that, in each period, the unemployed individual searches for job in a decentralized labor market.[4] The process of searching is assumed to involve the use of search methods which vary in productivity and costs. In the given period, the search may result in the production and acceptance of a job offer. Granted this occurs, the psychic happiness and expected wages

from being employed enhances the future utility of the unemployed. If the search fails to produce a job in the current period, the individual continues searching until he finds an acceptable job.

However, the credit market is assumed to be inaccessible to the unemployed, hence the job seeker must finance the cost of searching out of his/her pocket.[5] The monetary and time costs incurred during the search period respectively reduces the non-labor income and leisure time at the disposal of the unemployed. Thus, these expenditures reduce the unemployed person's current period utility and because of the binding liquidity constraint, the unemployed-search has a finite duration (Mortensen, 1986). The representative individual must therefore choose a search intensity which maximizes the returns from search (that is, producing an acceptable offer within the shortest possible time).

Following Holzer (1988), the utility maximization problem is formally stated as:

$$U_{it} = \Phi\left(V - \sum_k C_k M_k - L - \sum M_k\right) + \pi(M_1, \ldots, M_k)\,[1 - F(w)] \times E[Y(w)|w]$$

$$+\{1 - \pi(M_1 1 \ldots \ldots [\![, M]\!]_1 k)\ [1 - F(w)\, U_1(t+1)] \qquad (1)$$

where

U_{it} represents individual i's total expected utility at period t,
w is the reservation wage
$M_1, \ldots, M_k$ are search intensities
Φ is utility in the current period
L is leisure time
C_k is the pecuniary cost per unit of search intensity
π is the job offer probability
F(w) is the wage offer distribution
$Y(w)$ is the utility function for work in the next period

The first, second and third terms on the right hand side of equation (1) show utility in the current period, utility derived from work and unemployment in the next period respectively.

Solving the utility maximization problem yields the following first order conditions which determine the choice of search effort:

$$Y(w) = U_{t+1} \qquad (2)$$

$$\Phi_1 C_j + \Phi_2 \geq \pi_k \int_w^{\infty} [Y(w) - U_{t+1}] F(w) dw \quad \text{for every k.} \qquad (3)$$

Equation (2) denotes that utility from employment must equal the expected utility of being unemployed in the next period and equation (3) shows that each search effort is chosen such that the marginal cost equals the marginal benefit.

Following equations (2) and (3), the duration of producing an acceptable job offer is then the realization of a stochastic process which can generally be stated as:

$$\mathbf{P_E} = \pi \sum_{1}^{k} M_i \, [1 - \mathbf{F(w)}] \tag{4}$$

Equation (4) means that the probability of escaping unemployment in any given period depends on the job offer rate, search effort and reservation wage.

4.1 Estimation Procedure

Traditionally, duration or survival models are more appropriate for estimating unemployment spells. The attractiveness of duration models lies in its ability to accurately predict the end of an unemployment spell. However, the use of duration models in this paper will lead to inefficient estimates. This arises because right-censored observations (incomplete unemployment spells) are unobserved and can therefore not be controlled for in the estimation procedure. We therefore settle on the next best method, the logistic regression model.

According to Long and Cheng (2004), the logistic regression model can be used to estimate the likelihood of occurrence of a particular event without the need to censor some observations. In this paper, we employ the Multinomial Logit estimation method. This is anchored on the fact that the dependent variable (duration of unemployment) comprises three mutually exclusive categories which cannot be ranked and the explanatory variables are time invariant. Multinomial Logit model therefore makes it possible to simultaneously estimate the probability of entering employment at alternative time intervals relative to the reference time interval in a single model. Based on this formulation, the estimates can be interpreted as the effect of the covariate on the probability of leaving unemployment in a given time interval, ceteris paribus. This technique is consistent with the approach used by Folmer and Dijk (2001), Lombardo et al. (2012) in explaining the differences in the duration of unemployment in the Netherlands and Italy respectively. The multinomial logit technique can formally be stated as follows.

Assume Y_i is the observed time exhausted by a previously unemployed worker in generating and accepting a job offer. Let Y_i be a linear function of the form:

$$Y_i = \beta_0 + \beta_i X_i + \varepsilon_i \,, \tag{5}$$

where Y_i consists of three categories (based on responses from the survey data):
0 = spent less than 1 month (short term unemployment)
1 = spent between 1 and 12 months (medium term unemployment)
2 = spent more than 12 months (long term unemployment)
β_0 is the constant term
β_i is a vector of coefficients
X_i is a set of explanatory variables
ε is the error term

5. Results and Discussion

In order to verify the suitability of the estimated multinomial logit model, the significance of the IIA assumption is verified using the Hausman/McFadden test. The null hypothesis that the constrained and unconstrained coefficients are the same is rejected at 1 per cent significance level (at a P-value of 0.0003). It implies that the estimated multinomial logit model is apt for this study. Also, Long and Cheng (1997) have shown that the Likelihood Ratio (LR) test is the preferred measure for evaluating coefficients estimated by maximum likelihood method. The test for the over-all goodness of fit (LR) is found to be highly significant, even at 1 per cent significance level. This suggests that the logistic model fits the data well.

Although the pseudo R^2 does not exactly connote the proportion of variation in the model explained by the explanatory variables, the value of 0.15 indicates that the predictive power of the model is fairly high for maximum likelihood estimation (MLE). Owing to the asymptotic bias of MLE, Peng et al. (2002) have suggested a minimum sample size and observation-to-predictor ratio of 100 and 10 to 1 respectively. The sample size of 404 with an observation-to-predictor ratio of 22 to 1 more than satisfies these conditions. Having met the minimum conditions, the estimates from the model can be considered reliable. Thus, we proceed to discuss the results.

Table 2 Multinomial Logit Estimates on the Likelihood of Entering Employment

Less than 1 month				Between 1 and 12 months		
Independent Variable	**Mar-ginal effect**	**Standard error**	**P value**	**Mar-ginal effect**	**Standard error**	**P- value**
Age	0.305	0.126	0.016**	-0.238	0.124	0.054*
Age square	-0.007	0.003	0.011**	0.005	0.003	0.048**
Years of schooling	-0.045	0.020	0.025**	0.051	0.021	0.014**
Search intensity	-0.057	0.022	0.009***	0.049	0.021	0.019**
Male	-0.013	0.058	0.828	-0.041	0.058	0.472
Business	0.087	0.159	0.583	-0.095	0.160	0.553
Social science	0.158	0.161	0.327	-0.108	0.163	0.507
Science	0.257	0.152	0.091*	-0.238	0.150	0.114
Vocational	0.159	0.141	0.258	-0.194	0.138	0.158
Head-Formal	0.180	0.098	0.066*	-0.128	0.095	0.181
Head-Informal	0.152	0.100	0.130	-0.145	0.097	0.134
Experience	0.059	0.066	0.372	-0.038	0.065	0.559
Receipt of Support	-0.086	0.069	0.212	0.051	0.068	0.455
GH 500-1000	-0.084	0.066	0.207	0.032	0.067	0.636
GH₵ 1000-1500	-0.193	0.101	0.057*	0.156	0.109	0.152
Above GH₵ 1500	-0.083	0.125	0.508	0.007	0.129	0.957
Private Sector	0.254	0.058	0.000***	-0.204	0.060	0.001***
2009/2012	0.125	0.058	0.031**	-0.086	0.058	0.135
Number of observation = 404 LR chi2(36) = 118.1 Prob > chi2 = 0.000 Log likelihood = -317.264 Pseudo R^2 = 0.157						

Note: ***, **, * signifies 1 per cent, 5 per cent and 10 per cent significant levels respectively. The omitted categories are female, other courses, unemployed or retired, no work experience, no receipt of support, below GH₵ 500, public sector and 2005/2008 respectively. The reference category for the multinomial logit is more than 12 months duration.

The results show a significant non-linear relationship between age and the probability of entering employment. Initially, an additional year raises the probability of being employed within one month by approximately 31 per-

centage point but declines to about 24 percentage points between the 1–12 months period. However, as the younger people move into adulthood, the likelihood of obtaining employment in less than one month declines to 7 percentage points but increases to 5 percentage points within the 1–12 months category. The positive association between age and risk of being in long term unemployment can be justified on two grounds. Firstly, additional year depreciates the skill of the unemployed worker and therefore reduces her competitiveness on the labor market. Secondly, the relatively low financial responsibilities of young person's makes them more likely to accept "low" paying jobs which are more readily available. Hence, the prospect of a young person finding a job in less than one month is enhanced. This result is akin to that of Richardson and Van den Berg (2001) who find that an additional year increases the likelihood of leaving unemployment but contradicts that of Dendir (2006) who shows that an increase in age decreases the hazard of long term unemployment.

Furthermore, years of schooling first enter the regression negatively and then positively, in the less than 1 month and 1–12 months categories respectively. It implies that education increases the prospect of finding a job in the medium term but not in the short term. An extra year of schooling significantly decreases the likelihood of being employed by 4.5 percentage points in the first month of searching for a job but raises the likelihood of finding employment in the 1–12 months period by 5.1 percentage points. The seemingly U-shape effect of years of schooling is due to the fact that educated persons have more opportunities in the labor market. Thus, by searching intensively, educated individuals defer employment in the short term. More importantly, the result suggests high educational attainment abates the risk of long term unemployment. Similar to this finding is that of Tansel and Tasci (2002) who found that an additional year of schooling reduces the hazard of unemployment.

In accordance with our expectations, the use of multiple methods in the search process has a highly significant (at 1 per cent) effect on the probability of entering employment. Using two additional methods decreases the probability of finding employment in less than 1 month by 11.4 percentage points but raises the prospect of entering employment in the 1–12 months period by 9.8 percentage points. A logical outcome of the decision to search intensively is to decline offers in the initial period of job search and look out for other more lucrative offers. The decision to search intensively then prolongs the duration of entering into employment. Alternatively, the finding suggests that intensive search is undertaken by seekers with limited opportunities in the labor market. As a consequence, their effort is only rewarded in the intermediate rather than short term. On the whole, searching intensively

reduces the risk of long term unemployment. Similar conclusions were reached by Fourgere et al. (2005) in France and Bloemen (2005) in the Netherlands.

Despite the fact that the result on gender is insignificant, being a male increases the likelihood of long term unemployment. This result parallels that of Lamb and McKenzie (2001), but contrary to expectations. Considering the well-known difficulty women experience in entering the formal labor market, it is expected that they will have a higher risk of long term unemployment. However, Sackey and Osei (2005) show that Ghanaian women have a lower incidence of unemployment as compared to men. Possibly, this can be attributed to the increasing competitiveness of women in the job market as a result of a rise in their educational attainment. Also, relative to men, females are more likely to accept low wage jobs as a result of differences in cultural roles. Traditionally, the male is considered as the head of the household and must provide for the family. As a result, males look out for high wage jobs which are produced only after considerable search period.

In terms of the fields of study, each distinguished course increases the likelihood of entering employment in the short term relative to basic education. However, Science has the highest (27 percentage points) and only significant effect on the probability of finding a job in less than 1 month. The relatively smaller number of job seekers with qualification in Science reduces the degree of competition in the search process and thereby increases the prospect of finding a job in the short term. In Spain, Mora et al. (2000) observe that graduates with specialization in Engineering and Experimental Science are more likely to have shorter unemployment tenure. However, Al-Kafri (2011) contends that Pedagogical specializations reduce the unemployment spell in Palestine. Nonetheless, there are no significant differences between the courses in the 1–12 months category. This implies that the fields of study have a short term effect on the probability of entering employment.

Furthermore, persons with economically active household heads find employment sooner. Serneels (2001) finds similar results in Ethiopia but Holzer (1989) shows that employment status of the household head has no significant effect on the duration of finding employment. In the context of the Ghanaian labor market, the impact of the economic status of the household head is strongest and significant if the household head works in the formal sector. Household heads employed in the formal sector intervene in the search process by providing "insider" information. In this way, unemployed workers become more knowledgeable about vacancies and effective at searching. Thus, they are likely to spend relatively shorter time in transition to employment. However, in the 1–12 months category, none of the dummy variables on the economic status of the household head is significant. Again, this shows that the effect of economic status on the probability of exiting unemployment is short-lived.

Although the dummies for experience and receipt of support are insignificant, they conform to a priori expectations. Persons with prior experience in the labor market (internship) tend to be more effective in searching for a job as a result of their strong attachment to the labor market. Consequently, the likelihood of obtaining employment in the short term is enhanced. This finding parallels that of Jensen and Westergard-Nielsen (1987) in Denmark. They show that experience has no effect on the hazard of leaving unemployment. On the other hand, recipients of family support are less likely to obtain employment in the short term. Receipts from relatives, which may be monetary or non-monetary, subsidize the cost of unemployment and therefore raises the reservation price of labor. Lim (2011) provides contrary evidence to the effect that recipient of support enter employment sooner than non-recipients. The insignificance of our result may be due to the disproportionately high number of respondents without experience and who receive family support.

With respect to wages, the results show that individuals with lower accepted wage are more likely to be employed in less than one month while those with higher wage expectations are more likely to enter employment between 1 and 12 months. This is on account of the fact that low wage workers do not discriminate among employment offers. However, the only significant category is GH₵ 1000–1500. If the accepted wage is interpreted as revealed reservation wage, then, the theoretical prediction that individuals with high reservation are prone to long term unemployment is confirmed (McCall, 1970). In the same vein, Jones (1988) found that short spells of unemployment are associated with low wages.

Also, the sector in which the first job is obtained exerts very significant effect (at 1 per cent) in the results. Searching for a job in the private sector enhances the likelihood of being employed in the short term by 25.4 percentage points. The low level of bureaucracy in the hiring practices of private firms as compared to public sector firms explains this result. In Ghana, recruitment into the civil and public service is centralized at the Office of the Head of Civil Service and Public Services Commission respectively. In the medium term, however, job seekers are 20 per cent more likely to gain employment in the public than private sector. Also, individuals who searched in the 2009/2012 period relative to 2005/2008 spent relatively shorter time in generating acceptable employment offer. The stable macroeconomic climate in the period accounts for this observation.

6. Conclusion and Policy Recommendation

This paper attempts to investigate the effect of search intensity on the duration of unemployment in Ghana using a sample of 404 individuals who are already in employment. The ideal data for modeling the duration of unemploy-

ment is that of Labor Force Survey (LFS). However, like many developing countries, Labor Force Survey is unavailable in Ghana. Hence, this paper relies on a retrospective database that is generated from identifiable currently employed workers which is quite appropriate in our attempt to examine the transition process.

In line with our a priori expectation, search intensity is significantly associated with the probability of entering employment. Particularly, using two or more search methods decreases the probability of finding employment in less than 1 month by 11.4 percentage points but raises the prospect of entering employment in the 1–12 months period by 9.8 percentage points. Thus search intensity increases the prospect of gaining employment in the medium term (1–12 months) rather than the short term (less than 1 month).

Other control variables that were found to be significantly associated with the duration of unemployment were educational attainment, age, years of schooling, sector of employment (private sector), family support and the year of employment. Specifically, in the medium term, job seekers are 20 percentage points more likely to gain employment in the private than public sector due to the low level of bureaucracy in the hiring practices of private firms as compared to public sector firms. In addition, recipients of family support are less likely to obtain employment in the short term due to their relatively high reservation wage compared to non-recipients of family support. With respect to wages, the results show that individuals with lower accepted wage exited unemployment sooner than those with relatively higher revealed reservation wage.

The paper provides some policy insight. In order to improve the transition from unemployment to employment in the public sector, the high level of bureaucracy in the hiring practices of the public sector should be addressed. On account of the weak Labor Market Information System (LMIS), we observe that most job seekers are inclined to depend on relatives and other contacts who supply labor services in the formal market. Again, we notice that such media are more successful in producing an acceptable job offer. Hence, persons without such social capital are systematically disadvantaged in the search process. They may be confronted with the twin problem of high search cost and prolong transition time. It is therefore important for policy makers to retool the LMIS and make it more responsive to the dynamics of the labor market.

NOTES

1. This is mainly due to budgetary and logistical constraints.
2. This obviates the problem of sample selection bias.

3. Search effort is measured by the number of search methods used in the search process.

4. The model assumes search is only undertaken while the individual is unemployed and follows the partial equilibrium search model.

5. The risk associated with lending to an unemployed worker is very high. It is therefore rational to assume that financial institutions do not advance credit to such workers. Additionally, the absence of state unemployment income implies that the costs of searching are borne by the unemployed worker.

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