The study examined the effect of rural-urban migration on unemployment tendency, while controlling for other variables. We make use of the instrumental variable approach and probit controlling for endogeneity to determine the relationship between rural-urban migration and unemployment. Cameroon labour force survey is used to estimate our results. Results show that the likelihood of unemployment decreases among rural-urban migrants compared to their rural counterparts who do not migrate. By the same token, holders of primary, secondary and tertiary levels of are less likely to be unemployed relative to their counterparts with no education, respectively. These findings have a number of policy implementations: the government could create an enabling environment for labour markets to work better for the youths seeking employment and could invest rationally on education to enable the youth become self-reliant instead of job seekers through skill development and training.

Keywords: Effects, rural-urban, migration, unemployment, Cameroon

1. INTRODUCTION

Over the last decades, identifying the factors accounting for population intra-national and international movements has underlined the growing body of literature on interregional migration. Grounded on the observation that entry into labour force is the period where geographic mobility is highest, these movements were explained by employment motives (Zax, 1991). Earlier studies provided the basis for the analysis of the links between migration choices and employment. As far as intra-national migration is concerned, individuals migrate in response to a gap between an expected urban and a de facto rural wage (Harris and Todaro, 1970). Based on the observation that urban wages are high and institutionally determined, migrants expect to secure either jobs or better-paying jobs at the destination.

Sjaastad (1962) explained migration decisions as the outcome of human capital investment decisions. This view led to the explanation of labour moves as responses to either interregional wage differentials (Greenwood, 1985) or unemployment differences among local labour markets (Kriaa and Plassard, 1996). The “new economics of migration” added explanatory power to the neo-classical model. It advocated that migration is a collective endeavour enabling rural households to diversify incomes (Stark and Levhari, 1982). In this literature, migrants choose destinations where they are either well connected or have family/community ties (Munshi, 2003). While increasing the probability of migration, these networks are thought to influence the economic returns to migration; although the large empirical literature devoted to the relationship between individual labour market outcomes of migrations have had mixed results.

*Corresponding author: tambi2015@yahoo.co.uk
Both the volumes and patterns of migration have undergone important changes during the last few decades; making migration a critical issue of our times. Since the 1960s, the overall volume of international migrants has doubled. In 2000, the Population Division of the United Nations estimated the total number of international migrants to be approximately, 175 million. Thus, about 2.9 per cent of the world’s population or one in every 35 persons are moving across borders (IOM, 2003). Taken together, migrants would make up the fifth most populous “country” in the world (ILO, 2013). These cross-border movements have been accompanied by the increase in the number of urban resident and for the first time, the percentage of urban residents has gone over that of rural residents.

Africa’s population is very young with more than half aged below 25 years. It is estimated that each year, between 2015 and 2035, there will be half a million more 15-year-olds than the year before (ILO, 2013). Estimates by IOM, 2003 put Africa’s youth population aged between 10 and 24 years at 344.4 million in 2013, representing 31% of total population making the continent the youngest region in the world. Employment appears to be the most principal challenge that youths are facing in the world today and a call for concern to the global economy. The future of Cameroon, Africa and the world at large is in the hands of the youths who are the leaders, engineers, captains of industries and administrators of tomorrow. The future highly depends on the way the youths are motivated in terms of the job market (employment and unemployment), quality of education, health and migration. The young constitute the majority of the Cameroon’s population and present a great labour force, they are characterize by tremendous energy, great hunger for new ideas, discoveries, dynamism, impressive technological savvy and intelligence that can catapult Cameroon in to untold prosperity and stability, in to higher levels of second generation economic activity (agriculture, manufacturing and distribution) as well as serve as drivers and strong engines for economic development of Cameroon.

The youths are the nations’ most valuable asset; they represent a tremendous potential competitive advantage in the global economy, if the youths are given the due opportunity, they can transform Cameroon into a prosperous and productive country that can compete with the rest of the world. Today, the challenge of Cameroon is to provide the youths with opportunities to fulfil their potential and contribute to the development of their nation, African continent and the world at large. Without jobs or meaningful livelihoods options, young people in Cameroon will naturally seek other ways to release their energies, which can be through violence or migration; this has motivated most youths to migrate to the cities from the rural zones.

This study attempts to explore the effect of rural-urban migration on urban youth unemployment in Cameroon. As a result of the rural-urban movement, in 2017 Cameroon fines herself with an unemployment rate of 4% with a population of about 23.3 million people. This revealed that many young people in Cameroon are unemployed; many have completely given-up looking for jobs while others are working but still living below the poverty line, this category is known as the working poor. Most of the barriers to resolving the unemployment challenge in Cameroon includes: (1) the unprecedented economic crisis suffered in the 1990s (2) the educational system of Cameroon which focuses mainly on theories and abstract concepts with little or no training in technology and entrepreneurship, (3) low-quality jobs, (4) skills mismatch, (5) inadequate job matching, (6) the work experience trap, (7) lack of access to capital, (8) little or no entrepreneurship and business training, (9) limited youth participation, (10) social discrimination and corruption, (11) frustration and discouragement, amongst others.
It is also true that the Cameroon government has become aware of the dangers posed by the growing rate of youth unemployment and has made moves in that regards. This can be seen through the Ministries of Youth Affairs and Civic Education and that of Employment and Vocational Training. The programs designed by government via these ministries include the Rural and Urban Youth Support Program known by its French acronym as PAJER-U, the Integrated Project for Manufacturing of Sporting Materials (PIFMAS), the National Employment Fund (NEF) and the Integrated Support Project for Actors of the Informal Sector (PIAASI). All these programs have their success and failure stories. But the bottom line is that, despite all these efforts made by government, a lot more still has to be done. Nowadays, there is a socio-economic and political urgency of responding to the challenge of youth unemployment as a precondition for poverty reduction, sustainable development and lasting peace. It is believed that an essential approach for addressing the challenges of youth unemployment is the need for a national youth policy, an integrated strategy for rural development, as well as job creation.

In Cameroon, the unemployment rate is 30% while that of underemployment stands at 75% (International Labour Organization’s 2013 report). It is worth noting that Cameroon has a population of over 20 million inhabitants and most of the people belong to the middle class. It may interest you to know that the working population of Cameroon is about 12 million and only a little over 200,000 people work in the public service. With government being the highest employer, this implies that the other 11.8 million people who are not government employed are a call for concern. Population growth in Cameroon is rapid in most big towns and cities.

According to statistics, about 92 per cent of the population in Yaoundé is below 45 years. This rapid urban growth brings about social problems which affect particularly the poor and other vulnerable groups in society such as youths. Youth unemployment in Cameroon is compounded by rampant corruption in most employment sectors and young people’s inadequate knowledge on the existing job market and opportunities. As a result of all these problems, we are therefore interested in examining the effect of rural-urban migration on unemployment in Cameroon. To address these issues, the objectives are: to explore the effects of rural-urban migration on unemployment in Cameroon, to verify the effect of rural-urban migration on unemployment by Gender, to evaluate the effect of levels of education on unemployment in Cameroon and to derive policy recommendations on the basis of our analysis.

2. LITERATURE REVIEW

An understanding of the relationship between rural-urban migrations, unemployment-underemployment is known by a clear definition of important elements before reviewing the relevant literature underlying this study. Mcha (2012) in a country level knowledge network in Tanzania noted that unemployment-underemployment have been defined in the literature in different ways. Following the National Employment Policy in 2008 as cited by Mcha (2012), unemployment is the total lack of work of an individual (15 years +); it include enforced idleness for people that are able and willing to work but cannot find jobs (ILO, 2013).

Focusing on rural-urban migration, we observed that rural-urban migration is the movement of people in our case youths of age 15 to 34 years from the rural community in search of better jobs. With regards to migration in Cameroon, the proportion of persons not born in the locality/subdivision where they reside is 32.7 percent (NIS, 2011). However, a slight decrease of migration is noticed compared to 2005 (35.4 percent) while men migrate as well as women at almost similar proportions. Considering NSO (2014) in overall 27 percent of employed
population in Malawi is underemployed. There are little sex differences in levels of underemployment. In urban areas, the percentage of employed population who are available to work additional hour is 24 percent compared to 27 percent in the rural areas (ILO, 2013). However, in terms of age groups, following the Malawi labour force survey, no major differences are observed in the level of youth underemployment between males and females and between rural areas and urban areas. However, while there are little variations in the level of underemployment in age group by educational level, the level of underemployment among the youths in age group 15-34 declines with level of education (NSO, 2014).

With regards to the importance of rural-urban migration and the consequences in the urban centres; Ajaero and Onokala (2013) in examining the effects of rural-urban migration on the rural communities of South-eastern Nigeria, shows that rural-urban migration contributes significantly towards the development of their rural communities through monetary remittances and the involvement of the rural-urban migrants in community development projects. However, Golub and Hayat (2014) documented and analysed the predominance of informal employment in Africa and shows that lack of demand for labour rather than worker characteristics is the main reason for pervasive underemployment. Golub and Hayat (2014) concluded on their analysis of informal employment that improvements in the business climate are the key to boosting investment and technology transfer in labour-intensive tradable industries and thus raising labour demand and employment.

Gimba and Kumshe (2011) in their study on the causes and effects of rural-urban migration in Borno state Nigeria, affirm that in recent years the rate of rural-urban migration as become alarming as more people drift into the urban centres from the rural areas. In their analysis of 150 respondents drawn from Maduguri metropolis indicated that the major causes of rural-urban migration are: search for better education, employment, and business opportunities; due to poverty, unemployment, famine, and inadequate social amenities in the rural areas. Gimba and Kumshe (2011) unanimously accepted that the effects of rural-urban migration are; pressure on urban housing and environment, high rate of population growth in the urban centres, low quality of life, increase crime rate and slow down pace of development of rural areas. In this struggle, Ankrah (1995) also revealed the situation of rural-urban migration in Ghana and suggested that migration has the effect of precipitating major social and behavioural change vis-a-vis committed urbanites who readily adapt to urban life and the situational urbanites that experience greater problems in adjustment to the city.

Reviewing policy issues in relation to rural-urban migration, unemployment; Ankrah (1995) emphasized that the rural youths need the means to stay in their communities with the opportunity to improve their livelihoods and that as agriculture is one of the most promising sectors for rural youth employment, Cameroon governments should prioritize investments and programs in irrigation, water resource management as well as improved agricultural practices in order to expand young rural farmers’ capabilities to produce food and conserve the land’s natural resources while providing the young population with the skills and abilities to increase their rural incomes (Ankrah, 1995).

3. THEORETICAL FRAMEWORK

The economic model of the family as applied by Frijters et al (2008), form the conceptual basis of our analysis of the consequences of unemployment due to rural-urban migration. The family’s objective is assumed to be the maximization of utility that it derives from consuming
the various goods that it produces using inputs of family members’ time and market-purchased goods and services, as well as employment services are viewed as consumption good from which parents derived utility. The family’s level of consumption of employment services depends on the availability to work and the quality of job a youth that migrate from a rural community to an urban community will get (Blau and Grossberg, 1990).

The time spent by youths to study, received professional training, move from the rural to urban centres, do other activities and to search for jobs as well as social amenities such as seeking preventive and curative medical care is an important input into the production of employment (unemployment) in Cameroon. Youths may move from rural centres because of family strife, no land to cultivate or land dispute, health conditions, some youths move because they want to gain township experience, learn a trade or seek better opportunities, invitations by friends and family members. However, there exists other youths who no matter what, they cannot move because of the same reasons as above but in an opposite direction, such as youths with much land, social stability... such youths may actually not have the time to move/migrate or make use of public services designed for workers.

Unfortunately, youths that migrate to the cities and fails to find a job may constitute a real problem in the cities. They will likely increase the rate of juvenile delinquency, insecurity through theft and pick-pocket, environmental congestion and poverty (NIS, 2011). Notwithstanding, youth’s income generating activities increase the level of household resources, which should improve their well-being. Moreover, there is some evidence that youths are more likely than the old to spend their income in ways that improve their social welfare. What then can we say? The net effect of rural-urban migration on unemployment outcomes is an empirical issue.

4. METHODOLOGY OF STUDY

Linking rural urban migration to unemployment, we used the economic model of the family as applied by Frijters et al (2008), this forms the conceptual basis for our analysis of the unemployment consequences of rural-urban migration. Based on these authors, the relationship between rural-urban migration and unemployment can be described within the framework of a simple household production model. Thus, our generic model of unemployment for the youth $i$ that migrated from rural to urban centres is assumed to be as follows: $RUM_i$

$$UE_i = \lambda_i \chi_i + \delta_i RUM_i + \epsilon_{ui}$$  

Where $UE_i$ is a binary variable representing migrants’ unemployment, $\chi_i$ is a vector of household/environmental characteristics (sex of household head, household size, geographical place of residence, pipe borne water, electricity) and migrant characteristics (education, marital status, type of work contract, age group, occupation, employment duration). $RUM_i$ is rural-urban migration and $\epsilon_{ui}$ is a random error term. The coefficient $\delta_i$ is the parameter of primary interest and represents the impact that rural-urban migration has on unemployment. Ordinary least square (OLS) estimates of equation [1] will be reported in the results column, however, this single-equation estimate may be upward or downward biased depending upon the effect that unemployment has on rural-urban migration and on the correlation between omitted variables
and rural-urban migration. For example, if rural-urban migration has a positive impact on unemployment, then we would expect the OLS estimate of $\delta_1$ to be biased upward.

In empirical estimation, the prime difficulty of the two-way causality that comes in the effect on rural-urban migration and unemployment may cause the classical endogeneity problem. To avoid the strong likelihood of this endogeneity bias, confounded by the problem of variables that are missing in the data, we use a two stage least squares estimation approach. Thus, the first-stage equation in this approach is:

$$RUM_i = \beta_i x_i + \alpha_i SA_i + \pi_{1i}$$  \hspace{1cm} [2]

Whereby $SA_i$ is social amenities (availability of pipe borne water and electricity; availability of medical centres), the 2SLS model should capture the causal effect of rural-urban migrated youths for those migrated youths whose migration/movement is affected by social amenities. Importantly, though $RUM_i$ is ordinal, 2SLS estimates of $\delta_1$ can be interpreted as estimating the average marginal effect of a unit increase in $RUM_i$ for migrants whose migration/movement is affected by the availability of medical centre, pipe borne water and electricity.

Ajakaiye and Mwabu (2009) noted that in the presence of endogeneity, a device must be found to vary the ‘treatment variable’ exogenously without changing other unobserved or unmeasured variables with which it is correlated. Such device includes instrumental variable (IV) method, natural experiments and randomization. Implementation of experimental designs are rare in evaluation of broader health and social programmes (Jones, 2007), either because experiments are too expensive, unethical or simply impossible and therefore beyond the scope of this study. This study proposes to use the IV method and the Probit controlling endogeneity approach, popularly known as IVPROBIT approach. Endogeneity can arise due to: errors-in-variables, omitted variables and simultaneous causality (Bascle, 2008). Endogeneity and heterogeneity bias can compromise the validity of OLS estimators. The IV approach is intended to oxygenize the endogenous regressors using valid, relevant and strong instrumental variable method and the most commonly used IV estimation method is the single equation approach of two-stage least squares (2SLS) estimators (Bascle, 2008).

Before presenting the 2SLS estimates, we shall present a reduced form analysis of rural urban migration; here we would expect to observe rural-urban migrants with social amenities to have lower movement/migration, because rural-urban migration is negatively affected by migrants with social amenities on their initial place of residence, there is a high probability that they may not likely move. The result column presents the relationship between social amenities and unemployment, given that 2SLS estimation allows us to scale these Probit marginal effects into the effects on an increase in our ordinal rural-urban migration measure.

Econometrically, the instrumental variable method is used to estimate causal relationships when controlled experiments are not feasible, in other words when a treatment is not successfully delivered to every unit in a randomized experiment (Imbens and Angrist, 1994). This instrumental variable method allows consistent estimation when the explanatory variables are correlated with the error terms of a regression relationship. This may occur when
unemployment causes at least one of the covariates, when there are relevant explanatory variables which are omitted from the model or when the covariates are subject to measurement error. Considering these issues, equation [2] presenting the first stage equation will be computed to obtain equation [3] to capture the second stage least square as follows:

\[ RUM = \beta_2 x_i + \alpha_2 SA_i + \pi_2 i \]  

[3]

We use the social amenities variable as an instrument to overcome the endogeneity problem between rural urban migration and unemployment which cannot be adequately controlled for by observable characteristics. Assuming that social amenities are a valid instrument, we use the IVPROBIT model (probit model controlling for endogeneity) which better respects the binary nature of unemployment as represented by the following equation:

\[ UE^* = \lambda_2 x_i + \delta_2 RUM_i + \varepsilon_{2i} \]  

[4]

Where \( UE_i \) denotes actual unemployment/underemployment and \( UE^* \), represents desired unemployment/underemployment, note that \( UE_i = 1 \) if \( UE > 0 \) and zero otherwise and the error terms \( \varepsilon_{2i} \) and \( \pi_{2i} \) follow a bivariate normal distribution with non-zero correlation. The report of the IVPROBIT model will be presented in the result section. In addition, we can calculate the marginal effects of a variable as the average of the marginal effect of everyone in the sample.

**Treatment Variable for the Endogenous Variable**

The strength and success of the instrumental variable strategy lies in the identification of the instrument with sufficient predictive power. The IV method is one of the most powerful tools in econometrics, since it allows consistent parameter estimation in the presence of correlation between explanatory variables and disturbances (Murray, 2006a). The IV technique is the most widely applied approach to identifying causal or treatment effects and it essentially assumes that some components of non-experimental data are random (Rosenzweig and Wolpin, 2000). The instruments are variables thought to have no direct association with the outcome and are powerful predictors of treatment (Jones, 2007). 2SLS instrumental variable estimation is an effective tool when instruments are valid and strong, otherwise this quality is lost (Murray, 2006a). Stock et al (2002), caution that finding exogenous instruments is hard work.

Finally, Mwabu (2009) mentioned that, three properties of an instrument need to be noted at the outset. First, an instrument is relevant if its effect on a potentially endogenous explanatory variable is statistically significant. Second, an instrument is strong, if the size of its effect is ‘large’. Finally, the instrument is exogenous if it is uncorrelated with the structural error term. An instrumental variable that meets all these requirements is a valid instrument, but often very difficult to find.

We are interested in using social amenities that is the availability of water, electricity and medical centres in urban community. This variable has been confirmed by authors since the seventies. Many other researchers have revealed over the years that people, including the youths migrate for economic and social reasons (Harris and Todaro, 1970). For our provision of social amenities to overcome the potential endogeneity problem between rural-urban migration and unemployment/underemployment: the instrument must be (i) strongly correlated with rural-urban
measures and (ii) uncorrelated with unemployment, except through the rural urban migration (Murray, 2006a). Based on this, two main factors can lead to bias in the estimated impact of rural-urban migration on unemployment: firstly, there are likely to be unobservable characteristics relating to the rural-urban migrants that are correlated with both youth’s unemployment and underemployment.

Two obvious candidates are family links in the ability of family relations and the migrated youth and the extent with which a family member cares about her relation in terms of their wellbeing relative to leaving them in the village or local community. The second source of potential bias arises from the direct effect of unemployment on rural-urban migrants. If unemployment has a negative impact on rural urban migration, then unemployed and underemployed youths will be less developed both economically and socially than un-migrated non-working youths, creating a downward bias on the estimated impact. On the contrary if unemployment has a positive impact on rural urban migration then the estimated impact would be biased upward.

To avoid the individual effect of each migrant youth, we shall use the cluster mean of each instrument, by so doing only the community effect of the migrant will be capture and hence increasing the strength of our instrument on the endogenous variable. It’s also worth mentioning that, our instruments are not directly related to unemployment except through rural-urban migration. Through Sagan and Cragg Donald statistics couple with the ideas of Mwabu (2009), we shall scale the relevance and strength of our instrument, all these will ensure robust results free from bias as compare to former studies.

Data Presentation

In this study, we used the data of Cameroon Employment and Informal Sector survey (CEISS) to compute the effects of rural-urban migration on unemployment concurrently while decomposing the results in level of education. Following the report of the second edition of the CEISS by the National Institute of Statistics (NIS, 2011); the CEISS 2 was realized in 2010 after the first in 2005 by the ministry of Labour and Social Security in collaboration with other ministries. The 2010 CEISS is a two phase national statistical survey with the first phase being survey on employment and second phase being survey on the informal sector. This survey has as objectives to provide to users a set of indicators on (i) the labour market, the conditions of activity and the incomes and (ii) the informal sector and its contribution in the economy, in terms of employments and added value.

The target population of the survey represents 68.7 percent of the overall population; made up of 51.6 percent of women and 48.4 percent of men (NIS, 2011). There are about 34500 observations to be computed, among which we have variables on unemployment, underemployment, migration and other determinants variables. The data can be used to estimate the number of persons in the labour force (employed, under-employed and unemployed) and their distribution by sex, major age-groups, educational level, disability status, geographical and rural/urban spread as well as the ecological manifestations of these. It can equally be used to estimate the number of child workers (or children in employment) aged 5-17 years and its distribution by sex, major age-groups, educational status, geographical, ecological and rural/urban spread etc.
In summary, our outcome variable is unemployment; the potential endogenous variable is rural-urban migration which is captured as the proportion of people who were not born in the locality/division where they live. The instruments of our endogenous variables are social amenities such as: (1) availability of electricity services in urban centres and (2) availability of water for good health. The control/exogenous variables are: age group, gender of household head, education, socio-economic status, occupation, and type of work contract, geographical place of residence, household size and employment duration.

5. EMPIRICAL RESULTS

Weighted Sample Descriptive Statistics

From the preliminary result of the sample descriptive statistics in table one below; obtained from the labour survey year 2010, we observed that in Cameroon, unemployment was at about 8.3 percent. Unemployment occurs when people who are without work are actively seeking work, International Labour Organization (2014). According to International Labour Organization report, more than 200 million people globally or 6 percent of the world’s workforce were without a job in 2012 (International Labour Organization, 2014). About 53.8 percent of the migrants leaving the rural areas for the urban areas are as a result of electricity. Also with regards to water, a slight lesser percentage of people say 41.9 migrate because of that. It also reveals that about 14.8 percent of the rural population move from rural areas to urban areas.

It is also reveal that 77.6 percent of the rural-urban migrants are male and whose age ranges from 0 to 99 years old. Also many people who already have established businesses or enterprises that belongs to them, will find it very difficult to leave the rural area for the urban areas. It will also be very difficult for a person who has more than just one job to leave the rural areas for the urban city. These migrant are coming from families whose size ranges from 1 to 28 persons and with very poor housing conditions. It is also reveal that 33.3 percent of those with primary level of education will migrate from rural to urban towns, 35.7 percent of those who have obtain a secondary level of education will move from rural settlement to urban settlement while 4.6 percent of rural population with tertiary level of education will migrate from the rural areas to the urban areas.

Table 1: Weighted sample descriptive statistics

| Variable of Interest | Weighted Sample Descriptive Statistics |
|----------------------|----------------------------------------|
|                      | Mean | SD          | Min | Max |
| Unemployment         | .0836502 | .0780372  | 0   | 1   |
| Rural-Urban Migration| .1487897 | .3558862  | 0   | 1   |
| Availability of electricity | .5382916 | .4985388  | 0   | 1   |
| Availability of water | .4190933 | .4934178  | 0   | 1   |
| Migrants Gender (1= male, 0 otherwise) | .7764033 | .4166608  | 0   | 1   |
| Status of Work (1= entrepreneur, 0 otherwise) | .1221899 | .3275098  | 0   | 1   |
| Types of work/job contract | .1236886 | .3292308  | 0   | 1   |
| Has other jobs       | .1192924 | .324137   | 0   | 1   |
| Age                  | 21.67216 | 18.14397  | 0   | 99  |
| Household Size       | 6.691668 | 3.938016  | 1   | 28  |
In focusing on the main sample result, the respondents noted that their reasons for migrating are: to work, look for job, for health reasons, for apprenticeship, housing problem, joining family, family problems and retirement. These variable outcomes are indicated in the figure below. This figure reveals that most of the people that migrated from rural to urban did so for family reasons to about 50 percent of the total migrants.

### Basic Marginal Effect Estimates of Rural-Urban Migration

Table three present the results of (a) the OLS result in column one, which can either be bias upward or downward; (b) the instrumental variable result in column two (IV 2SLS) while (c) the probit model controlling for endogeneity in column three (IVPROBIT).

Considering equation one above, the result of the linear regression can either be biased upward or downward depending on the direction of the relationship between rural-urban migration and unemployment effects. Therefore, this OLS result is not appropriate for inference, this explain why the rural-urban migration is insignificant revealing that the value of rural-urban migration is not appropriate for judgment. The 2SLS result solve the problem of endogeneity resulting from the data this can either be from missing variables or omission whereas the IVPROBIT resolve the problem of endogeneity originating from both the data and elsewhere, hence the estimates of IVPROBIT is our preferred result. Further, following the joint F/(p-value) test for Ho: coefficients on instruments = 0/Wald/chi2 of 41.88 [14, 19842; 0.0000] for 2SLS and 605.33 [10; 0.0000] for IVPROBIT reveals that the probit result controlling for endogeneity is preferable, These results are presented in table 2.

### Table 2: Effects of rural-urban migration on Unemployment

| Variable                  | OLS (1)   | 2SLS (2) Unemployment | IV Probit (3) |
|---------------------------|-----------|-----------------------|--------------|
| Rural-Urban Migration     | .0006(0.49) | -.004***(-2.68)        | -.930*(-1.88) |
| Household Size            | -.0009***(-2.66) | -.016***(-2.73)       | -.0456**(-2.18) |
| Household Size Square     | .0029*(1.74)  | -.006***(-5.21)       | .01068(0.85)  |
| Male                      | -.0011 (-1.02) | -.012**(-2.03)        | -.043(-0.74)  |
| Age                       | .0014***(13.95) | 0.017*(1.94)          | .1198***(5.33) |
| Age square                | -.00031***(-12.49) | -.069***(-7.39)       | -.0017***(-4.21) |
| Entrepreneur              | .0111***(7.38)  | 0.000(0.13)           | .4043***(4.05) |
| Primary education         | -.0195***(-8.54) | 0.013(1.48)           | -.4019***(-3.00) |
| Secondary education       | -.02101***(-9.74) | -.055***(-8.63)       | -.2158**(-2.07) |
| Tertiary education        | -.0165***(-7.79) | -.022***(-11.19)      | -.1485*(-1.86) |
| Informal                  | -.025**(-20.75) | -.024**(-2.34)        | 0             |
| Constant                  | .0213***(7.69)  | 0.011***(8.14)        | -.2.611***(-3.00) |
| $R^2$/(uncensored $R^2$)  | 0.8256       | 0.8216                | 0.8411        |
| Partial $R^2$ (on excluded instruments) | n/a         | 416.96[1,19842;0.0000] | n/a           |
From column 1, we can say that rural-urban migrants pave the probability of about 0.13% of being employed more than their rural counterpart who do not migrate. From our analysis above, table one depicts OLS estimate of Unemployment, column 2 represent the 2 stage least square and in column 3, consistent IV estimates of rural-urban migration parameter. We observed that rural-urban migration has no significant effect on unemployment. Also as household size increases, unemployment also increases at 1 percent significant level, the movement of male from rural areas to urban areas have no significant effect on unemployment. There is a positive relationship between age and the unemployment. This implies that as age increases, the rate of unemployment also increases meanwhile many people who are self-employed that is owners of enterprises (sole proprietors) will hardly leave rural areas for urban areas thereby reducing the rate of unemployment which is significant at 1 percent.

The level of education which comprises of primary, secondary and tertiary levels of education has a 1 percent significant on unemployment. The more persons with primary level of education leave the rural areas for the urban areas, the more unemployment will increase. In a similar manner, rural urban migrants with secondary level of education will only end up increasing the level of unemployment. At a given point, migrants with just a higher level of education will also increase unemployment. From our IVPROBIT regression, we realized that rural-urban migration has a direct effect on unemployment at 10 percent level of significant, which also shows that as household size increases, the rate of unemployment also increases at 5 percent level of significant. Unemployment also increases as the people’s age increases. Also as more people do not have their own enterprises or are not sole proprietors, they are force to leave the rural areas for the urban city, as they move to these urban areas, the level of unemployment increases at 1 percent significant level.

**Entrepreneurship effect by the level of Education of the Migrant**

In table 3, we found out that, both the male and female migrants are fuelling unemployment in Cameroon. However, the male migrants seem to be fuelling more as compared to their female counterparts. Further, lesser number of male who left the rural areas to the urban areas because of electricity will be unemployed at 1 percent level of significance. Also a greater number of female who left the rural area for the urban areas because of the housing condition will be unemployed at 1 percent level of significant than male who left the rural areas for the same reason. Many women from large family size who migrated from rural to urban areas was faced with the problem of unemployment at 10 percent level of significant than the men who lift the rural areas for the same purpose at 1 percent level of significant.
Table 3: Effect of level of education on unemployment (Marginal effects)

| Variable                        | Primary (1)      | Secondary (2)     | Tertiary (3)      |
|---------------------------------|------------------|-------------------|------------------|
| Rural-Urban Migration           | 4.5685*** (7.58) | 3.306 *** (27.73) | -2.061 *** (-3.73) |
| Household Size                  | .10485 (0.98)    | .01833 (0.93)     | -.0588 (-1.12)   |
| Household Size Square           | -.00946 (-1.00)  | -.00017 (-0.21)   | .0039 (0.97)     |
| Male                            | .0213 *** (7.69) | -.0123 (-0.27)    | -.0093 (-0.10)   |
| Age                             | -.00969 (-1.64)  | -.0141 *** (-5.10)| -.0194 (-1.49)   |
| Entrepreneur                    | .8242283 (1.39)  | .0514861 (0.37)   | .1683337 (0.74)  |
| Housing                         | -.31802 (-1.87)  | -.1058 ** (-2.12) | .1061 * (1.86)   |
| Constant                        | -1.568 (-1.38)   | -.9403 ** (-2.74) | -.01798 (-0.05)  |
| Pseudo $R^2$                    | 0.08256          | 0.08216           | 0.08411          |
| Wald/chi2 test                  | 798.84 [6; 0.0000]| 3311.22 [7; 0.0000] | 118.20 [7; 0.0000] |

**Observations:** 34500

Source: Computed by the author from Labour force Survey 2010 Cameroon.

More female who left rural communities for urban communities will face unemployment than males of the same age bracket which is seen at 1 percent level of significant. Our statistics also shows at 1 percent significant that among those male who were self-employed and left the rural area for the urban areas, very few of them had employment and for the female who were already self-employment in the rural area and left for the urban area, more of them will be faced with unemployment which is significant at 10 percent. Our results also shows that more male migrants from rural to urban areas who have just the primary level of education will be unemployed at 5 percent level of significant as well as rural-urban male migrants but at 10 percent level of significant.

6. CONCLUSION

The main objective of this study was to examine effect of rural-urban migration on unemployment tendency. The study was conducted in Cameroon following increasing number of rural-urban migrants. Data would be obtained from the labour survey 2010. From the preliminary result of the sample descriptive statistics obtained from the labour survey year 2010, we observed that in Cameroon, unemployment was at about 8.3 percent.

From the findings above, it can be concluded that rural-urban migration has a significant effect on decreasing unemployment in rural areas of Cameroon. An important conclusion of the results is that rural urban migration, household size square, household age and status of work, positively decrease unemployment in Cameroon while household size, male, household age square, primary, secondary, higher and informal education increases unemployment in Cameroon. We observed that in Cameroon, unemployment was at about 8.3 percent. In focusing on the main sample result, the respondents noted that their reasons for migrating are: to work, look for job, for health reasons, for apprenticeship, housing problem, joining family, family problems and retirement. Finally, democracy is a journey not a destination. For Cameroon, it is a learning process. As a matter of fact it may not be a perfect system of government, but it has several advantages over other systems. People including the Cameroonian must feel the positive
impact of democracy in their lives. The situation whereby only a few privileged persons in positions of authority benefit from this system of government at the expense of the impoverished masses portends a great and real danger that may incur the wrath of the unemployed citizens in Cameroon if not addressed urgently. Cameroon leaders should strive to promote good governance in other to engender rural empowerment, employment and socio-economic development.

In terms of policy, strengthen of existing institutions by appointing decent people to head them, respect their tenure and appoint successors rather than political appointee. Investment in education (vocational training school): government should invest heavily on education, education that will enable the youth to become self reliance instead of job seekers through skills development and training in the rural areas. Infrastructural building that will provide employment to thousand people such as good roads, electricity, provision of portable drinking water etc should be embarked upon by the government of the day. Create labour market that work better for the youth and promotion of conducive atmosphere for investment in the rural. Future research could be undertaken in the following domains: urban youth unemployment and underemployment in Cameroon: role of rural-urban migration.

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