



Research Paper

Determinants of Rural-Urban Migrants' Employment Choices in the Urban Labor Market: A Study from selected Cities in Central Oromia, Ethiopia.

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Abstract

This study investigates the determinants of rural-urban migrants' employment choices in the urban labor market in central Oromia cities, Ethiopia. The study used a cross-sectional data obtained from rural-to-urban youth migrants, and it estimated multinomial logistic regression to analyze the data. For this purpose, after the urban labor market had been categorized into five urban employment segments, a multinomial logit model was employed to identify factors determining migrants' job choices from these employment segments. The finding reveals that a migrant's sex and his/her parent's annual income have positive significant effects on all employment segments. Migrant's marriage, information deficiency on job availability, being from small urban area, and father's occupation have significant positive effects on self-employment, while lack of a city's identification card for the immigrant and dispute in the city have significant negative effects on the segment. Migrant's duration of living in cities, information deficiency on job availability, and father's education and occupation have significant positive effects on informal private-employment. On the contrary, marriage, household size, and lack of identification card have negative impacts on the segment. A migrant's age, preparatory schooling level, university education, access to registration, and advisory services in the city have significant positive effects on both (private and public) formal employments. The paper has made conclusions and drawn policy implications for possible interventions to urban labor market constraints.

1. Introduction

Migration as a human movement between and across continents and regions is a relatively old-rooted phenomenon in the world's history. It is part of the permanent process of change of every society and has always been an inherent contributor to, and a result of, structural transformation. The progressive shift of humankind from rural societies to city dwellers has been driven by a continuous process of migration, which has been accelerated worldwide over the last two centuries (Mercandalli et al., 2019). However, in recent years, this

human mobility has become a main concern at international, national, and local levels of economic development. One type of this mobility is people's internal migration within their national territory. It is characterised by rural-to-urban movement particularly in developing countries. Moreover, the rapid and massive increase in rural-to-urban migration, mostly young migrants' inflow to the city centres, has recently drawn the attention of stakeholders to the welfare of migrants in urban areas of developing countries.

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According to the economics of migration, migration has benefits and harms to both sending and receiving regions (Jonathan, 2019). Migrants can make significant contributions to host economies through labour supply, entrepreneurship, and consumption demands and to sending regions through remittances to their welfare. The economic gain for destination areas is due to the fact that incoming migration raises demand for basic commodities and increases the supply of labour force, which in turn increases employment, production, and is thus useful to the local economy. Despite the positive effects of migration, particularly in urban areas, city administrators and the policymakers usually believe that unprecedented levels of urbanization characteristics in most developing countries due to inflows of people have resulted in burdens to local administrations and municipalities in urban areas. The impact can manifest itself in the form of economic burden, formation of slums and informal settlements in cities and urban areas (Kibret, 2014). In this regard, proper management and efficient utilization of young migrants is essential for a developing country like Ethiopia.

Ethiopia is the second most populous country in Sub-Saharan Africa (SSA) with predominately youth population (UN, 2021). Like other developing countries, Ethiopia has been facing increasing challenges related to internal migration, which is becoming an image that distresses developments in urban centres. Arguably, rural-to-urban migration is a principal component of rapid and unplanned growth of population in towns and cities in Ethiopia, coupled with the country's recent population growth. As internal mobility is not restricted by any explicit laws or policies, recent reports show that rural-to-urban migrants are rapidly moving to cities expecting better job and service opportunities as compared to rural areas (Nganwa et al., 2015). Despite the positive effects of migrants' contribution to urban economic development, Ethiopia's urban centres have become more worried about the potential negative impacts of incoming migrants such as shortage in providing basic services, pressure on job provision, and informal business formation (which in turn contributes to risks in the formal business sector).

Currently, with most internal migrants coming to cities from rural areas, many migrants are facing

difficulties partly linked to situations that explicitly or implicitly disadvantage them at the host city's vicinity. This situation is associated with high urban youth unemployment, which is partly linked to the lack of urban labour market accommodation mechanisms. These mechanisms may include providing job search assistance and migrant-oriented support services (accommodation, training opportunities, convenient work environment, credit facilities, etc.). Furthermore, the rural-to-urban migration is substantially complicated by the difficulty in obtaining urban registration or getting ID cards and, consequently, difficulty in accessing certain public services, coupled with the negative attitude of local authorities towards migrants (Nganwa et al, 2015). In combination with other factors emerging in recent years, notably the increase in rural-urban income gap, population growth in rural areas has led to a tremendous increase of migrants facing joblessness in major cities. . Hence, special attention has been paid to how migrants fare in the urban labour market and particularly to how urban labour markets accommodate the inflow of these working-age migrants. The capacity of the urban economy in absorbing the economically active incoming urban labour force needs to be assessed regularly and appropriate employment policy implications should consequently be adopted.

In this regard, despite the complexity of city life with many challenges and limited opportunities for migrants, the labour market situation of urban migrants has not been well explored and the different coping strategies are seldom known. In view of this, this study aims to inquire how rural-to-urban migrants participate in urban labour market in cities by categorizing urban labour market into urban employment segments so as to identify and look into what determines the choice of urban employment segments. Several studies have examined rural-to-urban migration in Ethiopia (De Brauw & Mueller, 2012 and de Brauw et al., 2013a). However, to the best of our knowledge, most migration studies in Ethiopia lack information on the outcomes of migrant labour market in urban areas and its determining factors. Thus, with a view to addressing this research gap in Ethiopia and contributing to the labour market literature, this study estimated an econometric model to investigate determinants of migrants'

employment choices in urban labor market. To this end, the study uses cross-sectional data obtained from rural-urban youth migrants in central Oromia cities, Ethiopia.

2. Methods of the study

2.1. Conceptual framework: Labor force participation model

Consider urban labour market as an economy pertaining mainly to three types of economic activities or production units: the formal sector, informal sector, and household units. The formal sector is regulated and protected by law and it includes most decent jobs, whereas the informal sector is unregulated and unprotected (Baffour, 2015). The rural-to-urban migrants of working age supply their labour to the urban labour market or to produce their own production formally or informally depending on their indirect utility maximization and individual background. Consider a small closed economy with competitive urban labour employments categorized into five employment segments as: (1) self-employment segment in formal or informal sectors, (2) informal employment segment in private small businesses/ enterprises in formal or informal sectors, (3) formal employment segment in large private companies/enterprises in the formal sector (4) formal employment in public enterprises/offices in the formal sector, and (5) unemployment state or daily/casual wage labor in formal or informal sectors or in household production units.

A standard choice model based on the comparative advantage hypothesis (Johansson, 2000) in which these potentially risk-adverse young migrants choose to be in one of these five segments, argue that the choice between employment sectors depends on the difference in utility between the segments. Hence, a migrant would choose one of these segments (say segment j) if her/his expected utility, measured by the expected income, exceeds that of all other alternatives. If someone cannot find a favoured segment job, the utility of such a sectorial job will be small. Thus, winning her/his choice of segment j reflects both rationing and preference. Hence, the employment segment selection and, as a result, income effects are indirectly reflected through, for example, individual intrinsic and familial characteristics (gender, age, marital status, family size) and human capital variables effects.

Thus, participation decision in the labour market is assumed to be a function of variables that influence a person's expected offer wage and reservation wage. An individual chooses to enter the employment segment if the offer wage is greater than the reservation wage. Human capital variables are expected to influence the offer wage and, hence, the segmental/sectorial selection, while individual characteristics may influence the reservation wage by affecting productivity in the home and demand for leisure. Now, consider an individual migrant whose income is mainly allocated to consumption materials. Let U_{ij} represent utility of the j th choice to the i th individual. If a migrant is employed in one of the alternatives, say the formal (f) employment segment, her/his utility from this segment - would be defined as: U_{ij} , where $i = 2, \dots, N$ is an index for a migrant; U is the migrant's utility; H is migrant's human capital variables; M is migrant's individual intrinsic and familial characteristics, and W is a gross income of migrant from the employment. Similarly, if she/he is working in the self-employment segment or other employment segments in the informal (I) employment, her/his utility - can be written as: U_{ij} .

In general, the utility of a migrant in the whole urban labour market economy can be expressed as: $U_{ij} = U(X, H)$; where X is other demographic, socioeconomic, and familial characteristics of an individual, J represents the different employment alternatives and $j \in [1, 2, 3, \dots, J]$. Hence, assuming utility is non-negative, $U_{ij} > 0$; for a given level of human capital and other characteristics, if a migrant is already in an alternative j employment providing consistent income and social advantages, the marginal utility (U_{hh}) for reaching a better alternative should be declining. Thus, under the assumption of rational migrants, as the level of human capital of the migrant, say the level of education, is not changing, given other characteristics, the marginal utility of alternative j is decreasing in the level of $H \rightarrow U_{hh} = \frac{\partial U_{ij}}{\partial h} \left(\frac{\partial U_{ij}}{\partial h} \right) < 0$

However, as the level of education increases, the chances to access a better employment in the alternative j increases as well. Therefore, the marginal utility associated with the progression toward this better employment segment may tend to increase; thus, the

marginal utility of alternative j is increasing in the level of H $\rightarrow U_{hh} = \frac{\partial U_{ij}}{\partial h} \left(\frac{\partial U_{ij}}{\partial h} \right) > 0$.

Similar arguments can be made also for other variables.

2.2. Empirical framework: Multinomial logit model

We are, therefore, modelling the employment segments as multi-categorical outcomes by focusing on the way in which migrants' demographic, human capital, and other individual characteristics influence their decisions to participate in any of these urban labour employment categories. Hence, for such a case where more than two categories of exclusive choices in the dependent variable (DV) are possible, a multinomial logit (MNL) model is more appropriate (Durbin and McFadden, 1984). When one fits such a model, as discussed above, the DV would have, say 1, 2, 3, ..., J possible outcomes; it exists more than one solution to $\beta_1, \beta_2, \dots, \beta_J$ that leads to the same probabilities: P_1, P_2, \dots, P_J and thus the model has not an identified solution. Hence, for identification, it requires normalization; one of the possible categories, say β_j , should be defined as a base/reference category to be constant. This is achieved by arbitrarily setting one of the β_j elements (let this $\beta_j = \beta_1$) equal to zero, so that the remaining $\beta_2, \beta_3, \dots, \beta_J$ measure the change relative to this reference category. Hence we can think of the problem as fitting J-1 independent equations, and the J-1 outcomes are regressed vs. the reference category, to describe the relationship between the DV and the independent variables. Now as disused above, job preferences are described functionally by well-behaved utility function, U_{ij} . Hence, if U_{ij} is the maximum utility attainable for an individual i and if he/she chooses participation in alternative j supposing this indirect utility function can be decomposed into two and can be written as:

$$U_{ij} = S_{ij} + \varepsilon_{ij} \quad (1)$$

Where S_{ij} is a non-stochastic component and itself a function of observed variables ($S_{ij} = \beta_j X_i$) and ε_{ij} is a stochastic component.

Thus, this indirect utility function could yield an empirical specification of the form:

$$U_{ij} = X_{ij} \beta_j + \varepsilon_{ij} ; i=1,2,3,\dots,N ; j=1,2,\dots,J \quad (2)$$

Where: N is the sample size; J is the number of employment segments; X_i is a K x 1 vector of explanatory variables; β_j is a K x 1 vector of parameters to be

estimated for choosing j^{th} employment. Hence, if the error term ε_{ij} is mutually independent with a distribution $\varepsilon_{ij} \sim N(0, \sigma_\varepsilon^2)$, McFadden, 1973, we describe the MNL model as a function of individual migrant characteristics. Now suppose the DV (Y_i) in equation (3) represents the nature of an individual's current job status in any of the five employment segments: the unemployment state or daily laborer/casual worker ($j=1$), the self-employment segment ($j=2$), the informal employment in private enterprises ($j=3$), the formal employment in private enterprises ($j=4$), and the formal employment in public offices ($j=5$); the conditional-probability that a migrant i choose a particular employment category j , is MNL model as a function of explanatory variables X_i is expressed as:

$$\ln \frac{\Pr(Y_i = j)}{\Pr(Y_i = 1)} = \sum_j \beta'_{jk} X_{ik} ; j = 2, \dots, J;$$

that is the general form of a MNL model,

which can be written in terms of the original probabilities P_{ij} rather than the log - odds, as :

$$P_{ik} = \text{prob}(y_i = \text{segment}_k) = \frac{\exp(x'_i \beta_k)}{\sum_{j=1}^J \exp(x'_i \beta_j)}$$

for $i = 1, \dots, N; j = 1, 2, \dots, J; \text{ for any segment}_k$

Hence, if the first category is set to be the reference category, so that the coefficient vector for the first choice, β_1 , is a null vector by normalization; then, we obtain a predicted probability for the reference category, and J - 1 predicted probabilities for each non-referenced category, relative to the reference category, as in (4) respectively.

$$\Pr(Y_i = 1) = \frac{1}{1 + \sum_{j=1}^4 \exp(x'_i \beta_j)} \quad \text{for } j = 1, 2, 3, 4, \dots, J; \text{ for a reference category} \quad (4)$$

$$\& \Pr(Y_i = J) = \frac{\exp(x'_i \beta_j)}{1 + \sum_{j=1}^{J-1} \exp(x'_i \beta_j)}$$

$j = 1, 2, 3, 4, \dots, J \text{ for non - reference category}$

However, the parameter coefficients obtained in the logistic estimation (the MNL model) composed of their sign serve to provide a sense of direction of the effects of covariates on participation and sectorial choice in the labour market, cannot be used for magnitude of impact analysis, but in terms of their relative risk ratio or

marginal effect (Greene, 2007). Hence, to examine the magnitude of impact, we have to calculate marginal effects (ME) of the covariates on the probability of participation in each employment category, evaluated at the sample mean. The marginal effects of the explanatory variables are given by:

$$ME = \frac{\partial P_j}{\partial x_k} = P_j \left(\beta_{jk} - \sum_{j=1}^{J-1} P_j \beta_{jk} \right) \quad (5)$$

The marginal effects measure the expected change in probability of a particular choice being made with respect to a unit change in an independent variable from the mean (Greene, 2007).

2.3. Data of the study

The population of the study encompasses rural-urban youth migrants aged 15 – 30 who came to the urban study areas and have been living in the target cities for at least the last six months and at most for the last five years. We used a cross-sectional survey data collected from two urban centres in the central Oromia, namely, Adama and Bushoftu-Dukem cities, from May 12 – 27, 2021. The age of the migrants and their duration of living in the cities were purposively restricted to address Ethiopia's recent youth migrants' manifestations in urban canters, as guided by a review of related literature (Wambui, 2010; Doğrul, 2012; and UNDESA, 2008). It is argued that different global and regional organizations, governments, and researchers in different countries adopted and used various age ranges in defining the term "youth" from the standpoint of their goals and activities (UN, 2013). The UN secretariat/UNESCO/ILO considers youth as persons between 15 – 24 years, while the UN-Habitat extends the upper limit to 32. The African Youth Charter considers a cohort of people aged 15 – 35 as youth. The Ethiopia National Youth Policy defines youth as regiment of the society who are between 15 – 29 years (Ministry of Youth, Sports & Culture, 2004). Accordingly, the present study adopts this national definition by extending the upper limit to 30 years. In line with Ethiopia's national youth policy (FDRE, 2004), the study defines the term "youth" as those individuals in the age group 15 – 30.

We used a multistage purposive, stratified, and random sampling technique to guide the sampling process. At the first stage, we purposefully selected the

labor-intensive industry hubs in the country, namely, Adama and Bushoftu-Dukem cities. Then, taking into account the engagement of migrants in economic activities, we clustered the urban labour market purposively into five employment segments: the self-employment segment in informal or formal sectors, the informal employment segment in small private-owned businesses in informal or formal sectors, the formal employment segment in private enterprise/companies in the formal sector, the formal employment segment in public enterprise in the formal sector, and the unemployment state or daily labor /casual work in the informal or formal sectors.

Lastly, after we distributed the sub-samples purposively and proportionally for each segment and further dispersed them proportionally to each city, we randomly surveyed the migrants from each cluster using a survey questionnaire. The survey instrument contains basic information on migrants' demographic, socio-economic and parental characteristics, and business environment. The samples were selected by the availability sampling method out of the initial 1000 proposed sample migrants assigned to the target cities in proportion to their anticipated migrant population; and who has identified as being employed in any of the five employment segments. The data were collected by trained data collectors or enumerators who were selected based on their experience and academic merits. Accordingly, these enumerators were deployed to various places in the selected cities and gathered information from a total of 935 migrant respondents under close monitoring of supervisors. Finally, a total of 883 participants' observations were identified due to the removal of missing/incomplete samples at the data inspection and screening stage. Agriculture is the main source of revenue in the Gumer District. The district comprises a largely diversified farming system that includes field crop production (which includes Enset, Eucalyptus tree, barley, bean, pea, and wheat as the main economic activities and livestock rearing (cattle, goat and sheep) as the second most important economic activity in the district. The major vegetables grown in the area are potato, cabbage, garlic, onion, endive, beetroot, carrot, and many more. The data obtained from FAO (1991) shows the soil type in the district is mainly Cambisols and Plinthosols.

2.4. The study variables

Several studies on labour market in developing countries, including Ethiopia, have pointed to demographic and socio-economic characteristics of individuals, business environment, and government policies as the main determinants of migrants’ participation in urban employment segments (Muhdin, 2016, and Millàn et al., 2010). However, the effect of these factors varies in time and space depending on specific situations in the study area/country, making it imperative to test the effects of these factors also in this study area. Accordingly, based on the theoretical background and empirical results from different studies on rural-to-urban migration and migrants’ labor market participation carried out in different countries, including Ethiopia (Wambui, 2010; Shonchoy and Junankar, 2014; Kibret, 2014; Msigwa and Kipessa, 2013), the following explanatory variables were hypothesized and fitted to assess their influences on migrants’ participation in urban employment segments: migrants’ demographic and educational characteristics, migrants’ parental characteristics and migrants’ socio-economic factors in the city.

3. Results and Discussion

3.1. Descriptive results

The sample descriptive statistics for the relevant variables is presented in Tables 1 to 5. As can be seen from table 1, out of the sampled migrants, 59% were males and 41% were females. About 69% of the migrants were from Adama city, while 31% of them were from Bushoftu city. In terms of their birthplace, about 54% were from rural areas, while 46% were from small urban areas in the country. The average age of the migrants is about 25 years, and the range is 15-30 years (table 2). The migrants have lived in the cities for about 3.26 years on average, with a range of six months to five years. At the time of the survey, about 33% of the migrants were already married and the average size of the migrants’ household was two. Regarding the distance between migrants’ birthplace and their current destination, they travel an average of 203.8km from their birthplace. The descriptive result shows that the longest distance travelled is 900km by a migrant from the Tigray region in the northern Ethiopia, while the shortest is 10km from Oromia. Some of the migrants did migrate in steps to their intended cities of destination. In other words, they had previous migration history before they came to their present destination.

Table 1 Migrants’ birthplace and cities of their destination

Sex	Within	Birthplace		City of destination		Sum
		Rural	Urban	Bushoftu	Adama	
Female	City/birthplace	40%	41%	37%	42%	41%
	Within sex	53%	47%	28%	72%	
Male	City/birthplace	60%	59%	63%	58%	59%
	Within sex	55%	45%	32%	68%	
Total	Sample	54%	46%	31%	69%	100%

Source: Own calculation

Table 2 Migrants’ demographic characteristics

Variables	Mean	SD	Min.	Max.
Age	24.65	3.53	15	30
Household size	1.89	1.49	1	10
Duration of living in city	3.26	1.45	0.5	5
Distance to birthplace	203.80	174.66	10	900
	Percentage		Percentage	
Migration experience	17%	Married	33%	
Lack of city’s ID card	30%	Received credit	34%	
Job information deficiency	29%	Organization membership	45%	
Skill/profession mismatch	13%	Faced dispute	56%	
Access to social network	53%			

As a result, 17% of them had migrated to another area before their current destination, while about 10% of them had migrated to more than one town/place before they came to these cities. About 53% of the migrants have obtained assistance from their social network contacts such as family members or relatives, close friends, or co-workers in the city. Nearly 80% of the migrants had spent considerable time before getting a job. For 30% of them, this was due to lack of city’s ID card. For 29% of them, it was due to lack of information on urban job availability. However, few of them had access to credit services from informal sources. Regarding their challenges, 56% of them reported various challenges such as disputes with local youth/community members, sex-related abuses, mental or physical health problems, robbery or theft problems, and insecurity in their residential area & workplace. Most of the self-employed migrants have no workplace to run their own-account business. Of this group, 34% of them have been running their own-businesses by renting rooms from private owners, 24% on the main streets, and 16% by moving from place to place. The rest were running their own businesses around residential areas and at informal market places (locally known as ‘guliti’). Regarding educational status of the migrants as can be seen from table 3, the majority of them have attended at least primary level of formal schooling. About 90% of them have attended formal schooling ranging from primary to tertiary level, with an average of 11years of schooling. About 21.51% of them have attended primary level formal education (i.e., junior secondary or below schooling, i.e., grade 1–8); 36% of them have attended senior secondary schooling, (grade 9 & 10); 27% of them have attended preparatory or TVET schooling, (grade 11 & 12 or TVET training), and 15% of them have completed university education.

With regard to the educational and economic background of migrants’ parents (table 4), the average household size is seven. About 48% of the migrants’ mothers have received formal schooling, of which

42.12% have attended secondary school or below, and 5.78% have attended preparatory school or above. Likewise, about 62% of migrants’ fathers have received formal education, of which 48.7% have attended secondary school or below, while 12.92% have attained preparatory school or above. Occupationally, about 78.71% of the migrants’ fathers are engaged in farming, while 88.34% of their mothers are housewives. About 82% of parents own an average of 2.63 hectares of farmland. . On average, the migrants’ parents earn a yearly income of 27,035 birr, with a range of 800 to 1million birr.

As can be seen from table 5, the summary statistics shows that more males than females are likely to be employed in all employment segments. As a result, males make up the majority (68%) of the unemployed or daily labourers, followed by 60% of informal employees in both private enterprises and formal public employees, as compared with 53% of the self-employed. It is interesting to notice occupational accommodation of migrants by formal and informal sectors of the economy. When we look at the distribution of migrants over these sectors, we can see that 63.53% of the migrants are employed in the informal sector (in informal daily labours or informal self-employment or informal private-employment), while 28.43% are engaged in the formal sector (in private or public employments). Most of the informal daily labourers are labour providers (presumably some of them as unskilled workers) in the form of instant labourers, technicians or construction workers, barbers, and brokers. The self-employed are concentrated in retail trade, construction and market-oriented production activities, transport activities, and service activities such as shoeshine, street vending, and petty trading. In the self-employment segment, some female migrants are engaged in retail trade, but the overwhelming majority of them are engaged in street coffee vending and selling some foods and related items.

Table 3 Migrants’ educational level

Sex		Junior secondary or below schooling	Senior secondary schooling	Preparatory or TVET schooling	University degree
Female	Within level	39%	43%	43%	33%
	Within sex	22%	38%	28%	12%
Male	Within level	61%	57%	57%	67%
	Within sex	23%	35%	25%	17%
Total	Within sample	22%	36%	27%	15%

Table 4 Educational and economic background of migrants’ parents

Variables	Mean	SD	Min.	Max.
Household size	6.75	2.70	1	24
Farmland size	2.63	2.94	0	25
Annual income	27,035	46,547	800	1,000,000
	Percentage		Percentage	
Father’s schooling (secondary school or below)	0.49%	Father’s occupation (farmer)	79%	
Father’s schooling (preparatory school or above)	0.13%	Mother’s occupation		
Mother’s schooling (secondary school or below)	0.06%	(housewife)	88%	
Mother’s schooling (preparatory school or above)	0.42%	Farmland ownership	82%	

Table 5 Summary statistics of urban employment segments

Sex		Informal Self-Emp.	Informal Private-Emp.	Formal Private-Emp.	Formal Public-Emp.	Unemployed/ daily labourers
Female	Within category	47%	45%	40%	40%	32%
	Within sex	30%	21%	19%	9%	21%
Male	Within category	53%	55%	60%	60%	68%
	Within sex	23%	18%	19%	9%	31%
Total	Within sample	26%	19%	19%	9%	27%

The informal private-employed are café, restaurant, and hotel workers, shop salespersons, transport operation backers, guards in private businesses or household units, and house workers. The formal private-employed are mostly workers in private companies/factories, while formal public employees are government, union, PLC, and co-operative workers.

3.2. Econometric results and discussion

Parameter estimates from the MNL regression - coefficients and their statistical significance with robust standard errors and the marginal effect estimates are presented in Table 6. The data were checked with econometric diagnostic tests, whose result verified that there were no econometric diagnostic problems in the model. Moreover, we used the robust standard errors to avoid/diminish effects of heteroscedasticity.

We considered five labour market outcomes categorized as employment segments: informal self-employment, informal private employment, formal private employment, formal public employment, and the unemployment or daily labourers, with the last outcome taken as the base/reference category. Consequently, we obtained robust estimates for the four categories relative to the reference segment. The model result shows that most of the parameter estimates are of expected sign and

different from zero at 5% or lower significance levels. The result reveals that the model fits significantly better than an empty model. This indicates that the urban labour market in the study area is heterogeneous and the decomposition of the labour market into employment segments is appropriate. The overall model is significant at 1% level and the pseudo R2-indicates that most of the explanatory variables have significant effects on migrants’ choice of employment segments. This means that a one-unit increase in respective variables could increase or reduce the likelihood of a migrant to be employed in the same unit according to the sign of the corresponding coefficients and magnitude of marginal effects, ceteris paribus, relative to the reference segment. Estimates of the probability of employment choice are interpreted and discussed for all categories but only relating to the specified categories of employment that are statistically significant using marginal effects (MEs) as in columns (2), (4), (6) and (8), respectively (see Table 6), relative to the reference segment.

3.3. Migrants’ demographic & educational background

Empirical result reveals that being female has a positive significant effect on all employment segments (all at 1%). The positive effect implies the

availability of opportunities for female migrants to be employed in all employment segments relative to their male counterparts. The corresponding marginal effect indicates that being female increases the likelihood of being employed in the self-employed, informal private, formal private, and formal public employment segments by 6.2%, 7.3%, 0.1%, and 2.6%, respectively, *ceteris paribus*. Moreover, though the coefficients of sex (female) appear to have similar sign across the four segments, the effect of being female exhibits in informal employment sector about 3 times higher than in formal employment sector. Thus, for female migrants, the relative probability of working in informal employment sector is higher than the chance of working in the formal sector.

A migrant's age has a positively significant effect on the formal public employment segment at 1%. The positive significant coefficients suggest that older migrants have higher employment probability in the formal public sector than their younger counterparts, *ceteris paribus*. MEs result evinces that a one-unit increase in the age of a migrant resulted in an increase of the likelihood of being employed in the formal public segment by 0.6%. This result is in line with a finding in a similar study by Gherbi and Adair, 2020. Marriage is positively significant to the self-employed employment segment and is negatively significant to the informal private employment segment at 10% in each case. Hence, the MEs shows that marriage would increase the relative probability of being employed in the self-employment segment by 10%, while it decreases the likelihood of being employed in the informal private employment category by 13.3%, *ceteris paribus*.

A migrant's household size influences negatively and significantly the informal private employment segment at 5%. The MEs estimates show that a one-unit increase in a migrant's household size decreases the probability of being employed in the informal private employment segment by 2%, relative to the reference segment. This anticipation may reinforce the likelihood that employers in general, and the informal private employment employers in particular, are less willing to employ migrants who have larger family size, possibly with pre-school age children in the migrant's family (which is supported by

insignificant negative effect of the variable 'migrant's child dependency ratio'). This could be because married migrants, as opposed to unmarried migrants, are more likely to work in self-employed sectors, while the same migrants are less likely to work in the informal private employment segment.

Empirical result exhibits that most of educational variables are positively related to all employment segments. However, the significant level and the magnitude of the effects of migrants' educational level vary by employment category. Senior secondary schooling has a negative significant effect on the formal public employment segment at a 10%. Hence, having secondary education decreases the probability of being employed in the formal public employment sector, compared to having a primary education or no education at all, *ceteris paribus*. As the ME estimate shows, completing senior secondary schooling would decrease the probability of being employed in the formal public employment segment by 4.8%.

On the other hand, having preparatory or TVET schooling and university education has positive significant effects on the formal private and formal public employment segments at 5%. The corresponding ME indicates that an additional year of preparatory or TVET schooling increases the probability of being employed in the formal private employment and formal public employment by 10.7% and 2.9%, respectively, *ceteris paribus*. The MEs estimates show that an additional year of university education increases the probability of being employed in formal private and public employment segments by 10.8% and 7.8%, respectively. The finding is consistent with the finding of Aynalem et al., (2016).

3.4. Migrants' parental characteristics

With regard to the educational status of a migrant's parents, the father's secondary or below schooling is associated positively significantly with the informal private employment segment at 10%. Hence, as the ME estimate shows, a migrant whose father has attended secondary schooling or below is 7.8% more likely to be employed in the informal private employment segment, *ceteris paribus*. Parents' household size affects the informal private

employment segment negatively and significantly at 1%. The MEs show that an additional number of parents' household size would result in less likelihood of employment in the informal private employment segment by 1.5%. With regard to

occupation of the parents of a migrant, the result indicates that those migrants whose parents are farmers are associated positively significantly with the informal self-employment and informal private employment segments at 1%.

Table 6 Multinomial logistic regression result

Explanatory variables	Self-account Employment		Informal-Private Employment		Formal-Private Employment		Formal-Public Employment	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Coefficient	M.E.	Coefficient	M.E.	Coefficient	M.E.	Coefficient	M.E.
Migrants' demographic and educational background								
Sex (female)	0.801***	0.064	0.816***	0.075	0.488**	0.002	1.158***	0.024
Age	-0.01	-0.003	0.008	0.000	0.001	-0.001	0.181***	0.006
Marriage	0.535*	0.100	-0.577*	-0.133	0.29	0.052	-0.23	-0.009
Household size	-0.1	0.001	-0.196**	-0.020	-0.19	-0.016	-0.17	-0.002
Child-dependency ratio	0.59	0.057	-1.114	-0.178	-0.59	-0.178	1.655	0.049
Migration experience	-0.35	-0.032	-0.567	-0.084	0.17	0.072	-0.77	-0.021
Senior 2 ^{ry} schooling	0.15	0.002	0.306	0.036	0.44	0.060	-1.199*	-0.048
Preparatory/TVET educ.	0.02	-0.039	0.114	-0.023	0.751**	0.107	1.032**	0.029
University degree	0.18	-0.045	0.412	0.001	0.948**	0.108	2.582***	0.078
Migrants' parental characteristics								
Father's 2 ^{ry} schooling	0.17	-0.008	0.571*	0.078	0.32	0.021	-0.22	-0.016
Father's preparatory schooling	-0.46	-0.081	0.469	0.114	-0.32	-0.053	0.003	0.002
Mother's 2 ^{ry} schooling	-0.16	-0.023	-0.079	-0.008	0.07	0.022	-0.19	-0.005
Mother's preparatory schooling	0.47	0.051	0.207	-0.002	0.41	0.039	-0.17	-0.014
Father's occupation	0.648*	0.063	0.619*	0.064	0.29	-0.009	0.218	-0.004
Parent's household size	0.05	0.011	-0.070***	-0.015	0.02	0.004	0.009	0.000
Farmland ownership	-0.661**	-0.089	0.211	0.093	-0.610*	-0.080	-0.1	0.004
Parent's annual income	0.427***	0.023	0.464***	0.034	0.553***	0.048	0.393**	0.003
Socio-economic factors of the migrants in the city								
City living duration	0.128	0.003	0.222**	0.024	0.152*	0.008	0.240*	0.005
Access to training	-0.965**	-0.181	0.334	0.084	0.32	0.075	0.075	0.004
Access to social network	-0.08	-0.032	0.495	0.091	-0.34	-0.084	1.568**	0.053
Access to workplace	2.757***	0.516	-	-	-	-	-	-
Access to job information	-0.668	-0.063	-0.781	-0.095	0.341**	0.001	0.679***	0.037
Access to city ID card	-0.583**	-0.042	0.992***	0.137	-0.131	-0.047	0.235	-0.005
Job mismatch with skill	0.348	0.044	0.401	0.060	-0.16	-0.057	-0.058	-0.002
Access to any support	0.213	0.017	0.126	0.000	0.42	0.058	-0.731	-0.031
Org. membership	0.07	0.009	-0.22	-0.055	0.158	0.027	0.799**	0.028
Credit service	-0.35	-0.096	0.479*	0.074	0.427*	0.057	0.499	0.013
Dispute encounter in city	-0.669**	-0.102	-0.27	-0.025	-0.333	-0.097	-0.801**	-0.023
Access to registration & advisory service in city	0.415	0.041	-0.21	-0.092	0.747**	0.108	0.638*	0.015
Origin and location of migration								
Birthplace (small-urban)	0.623**	0.086	0.326	0.031	-0.11	-0.059	0.381	0.007
Distance to birthplace	0.15	0.013	0.183*	0.023	0.04	-0.007	0.047	-0.001
Regional origin (Oromia)	-0.602*	-0.084	-0.633**	-0.101	0.236	0.082	0.980*	0.042
Constant	-7.22***		-7.48***		-7.07***		-12.74***	
Log-pseudo likelihood = -1058.4524					Wald $\chi^2(132) = 484.21$			
Pseudo R ² = 0.2284					Prob > $\chi^2 = 0.0000$			

Source: Author's calculation, STATA output. Notes: Significance code: *p<0.1, **p<0.05, ***p<0.01. M.E. stands for Marginal Effects. The reference category is unemployed or being a daily laborer

The MEs estimate show that those migrants whose parents are farmers, compared to those whose parents are non-farmers, have more probability of being employed the informal self-employment and informal private employment segments by 6.3% and 6.4%, respectively. A parent's annual income has a positive significant effect on all employment segments at 1%. MEs estimate indicates that a one-unit increase in a migrant parent's annual income would increase the probability of being employed in the self-employment, informal private employment, formal private employment, and formal public employment segments by 2.3%, 4.8%, 3.4% and 3%, respectively. This result might be due to the fact that migrants from parents with relatively better annual income may be able to easily get initial capital to start their own business as self-employed migrant in the informal employment segment, or they may have better inputs for searching jobs in the available urban labour market. These findings are consistent with the findings of Amanuel (2016) and Aynalem et al., (2016). In contrast, a parent's farmland possession has negative significant effect on the informal self-employment and informal private employment segments, both at 5%. MEs show that migrant parent's farmland possession results in less likelihood of being employed in self-employment and in informal private employment segments by 8.9% and 8%, respectively. This could be due to the indifference state of migrants to join the self-employment and the informal private employment opportunities; with the existing high market prices and challenges in mind, they might consider a rational comparative advantage of working on their parents' farmland by going back home.

3.5. Socio-economic factors of the migrants in the city

Duration of migrants' living in the city has a positive significant effect on the informal private, the formal private, and the formal public employment segments with $p < 0.01$. This indicates that the longer a migrant has lived in the city, the more likely s/he is to be in most of the urban employment segments. The MEs indicate that living in the city for one additional year would increase a migrant's probability of employment in the informal private, the formal private, and the formal public employment segments by 2.4%, 0.8% and 0.5%, respectively *ceteris paribus*. Migrants' training opportunity has a negative significant effect on the self-

employment segment at 5%. This demonstrates that migrants who have participated in some training opportunity would have less relative probability of getting employed in the informal self-employment segment by 18%, as compared to those with no training. This might be due to inadequacy of the training or its mismatch with the actual migrant's own-business activities. Access to credit service has a significant positive effect on the informal private and the formal private employment segments at 1%. The significant influences only on these private segments could be related to the informality of the credit source itself, as most of the creditors obtained the money from non-financial sources. MEs show that a migrant who has obtained credit service would have comparatively more probability of employment in the informal private and the formal private employment segments by 7.4% and 5.7%, respectively.

Access to workplace in the city has a positive significant effect on the self-employment segment at 1%. MEs show that having a workplace for own business activity increases the probability of a migrant to be engaged in the self-employment segment by 51.6. Having social network in the city affects the formal public employment segment positively and significantly at 5%. The MEs show that having personal social network in the city increases the probability of a migrant being employed in the formal public employment segment by 5.3. The result is consistent with the previous studies such as Amanuel (2016) and Aynalem et al., (2016). Access to job information has a positive significant effect on the formal private and formal public employment segments at 1%. The corresponding MEs suggest that, for a migrant, having access to job information resulted in an increase of her/his likelihood of getting employed in the formal private and formal public employment segments by 0.1% and 3.7%, respectively. Not having a city's ID card appears to influence the self-employment and informal private employment segments negatively and significantly at 1%. The MEs evince that the probability of being employed in the self-employment and informal private employment segments declined by 4.2% and 13.7% for migrants without city's ID card, compared to those who have an ID card, *ceteris paribus*. Considering the variable 'encountering dispute', the result showed that

this variable has a negative significant effect on the self-employment and the formal public employment segments at 5%. This indicates that migrants who have experienced any dispute during their stay in the city have faced distress in their life in the city, a situation that lowers their chance of being employed in the informal self-employment and the formal public employment segments by 10% and 2.3%, respectively. 'Being registered and getting advice' in the city's administration units have a positive significant effect on the formal private and public employment segments at 5%. MEs indicate that being registered and receiving advice in the city's administration units enhance a migrant's probability of employment in the formal private and formal public employment segments by 10.8% and 1.5%, respectively, *ceteris paribus*.

The empirical result shows that distance to the birthplace of a migrant has positively significant influence on the informal private employment segment at 10%. The result shows that a one-unit increase in a distance to the migrant's birthplace is associated with 2.3% increase in the relative probability of a migrant to be employed in the informal private employment segment. Being from a small town has a positive significant effect on self-employment segment at 5%. Hence, being a migrant from a small town increases the likelihood that the migrant will be self-employed compared to migrants from rural areas by 8.6%, *ceteris paribus*. This might be due to the trend that, at the beginning of their career, youth in urban areas are often ready to engage in any available employment activities in the labour market as a survival strategy and to avoid unemployment, and they later transition to self-account employment at the new urban destination.

4. Conclusions and Recommendation

This paper investigates determinants of rural-to-urban migrants' participation in employment segments in urban labour market in central Oromia cities, Ethiopia. The study used a cross-sectional data collected from youth migrants in selected central Oromia cities. The study employed a MNL model to identify determinants of migrants' participation in urban employment segments. For this purpose, the study categorized the whole sample of the study into five urban employment segments: the informal self-employment, the formal private-employment, formal

private-employment, formal public-employment, and the unemployment segments, with the last segment taken as a reference category. Accordingly, these segments provided urban employment opportunities for 26%, 19%, 19%, 9% and 27% of the total surveyed youth migrants, respectively. Descriptive results revealed that most of the migrants were from rural areas of the country. About 16.5% of them were transitory migrants who had migrated to other areas before their current destination. Some of them had migrated to more than two towns/places before they came to their current city of residence. About 90% of the migrants have attended formal education from primary to tertiary levels of schooling. The majority of the migrants (86%) were from Oromia Regional State, particularly from Arsi zones and Bale zones, which take the largest zonal share within the region itself, followed by migrants from five Shawa zones in this region.

Econometric model result exhibited that a migrant's gender (female) and his/her parents' annual income have a positive significant effect on the migrant's employment in all employment segments. We can say that when the income of a migrant's parents increases, the migrant is less likely to be unemployed or to be in a wage employment status. This shows that the migrant's parental income, as a wealth-related factor of rural-urban migrant employment status, would have a positive effect on employment, as the migrant's likelihood of being unemployed decreases. Migrant's marriage, getting workplace for own business, job information deficiency, being from small urban area and fathers' occupation have positive significant effects on self-employment. Migrant's training, lack of city's ID card, dispute in the city, being from Oromia, and parent's farmland possession have negative significant effects on the informal private employment. Likewise, father's secondary schooling and occupation, migrant's duration in the city, job information deficiency and access to credit have positive significant effects on the informal private-employment. This segment is negatively influenced by marriage, household size, lack of city's ID card, being from Oromia region, and parent's household size. Migrants' preparatory or TVET schooling, university education, credit usage, and being registered and advised in the city have positive significant effects on the formal private employment, while parent's

farmland ownership has negative significant effects on this segment. Lastly, migrants' age, preparatory or TVET schooling, university education, having social network, organizational membership, and being from Oromia region have positive significant effects on the formal public employment. On the contrary, migrants' secondary schooling and facing disputes in the city of destination have negative significant effects on the segment.

These findings have important implications for designing policies to address constraints of urban labor market segments and reduce their negative consequences in cities centers. The government should give more emphasis to targeted policies that will be more effective if they could take these characteristics into consideration. In this regard, there is a need to adopt policies and strategies that could enhance employment opportunities for the migrants in big city centers. Well planned, coordinated, and concerted activities need to be undertaken on information on job availability, registration in local administration offices, providing city's ID card, advisory schemes, and community integration programs before and after migrants' arrival in cities. Besides, the government and municipalities

should create suitable conditions by facilitating access to finance (start-up capital), creating small businesses and providing them with workplace, and providing entrepreneurship training for youth migrants to alleviate constraints to self-employment segment, which encourages the youth to create their own work rather than being job seekers. A further implication is that the government should focus on addressing gender relations as well as strengthening the linkage between informal and formal sectors. These include initiating policies that help to promote gender-specific affirmative measures such as provision of suitable childcare arrangements, which would make it easier for females to enter urban labour market both in the informal and formal sector employment.

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Reference

- Amanuel, D. A. (2016). Determinants of youth unemployment: Evidence from Ethiopia. *Global Journal of Human Social Science Research*, 16(4), 10-20.
- Aynalem Sintayehu, Birhanu Kassegn & Tesefay Sewnet (2016). Employment opportunities and challenges in tourism and hospitality sectors. *Journal of Tourism & Hospitality*, 5(6), 1-5.
- Baffour, P. T. (2015). Determinants of urban worker earnings in Ghana: The role of education. *Modern Economy*, 6, 1240-1252.
- De Brauw, A., & Mueller, V. (2012). "Do limitations in land rights transferability influence low mobility rates in Ethiopia?" *Journal of African Economies*, 21(4), 548-579.
- De Brauw, A., Mueller, V., & Tesaw Woldehanna (2013a). Motives to remit: Evidence from tracked internal migrants in Ethiopia. *World Development*, 50, 13-23.
- De Brauw, A., Mueller, V., & Woldehanna, T. (2018). Does internal migration improve overall well-being in Ethiopia? *Journal of African Economies*, 27(3), 347-365.
- Doğrul, H. G. (2012). Determinants of formal and informal sectors employment in the urban areas of Turkey. *International Journal of Social Science and Humanity Studies*, 4(2), 217-231.
- Durbin, J. A., & McFadden, D. L. (1984). An econometric analysis of residential electric appliance holdings and consumption. *Econometrica*, 52(2), 345-362.
- Federal Democratic Republic of Ethiopia (FDRE), (2004). National youth policy: Addis Abeba, Ethiopia.
- Gherbi, H., & Adair, P. (2020). The youth gender gap in North Africa: Income differentials and informal employment. Erudite: Working Paper 2020-06, RePEc.
- Greene, W. H. (2007). *Econometric analysis*, 4th Ed. New Jersey: Prentice-Hall.
- Johansson, E. (2000). Self-employment and the predicted earnings differential: Evidence from Finland. *Finnish Economic Paper*, 13, 45-55.
- Jonathan, P. (2019). The economics of migration. *Contexts, American sociological association*, 18(2), 12-17. Doi: 10.1177/1536504219854712
- Kibret Fitsum Dechasa (2014). Une mployment and labour market in urban Ethiopia: Trends and current conditions. *Sociology and Anthropology*, 2(6), 207-218.

- McFadden, D. L. (1973). Conditional logit analysis of qualitative choice behavior. In: Zarembka, P., Ed., *Frontiers in Econometrics*, Academic Press, New York, 105-142.
- Mercandalli, S., Losch, B., Belebema, M. N., Bélières, J. F., Bourgeois, R., Dinbabo, M. F., Fréguin, G. S., Mensah, C., & Nshimbi, C. C. (2019). Rural migration in sub-Saharan Africa: patterns, drivers and relation to structural transformation. Working paper. FAO and CIRAD. Rome.
- Millan, J. M., Congregado, E., & Roman, C. (2010). Determinants of self-employment dynamics and their implications on entrepreneurial policy effectiveness. *Lect. Econ*, 72, 45-76.
- Msigwa, R., & Kipesha, E. F. (2013). Determinants of youth unemployment in developing countries: evidences from Tanzania. *Journal of Economics & Sustainable Development*, 4(14), 67-76.
- Muhdin, M. B. (2016). Determinants of youth unemployment of urban areas of Ethiopia. *International Journal of Scientific and Research*, 6(5), 343–350.
- Nganwa, P.; D. Assefa; P. Mbaka (2015): The Nature and Determinants of Urban Youth Unemployment in Ethiopia Public Policy and Administration Research 5(3): 197- 205.
- Senaviratna, N. A. M. R., & A. Cooray, T. M. J. (2019). Diagnosing Multicollinearity of Logistic Regression Model. *Asian Journal of Probability and Statistics*, 5(2), 1-9. <https://doi.org/10.9734/ajpas/2019/v5i230132>
- Shonchoy, A. S., & Junankar, P. R. (2014). The informal labor market in India: transitory or permanent employment for migrants? *IZA Journal of Labor & Development*, 3(9), 1-27.
- United Nations (UN) (2021). World Population Prospects, the World Bank Group.
- United Nations Department of Economic and Social Affairs (UNDESA) (2008). The United Nations Inter-Agency Network on Youth Development, coordinated by the Focal Point on Youth, UNDESA.
- Wambui, R. W. (2010). Determinants of employment in the formal and informal sectors of the urban areas of Kenya. *African Economic Research Consortium, Research Paper*, 194. Nairobi.i.