

The role of internal migration in access to first job: A case study of Uganda



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Summary

Does internal migration hasten labour market access for young women and men? This paper analyses data from the school-to-work transition survey in Uganda to address the topic. The main indicator used is the transition length to a first job with comparison made between young people in Uganda that have migrated inside the country and those who have never changed their residence. To account for the specific context of the country, whereby many young people enter the labour market at a very young age, some after a few years of schooling and some having never attended school, the paper considers a variety of starting points of transition: from the date of birth, from the minimum legal age (14 years old) and from the date of school exit. Extended proportional hazards models shows that transition duration is shorter for migrants than for non-migrants (except when measured as the school-to-work transition), although effects vary considerably according to the area of origin and destination and the reasons for migration. Decomposition in durations' gap reveals the importance of unobservable factors, especially the role of area of origin, gender, age cohort and access to education.

Youth
Employment
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The ILO School-to-work transitions surveys (SWTS) are implemented as an outcome of the **Work4Youth (W4Y)** project, a partnership between the ILO and The MasterCard Foundation. The project has a budget of US\$14.6 million and will run for five years to mid-2016. Its aim is to “promote decent work opportunities for young men and women through knowledge and action”. The immediate objective of the partnership is to produce more and better labour market information specific to youth in developing countries, focusing in particular on transition paths to the labour market.

See the website www.ilo.org/w4y for more information.

1. Introduction¹

Migrating to new places for better job prospects and higher wages is a widely used strategy among youth in developing countries. In economic literature, issues regarding the labour market outcomes of migrants from a developing country have been almost exclusively linked to international migrants located in Western countries.² Internal migration within developing countries has received less attention, which is striking as it is a far more common phenomenon with potentially large consequences for local labour markets and for poverty levels in general (De Brauw et al., 2014; McMillan and Harttgen, 2014). Internal migration is generally conceptualized as a human capital investment: individuals (and their households) maximize their welfare by comparing the current costs of migration to its expected returns. Rural to urban migration are often motivated by the prospect of higher wages (Todaro, 1969; Harris and Todaro, 1970) and the expectation of better employment transitions (Fields, 1975).

Empirical evidence of the internal migrants' performance in the labour market (in respect to their resident's counterpart) is however scarce, mainly due to data limitations.³ Job search is the primary cause of internal mobility for young males in many African countries. But surprisingly, little attention has been paid to the job search process and the labour market outcomes of internal migrants, especially in developing countries. In some context, migrants may suffer from disadvantages or face segmentation in some specific occupations in the labour market at destination.⁴ Despite its potential interest for policy makers, migrants are generally excluded from the analysis because their peculiar performances in the labour market can be attributed to differentials in pre-migration endowments such as age, work experience, education and psychology (Adserà and Chiswick, 2006). When focusing on young people, the speed of transition to employment is a summary measure of the labour market situation of young people, and a proxy of the ease or difficulties that youth can experience when entering into the labour market. The transition path and length is thus useful to identify possible discriminatory effects among young migrants, beyond the static information about the employment rate or occupational status of an individual.

This paper takes advantage of the comprehensive school-to-work transition surveys (SWTS) implemented by the ILO Work4Youth programme in order to compare labour market outcomes of Ugandan migrants and residents at destination areas. I focus on young people (aged 15 to 29 years old),⁵ as this category is the one most likely to migrate to begin their labour market transitions. More precisely, the aim of this study is to assess if the

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² For recent reviews, see Dustmann et al. (2008) and Kerr and Kerr (2011).

³ The closest contextual study of this paper found is one done by Thomas (2008), although it focuses on international and highly educated return migrants in Uganda.

⁴ Yang and Guo (1996) found, for example, that Chinese rural-to-urban migrants tended to work in marginal jobs that local residents did not want to do. A differential treatment in terms of wage and welfare benefits is also frequently observed worldwide among migrants and ethnic minorities.

⁵ The Uganda SWTS covers youth aged 15 to 30 years.

internal migration experience is an impediment or a driver for accessing a first job, or if, in other terms, internal migrants successfully integrate into the labour market.

The primary variable assessed is the transition length to a first job, as it can represent a better summary measure than the unemployment rate when one seeks to assess the difficulties a young may face and the complexity of labour market access. A longer entry duration may be associated with social and psychological problems, the degradation of an individual's human capital and/or a signal toward employers of a low level of productivity, making the individual even less "employable" as time passes. As past experiences of unemployment may lead to less stable and lower paid jobs, the transition length could also be a good predictor of future labour market performance (and even future "life" outcomes such as marriage or parenting).

While this study can have relevant implications to many developing countries, it focuses solely on Uganda as a first examination of the methodology. This country has experienced substantial internal migration. The 20-years ethnic war in Northern Ugandan has resulted in some North-South migration (IOM, 2015). Voluntary international (628,000 individuals in 2013 (UBOS, 2012)) and internal migration (1.3 million according to the 2002 census) is also common. The last decade has seen a massive migration from rural towards urban areas or towards rural regions with high economic activities (tea and sugar plantations).

The high population growth (3.2 per cent per annum) and the extent of underemployment are the main drivers of this labour migration.⁶ The demographic pressure affects particularly young people (below 30 years old), which count for 78 per cent of the total population, of which half are less than 15 years old (UBOS, 2012). However, as commonly observed, young people register a higher unemployment rate than older age groups (ILO, 2015). While youth unemployment is low in comparison to other regions, this comparative gain is offset by conditions of working poverty and widespread vulnerable employment.

What is interesting in the ILO reports based on assessment of the SWTS⁷ is that the timing and the length of access to a first job vary considerably across countries and regions according to the socioeconomic contexts of the countries and the individual characteristics of the youth (among which are education level, sex and household income level). In Uganda, where more than 53 tribes cohabitate, it would be expected that the ethnicity of youth will also result in differing results in the labour market transition (Ssennono et al., 2008).

In assessing the literature to date, we conclude that economic theory cannot predict with certainty whether migrants will have shorter or longer durations to a first job. Migrants might be expected to experience longer durations if skills acquired in their region of origin are not perfectly transferable in the destination market, or if they face some forms of discrimination due to asymmetries of information or pure taste-based prejudices. However, migrants might also have specific characteristics that are favoured in the destination markets, such as a lower propensity to risk-aversion (Katz and Stark, 1986; Bonin et al., 2009) or access to financial resources (Borjas, 1987). The latter can determine whether or not a young migrant can support him/herself through a lengthy period to first job or whether they will need to take up whatever job that comes around regardless of quality in order to

⁶ Others pushing factors explain population movements: internal migration is also driven by marriage purpose, especially in rural zones and for girls (IOM, 2015; Kudo, 2015). Beegle and Poulin (2013) highlight the fact that migration is linked to the transition to adulthood or an attempt to diversify income source (Christiaensen et al., 2013; Rosenzweig and Stark, 1989).

⁷ See ILO (2015) but also national and regional publications available at www.ilo.org/w4y.

earn an income. Another specific characteristic linked to both the migration decision and the probability to find a job is the quality and quantity of personal networks.

The examination of how internal migration impacts the transition to first job in Uganda consists of the following two steps. First, the duration to first job is calculated according to three duration methodologies outlined in section 3.2. The second step decomposes these estimated transitions lengths into an explained and unexplained part. In this step, the main difficulty lies in adapting an Oaxaca-Blinder-style decomposition to non-linear models.

The remainder of the paper is organized as follows: section 2 reviews the literature related to the access to employment for internal migrants. Section 3 introduces the dataset and specific descriptive statistics. Section 4 operates a simple comparison of the transition lengths between migrants and non-migrants, and section 5 refines the analysis by incorporating relevant covariates correlated with transitions durations and decomposing them into an explained and unexplained part. Finally, section 6 concludes.

2. Internal migration and access to employment

As stated above, economic theory is ambiguous in predicting whether or not migrants would have easier access to the labour market at their place of destination in comparison to local residents. This section expands on some of the mechanisms between migration and labour market outcomes as highlighted in recent economic literature.

2.1 Self-selection into migration

Human capital models of international migration highlight that migrants have a tendency to be positively selected compared to the home population for reasons having to do with local connections in their destination of choice. Borjas (1987) explains the migration decision by applying a Roy (1951) model of self-selection to international migration. In his model, rational individuals choose the optimal market in which to participate between several destinations depending on their comparative advantages on both their observed and unobserved characteristics. Hence, individuals are all potential migrants self-selecting the job and the location that gives them the highest expected earnings or the highest return to their skills. The internal migration decision can follow mechanisms similar to those of international migration with only the destination differing (Todaro, 1969; Harris and Todaro, 1970; Fields, 1975).

Besides avoidance of non-favourable economic situations and income-maximization strategies, selection into migration can also be driven by specific psychological traits (such as personality, non-cognitive skills, risk aversion, locus of control, willingness to find a job, etc.) that may have an influence on labour market outcomes (Chiswick, 1999). More recently, literature has pointed to the specific role played by informal information networks, such as family and friends located in the migration destination, in reducing search and information costs and thus enabling the labour market integration of subsequent migrant

cohorts.⁸ In the same vein, access to employment can be also facilitated by marriage with a resident when the native spouse helps facilitate access to the local labour market (Basu, 2015). In the specific case of Uganda (using SWTS 2015), around 70 per cent of migrants (against 61 per cent of residents) were found to have obtained their current job through friends or family.

2.2 Skills transferability

Beyond the self-selection of migrants on specific (observable or not) characteristics, a differential in job access between migrants and non-migrants could also be related to the background of immigrants and their reasons for migration. Not all migrants are motivated by maximizing their effective integration in the local labour market. Rather, many are escaping conflicts or situations of extreme poverty, in which case the human capital of migrants (type and level of education, qualifications and capabilities) needed to access a first job may be inappropriate in the region of destination (Chiswick, 1978; Borjas, 1985), or of lower quality.⁹

Migration among youth has its own particularities as it can reflect movements through the life stages from adolescence toward adulthood. The process can cover periods of schooling, first employment and/or marriage and family formation which are not necessarily experienced by adult migrants. In the case of Uganda (using SWTS 2015), 38 per cent of young male migrants and 18 per cent of female migrants were found to have left their place of original residence in search of employment prospects. The shares who migrated for educational purposes was lower at 15 per cent of young male migrants and 8 per cent of female migrants.

Other reasons for youth migration can be considered as “forced”, or at least as less self-determined. Nearly one-third of male migrants (32 per cent) and 19 per cent of female migrants reported having moved because the family moved. Then a very large share of young females (47 per cent), but only 1 per cent of young males, moved as a result of marriage. Finally, we should consider another group of young migrants, which are unfortunately not distinguishable in the dataset; young refugees from the long-standing conflict in the northern region are a specific but common migrant group in Uganda. Labour market access of internal displaced persons can prove to be especially difficult due to poor health and/or the missed opportunity to gain appropriate skills resulting from the experience in the conflict area.¹⁰

2.3 Discrimination

Frictions may arise to inhibit the labour market integration of migrants when resident employers face informational deficits in assessing the migrant’s skills and potential productivity. The uncertainty about the migrant’s productivity creates incentives for

⁸ While facilitating job placement, given that job-related networks are often clustered in one (or in some cases, a few) occupations, there can be issues related to mismatch between the occupations in which the migrant has contacts and their level of skills or qualifications. In certain situations then Bentolila et al. (2010) concludes that finding a job through informal networks can lead to a decrease in both the quality of work and the satisfaction brought by the job.

⁹ Schooling in rural areas, for example, is typically poorly funded, delivered in overcrowded classrooms, and associated with lesser outcomes in reading and mathematics literacy relative to what is reported for equivalent levels of education in urban areas.

¹⁰ In Uganda, the 20-years conflict war localized in the Northern region created persistent geographical inequalities in terms of health and education.

employers to use observable (but discriminating) characteristics (ethnicity, gender, age, height) as a proxy for productivity (Arrow, 1971; Phelps, 1972; Cain, 1986; Clark and Drinkwater, 2008). In such cases, employers under-weigh migrant's productivity respective to non-migrants, adding difficulties in the migrant's search for employment. The resulting discrimination is often not based on any intentional prejudice but rather on a rational response to information gaps. Still, we cannot exclude entirely some internal bias on the part of employers leading to a desire to avoid specific groups (Becker, 1962).

2.4 Luxury unemployment

While discrimination towards migrants could induce longer transition lengths, two counterbalancing factors could accelerate access to a first job. First, the job match model of Pissarides (2000) assumes that the job matching rate (the rate for which people expect to find a new job) depends on the total number of vacant jobs in the labour market and is inversely correlated with the searching cost. In a context of job stratification, if migrants are more likely to accept any type of jobs (while local residents do not), then migrants have a higher overall job matching rates (Knight and Yueh, 2004). Second, the concept of luxury unemployment implies that a jobseeker can take longer in the job search in order to find one best suited to his qualifications and expectations as long as s/he has a support structure in place. Migrants lacking familial support and without access to national unemployment funds or other means of social protection might not be able to afford a period of long job search and would thus tend to accept the first offer that comes regardless of working condition or the match with his skills or level of education (Udall and Sinclair, 1982).

3. Stylized facts about youth migration in Uganda

3.1 Dataset and sample restriction

Studies on flows within labour markets are relatively scarce, often due to a lack of appropriate information. The available surveys often miss the ability to capture labour mobility and rather focus on the current state in the labour market. The ILO SWTS, implemented in 34 countries through the Work4Youth partnership between the ILO and The MasterCard Foundation, aimed to overcome the lack of flow data by including a section dedicated to capturing the historical perspective of the young respondent's history of economic activities. In the case of Uganda, the SWTS was implemented twice by the Ugandan Bureau of Statistics (UBOS), first in 2013 and again in 2015. This paper is based on the 2015 survey, with a sample of 3,049 youth.¹¹

For the purpose of the study, some restrictions in the sample were made. First, individuals that declared having worked before the age of 5 years (24 observations) were dropped as a presumed measurement error. Next, foreign migrants (5 more observations) were also dropped as the focus of the paper is on internal migration. Finally, as this paper focuses on labour market transitions, observations with no information on dates of starting work or ending school were also deleted. In all, the total sample examined in this exercise came to 3,009 Ugandan youth aged 15–29.

¹¹ Micro data files for 53 surveys in 34 countries are available on the W4Y website.

3.2 Definition of main variables

Non-migrant youth refers to individuals that have never lived outside the administrative area in which they were surveyed. In contrast, (*internal*) *migrant youth* are defined as those who had lived in another administrative area.¹² According to this definition, 17 per cent of young Ugandans are migrants (table 1). The rural-to-urban migration accounts for only 23 per cent of the total, while rural-to-rural migration represents 46 per cent. Urban youth also migrated, either to another urban area (17 per cent) or even to rural areas (15 per cent).

Table 1. Characteristics of young migrants in Uganda

	Total	Male	Female
Non-migrant	83.1	88.9	78.1
Migrant	17.0	11.1	21.9
<i>Migration flows</i>			
Urban to urban	16.7	16.8	16.7
Rural to urban	22.6	22.8	22.5
Rural to rural	45.6	38.3	48.7
Urban to rural	15.1	22.2	12.1
<i>Migration reasons</i>			
Economic migrants	31.2	50	23.2
Marriage migrants	34.3	0.7	48.6
Others migrants	34.5	49.3	28.2

Source: Author's calculations based on SWTS-2015 in Uganda.

Unfortunately, the SWTS data are not informative on the previous migration experience or on the date at arrival to the “new” area. We are thus not able to distinguish between recently arrived migrants and long-term migrants that arrived in their childhood following a decision within the household and for which assimilation and integration are likely to be easier. We are also not able to distinguish between temporary migrants – those who left their administrative areas at one time but went back – from migrants remaining at their non-original destination.¹³

One solution is to define different types of migrants according to their reasons from migration. *Economic migrants* refer to migrants that arrived to the surveyed administrative areas for work or educational purpose. We assume that these migrants came at an older age than other migrants. Economic migrants concern 50 per cent of the total number of male migrants and 23 per cent of female migrants, and are mainly located in urban areas. *Marriage migrants* concerns mainly young women (49 per cent of female migrants) and

¹² For the remainder of the report, the term migrant youth will be used without the reminder that we refer only to internal migrants.

¹³ Theoretically, returnees are often viewed as “unsuccessfully” migrants who did not succeed in finding a formal job in urban area (Harris and Todaro, 1970). But it could also be understood as a successful migration experience if the aim of migration had been to reach a specific objective or a “saving target” with the return meaning the target had been met (Cassarino, 2004; De Vreyer et al., 2010; Démurger and Xu, 2011; Marchetta, 2012). In the context of Uganda, the 20-years conflict resulted in the internal displacement of 6 per cent of the total population. By 2011, the vast majority of the displaced population had returned home (Women’s Refugee Commission, 2011).

rural-to-rural migration. *Other migrants* are principally young people that migrated with their family, potentially at an early age.

Uganda, like many developing countries, shows a non-negligible portion of youth that never attended school (5 per cent) and a large share who started working before the completion of their education (40 per cent).¹⁴ Capturing the labour market transition of youth in such countries needs to account for a variety of educational and employment scenarios. For the purpose of this paper, the diversity of experiences is measured in terms of the start date of the transition rather than the end date which is taken, in all cases, as the date of access to a first job (month and year) based on responses to the history of economic activities included in the questionnaire.¹⁵

Three methods of duration calculations are considered based on varying estimates for the starting point. The first one is unconditional, with the starting point as the date of birth, thus allowing that some people start working as children (condition 1). The second method takes a universal starting point of 14 years (the Ugandan legal minimum working age) conditionally on never having worked before that age, i.e. on never having been a child labourer (condition 2). The third method measures a standard school-to-work transition, from date of school exit to start date of a first job, conditionally on having ever attended school and never having combined work with schooling (condition 3).¹⁶ Duration analyses are used to calculate these transitions lengths.

3.3 Descriptive statistics

Characteristics presented in Table 2 suggest that migrant youth are a quite specific population, different in observables from the non-migrant youth population. Migrant youth are thus slightly older, with a higher education level, and live primarily in urban areas. The higher proportion of young women among migrants is explained by marriage-driven mobility. Young women are more often married and with children than young men.¹⁷ Regarding the educational background, there is no statistical difference between migrants and non-migrant youth on the probability to have once attended school. However, the education level is much higher for migrant youth. Note that this difference is mainly driven by economic migrants, a group that is three times more present in higher level of education (university) than non-migrants. In contrast, migrants for marriage reasons present almost the same educational characteristics than non-migrants (statistics not shown). The decomposition into type of migration also reveals that rural-to-rural migrants are less educated respective to other migrants.

¹⁴ See also the two published reports summarizing results of the two rounds of SWTS in Uganda: Byamugisha et al. (2014) and UBOS (2016).

¹⁵ ILO (2015) suggests that the first job is only part of the story of youth transitions, thus proposing an alternative review of pathways to first stable and/or satisfactory job. For the purpose of this paper, we prefer to look at the pathway to the first job regardless of its characteristics.

¹⁶ In this way, we cannot observe negative transitions.

¹⁷ Nearly half (48.5 per cent) of young women were married in 2015 compared to 28.3 per cent of young men (UBOS, 2016).

Table 2. Selection bias on unobservable characteristics - all sample

	Non-migrants			Migrants			Diff in mean	T-stat	p-value
	Mean	St.Dev	#Obs	Mean	St.Dev	#Obs			
<i>Individual characteristics</i>									
Male	0.49	0.5	2,499	0.3	0.46	510	0.19	7.92	0.00
Urban	0.23	0.42	2,499	0.4	0.49	510	-0.16	-7.75	0.00
Age	20.79	4.33	2,499	22.48	4.07	510	-1.69	-8.13	0.00
Have children	0.39	0.49	2,499	0.58	0.49	510	-0.19	-7.95	0.00
Single	0.62	0.49	2,499	0.39	0.49	510	0.23	9.65	0.00
<i>Educational background</i>									
Ever attend	0.94	0.24	2,499	0.95	0.21	510	-0.01	-1.08	0.28
No education	0.51	0.5	2,499	0.35	0.48	510	0.15	6.34	0.00
Primary school	0.29	0.45	2,499	0.31	0.46	510	-0.02	-1.07	0.28
Secondary school	0.16	0.36	2,499	0.23	0.42	510	-0.08	-4.23	0.00
Higher level	0.05	0.22	2,499	0.1	0.3	510	-0.05	-4.6	0.00
<i>Labour market status</i>									
Employed	0.65	0.48	2,499	0.73	0.45	510	-0.08	-3.35	0.00
Unemployed	0.05	0.22	2,499	0.1	0.3	510	-0.05	-4.51	0.00
Inactive	0.3	0.46	2,499	0.17	0.38	510	0.13	5.93	0.00
Ever in formal employment	0.04	0.2	2,499	0.05	0.22	510	-0.01	-0.93	0.35
Never employed	0.28	0.45	2,499	0.18	0.38	510	0.1	4.85	0.00
Child labourer	0.23	0.42	2,499	0.21	0.4	510	0.02	1.04	0.00
Worked while schooling	0.49	1561	0.34	0.48	383	0.07	2.39	0.02	0.41

Source: Author's calculations based on SWTS-2015 in Uganda.

These differences in background characteristics in favour of migrants (especially on education backgrounds) are likely to influence also the differences in labour market outcomes between migrants and non-migrants. At the time of the survey, 73 per cent of young migrants was employed versus 65 per cent of non-migrants of the same age. While the proportion of youth that started working before the age of 15 (child labourers) is not significantly different between the two groups, 82 per cent of migrant youth had already had at least one experience in the labour market against 72 per cent of non-migrant youth. Migrant youth tended also to be less often inactive at the time of the survey. The proportion of youth with an employment experience in the formal sector is low for both migrants and non-migrants (less than 5 per cent have ever been in formal employment).

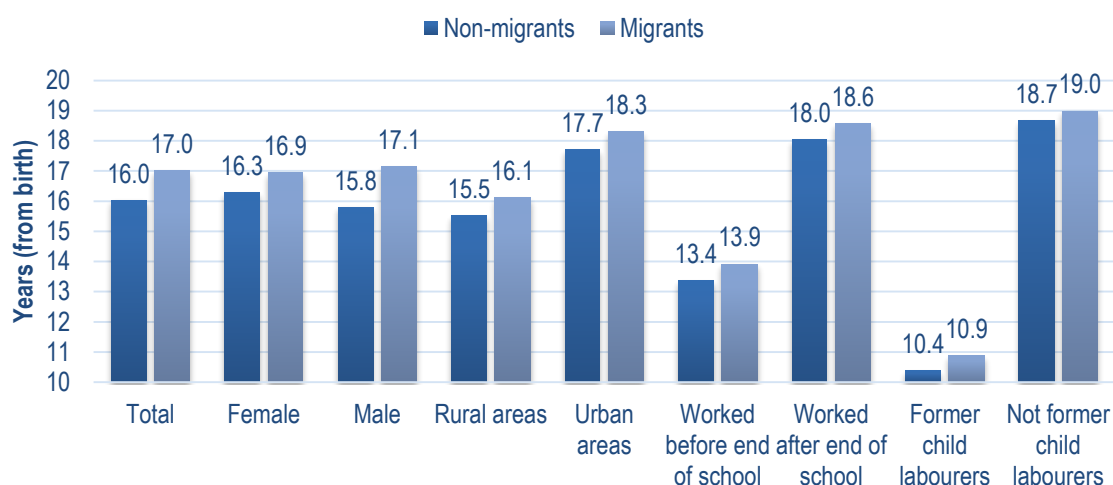
4. Comparing transition lengths

4.1 Simple comparison

While they have a lower tendency to work than migrants, the non-migrants who do work had a slightly shorter transition period to the first job (Figures 1-3). The first graph (Figure 1) represents the average transition length to a first job, expressed in years. As the starting point is the date of birth, this transition can be interpreted as the average age of entering the job market regardless of the education path or the legality of the employment status (recalling the 14 year legal minimum working age in Uganda). Thus, non-migrants obtained a first job at the average age of 16 years, while migrants started working at the average age of 17. When disaggregating by characteristics such as sex, area of residence, working before/after the end of schooling, and having entered before/after 14 years old, a

significant advantage of non-migrants over migrants remains (from 3 months for non-child labourers to 15 months for young men).¹⁸

Figure 1. Mean transition length to a first job (in years from birth) (condition 1)

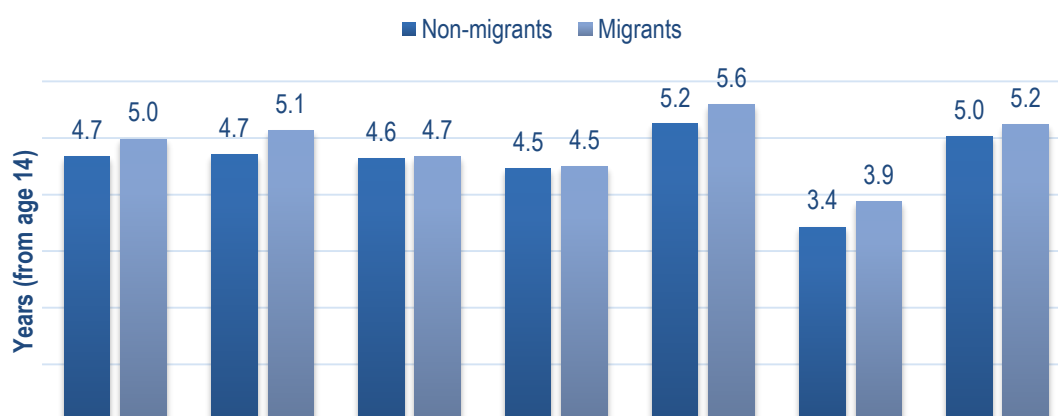


Note: Conditional on no work before the age of 5.

Source: Author's calculations based on SWTS-2015 in Uganda.

The second graph (Figure 2) focuses on young people that had not been employed before the age of 14 (i.e. excluding former child labourers). This graph is also expressed in years, from the starting point of 14 years old. One can observe that there are no statistically significant gaps between migrants and non-migrants, whatever the youth's characteristics. In other terms, once excluded child labourers that mechanically hasten the transition to employment, there is no longer a difference in the transition durations to employment between migrants and non-migrants. The same comment holds for the calculations based on the school to work transition (Figure 3).

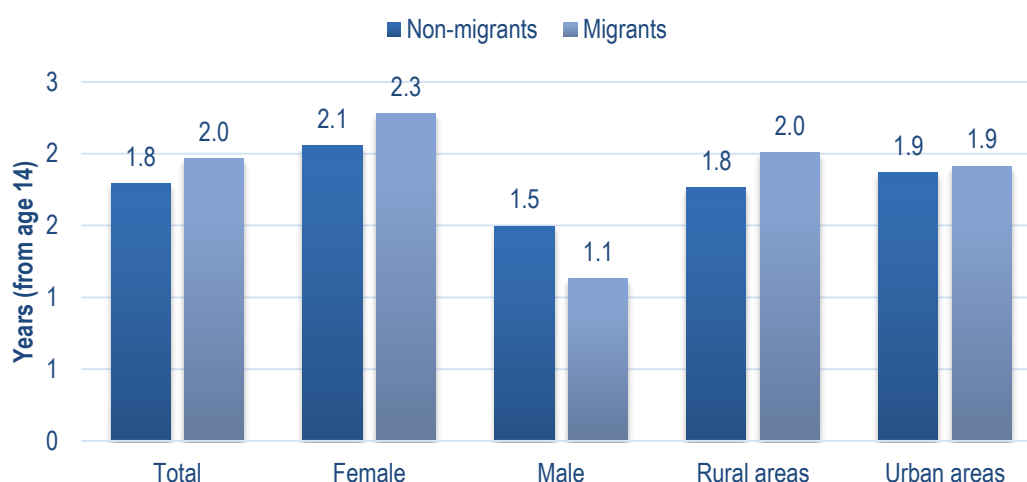
Figure 2. Mean transition length to a first job (in years from age 14) (condition 2)



Source: Author's calculations based on SWTS-2015 in Uganda.

¹⁸ Statistical differences are calculated using t-tests.

Figure 3. Mean transition length from end of school to a first job (in years from age 14) (condition 3)



Source: Author's calculations based on SWTS-2015 in Uganda.

4.2 Kaplan-Meier estimations

Simply comparing the average transition lengths is biased in several ways. First, the probability of entering into the labour market is likely to vary over time and depends on the time you have already spent looking for a job. It seems plausible that the longer the never-employed state lasts, the more likely that a first job will be obtained in the next month. In some cases, a “scarring effect” could appear, inducing more difficulties for youth that spend a long period as never-employed.¹⁹ In such cases, the longer the non-employment state persists, the less likely the state will end in the next months. In the literature, this is called the duration dependency, whereby the time spent in a given “state” changes the probability of transition to another state.

The second issue that is not considered in the simple comparison is the length-biased sampling. Among those never-employed at a given time, the distribution of duration is biased by the presence of those who are less likely to ever leave the non-employment state (young mothers, for example).²⁰ The SWTS data only informs us how long an individual has been never employed, but not when/if he will ever enter into employment. The right-censored nature of the data is an issue if the distribution of incomplete durations differs from the distribution of complete durations. Yet excluding these young people still not employed at the time of a survey is not the preferred option since their storylines remain of interest to the study; Youth in this subgroup may be either too young to have started their transitions (including many current students), discouraged workers or inactive non-students. A duration model is thus preferred to identify actual length of transition to a first job.

¹⁹ The scarring effect of past labour market experiences relates to the fact that long-spells of unemployment may lead to lower future wages and lower chances of finding employment, at least for prime-aged workers (Arulampalam, 2001). Possible explanations are correlated with the depreciation of firm-specific human capital and the deterioration of general skills associated with a spell of unemployment.

²⁰ See Elder and Kring (2016) for a discussion of the inactivity trapped faced by young women.

As a first step in examining and comparing transition lengths across the two groups, we calculate Kaplan-Meier (K-M) failure functions, given by:

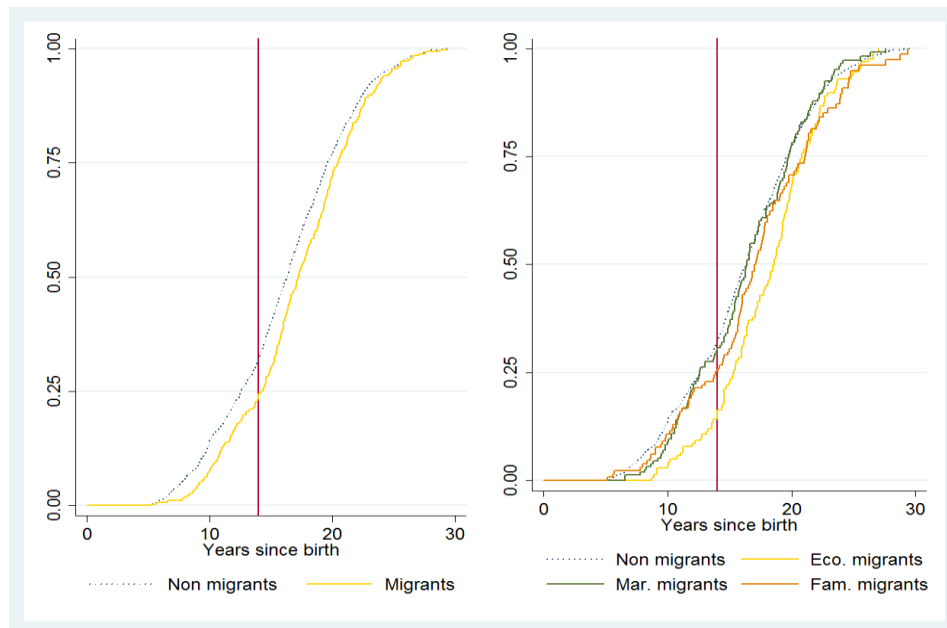
$$F_{(a_K)} = 1 - \left[\prod_{i=1}^K ([n_i - h_i]/n_i) \right]$$

where n_i is the number of youth still never-employed at the time of the survey and h_i the number of those who have transited (i.e. who have obtained a first job) at age a . The Kaplan-Meier non-parametric estimator enables to estimate the survival curve. The survival function $S_{(a)} = 1 - F_{(a_K)} = \text{Prob}(a_i > t)$ measures the proportion of individuals (the “survivors”) still present in never-employment (who have survived) after a specific age. It refers to the probability for an individual that his/her duration in that state will be greater than age a . The failure function is more of interest in this paper as it refers to the probability of entering into the labour market before age a .

Figure 4 presents the Kaplan-Meier estimations, distinguishing between the migration status (migrants or non-migrant youth) and the type of migration (economic migrants, marriage migrants, or family migrants). Non-migrants appear to have shorter transition paths: at every point they enter employment at an earlier age than migrants. At the legal age of 14 (red line in Figure 4), 24 per cent of migrants and 35 per cent of non-migrants had achieved a first job. At 20-years-old, the proportions were 73 per cent for migrants and 77 per cent for non-migrants.

The second part of Figure 4 distinguishes among the motives for migration, showing that individuals that migrate for marriage purpose have the same transitional path than non-migrants (see Log-rank test in Annex I, table A.1). Economic migrants (and to a lesser extent family migrants) present a different pattern. Results are however mainly driven by rural-to-rural migrants: as shown in Annex II (table A.2) the other types of migration present no statistical differences in their transition paths.

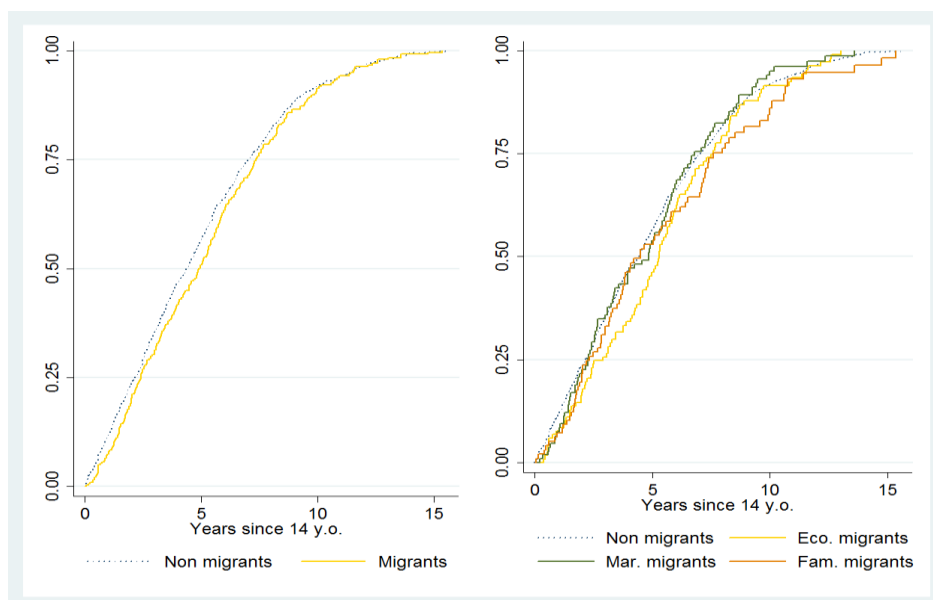
Figure 4. Kaplan-Meier failure function of transition length to a first job (condition 1)



Source: Author's calculations based on SWTS-2015 in Uganda.

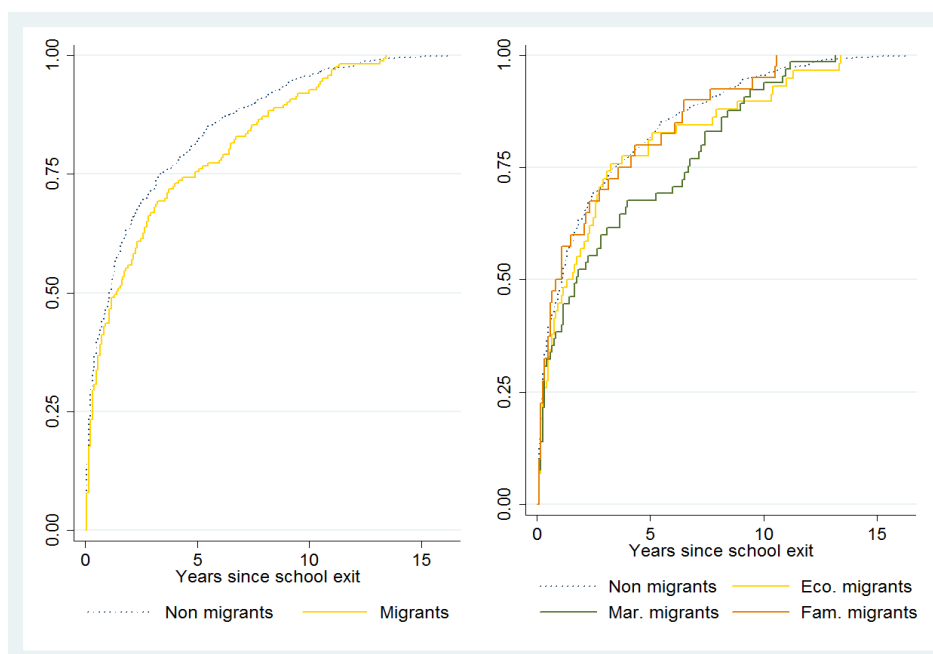
Figure 5 refers to the access to a first job from the age of 14 years, excluding former child labourers. In this case, we observe no significant differences between migrants and non-migrant youth. The school-to-work transition survival function in Figure 6, however, does show some differences between the two groups: migrant youth are slower to obtain the first job than non-migrant youth, but this difference is not significant and is mainly driven by migration for marriage reasons.²¹

Figure 5. Kaplan-Meier failure function of transition length to a first job from 14 years old (condition 2)



Source: Author's calculations based on SWTS-2015 in Uganda.

Figure 6. Kaplan-Meier failure function of transition length from school to a first job (condition 3)



Source: Author's calculations based on SWTS-2015 in Uganda.

²¹ For the sake of space, log-rank tests for two last transitions are not shown but are available upon request.

5. Analysing the transition lengths gap

Duration analysis is useful when one does not focus only on the duration of an event per se, but also on the likelihood that the event will end in the next period, given that it has lasted as long as it has. Cox proportional hazard models help to go deeper in the analysis by studying the effect of risk factors on survival. For instance, these models can investigate the effect of some observable covariates on the likelihood to access to a first job before a given period of time.

5.1 Cox-proportional hazard models

5.1.1 Model presentation

The Kaplan-Meier estimates indicate whether there is a difference between the survival times of different groups. However, it does not allow explanatory variables to be taken into account. The most common approach to integrating covariates into the analysis is the semi-parametric Cox survival model (Cox, 1972), which is applied here to estimate the average number of months needed to attain a first job.

A transition model expresses the hazard at time t for an individual with a given set of explanatory variables X . In this study, the hazard rate $\lambda_a = f(a)/S_{(a)}$ refers to the instantaneous prospect of leaving the ‘never-employed’ state at age a , having never been employed up to that point.²² The higher is the hazard rate, the shorter will be the transition. As individual characteristics influence the probability to find a job, the hazard rate should differ among the population according to covariates reflecting level of education, birth cohort, socioeconomic background, and family status. A component θ is incorporated into the hazard function to disentangle the baseline hazard $\lambda_0(a)$ (common to all individuals) to the specific individual characteristics. A dummy for primary school attendance is included in this set of covariates. This dummy is considered as time-invariant, since all surveyed individuals are aged from 15 to 29 years.

Some of the surveyed youth have not yet finished their education at the time of the survey. In these cases, the expected level of education attained is approximated by the educational level of the same-sex parent. Area of origin and birth cohort (4-year span) are also included, to control for cohort effects. Despite these controls, the proportional hazard function is violated by some characteristics whose effect varies according to age. Being a migrant is likely to have a different impact on labour market entry for a young person who migrated at the age of seven, compared to another who migrated at the age of 23. A very young migrant is more likely to eventually assimilate into the community of destination. In addition, some events like getting married or having children should be integrated into the model as they may modify the job search behaviour.²³ The Cox model is thus extended to include the set of time-varying covariates $Z_i(a) = Z_i g(a)$ that vary with age through the function $g(a)$. Further, the model is fitted to reflect that these covariates may have a declining effect over time. The function $g(a)$ is therefore a logarithm of age. Finally, the baseline hazard is allowed to vary according to the area of origin (urban/rural) and sex by stratifying by these two variables.

²² As time 0 correspond to the date of birth, individual’s survival time is represented by their age.

²³ A Schoenfeld residual test confirms that the mentioned variables should be considered as time-dependent.

The predicted hazard for an individual i is given by:

$$\lambda_{r,s}(a) = \lambda_0(a) \exp \left[\sum_{i=1}^K \beta_{r,s} X_i + g(a) \left[\sum_{i=1}^K \gamma_{r,s} Z_i \right] \right]$$

where $\lambda_0(a)$ is the baseline hazard, X_i the time-invariant characteristics, Z_i the time-varying characteristics, r the stratification by area of origin, and s the stratification by sex. The semi-parametric Cox model makes no assumption regarding the form of the hazard function that is estimated by maximum likelihood.

The first and the second transitions (conditions 1 and 2) have the same specification, only the time t changes (date of birth for the first transition, date when 14 years old is reached for the second). The school-to-work transition (condition 3) presents other features. First, its starting point is the date of school exit. Since the age when this event occurs differs for every individual, we add age at exit in the set of covariates. Second, we add educational attainment to the set of covariates. This variable is directly estimated once the respondents in this group declare having finished their education.

5.1.2 Results

Table 3 presents exponentiated coefficients (hazard ratios) from the extended semi-parametric Cox proportional hazard model. The sample is stratified by sex and area of origin when these variables are not added as covariates in the model. The hazard ratio represents the conditional probability that a young person enters a first job in a particular month, given that this has not occurred until then. Note that hazard ratios have a different interpretation than a coefficient. They reflect relative risks, or in other terms the change in the log odds of the conditional probability of entering a first job. This change is caused by a one-unit increase in the associated time-invariant covariate, and by the logarithm of one unit of the associated time-varying variables. A hazard ratio greater than one indicates a faster transition while a ratio lower than one suggests that the access to a first job takes more time.

Columns (1), (4) and (7) estimate the hazard ratio using a stratification by sex and area of origin. The migration experience is the only explanatory variable. Results are similar to those found in Kaplan-Meier estimations: migrants have a lower hazard, meaning that they spend a longer time in the “never-employed” state than non-migrants. Being a migrant reduces the probability to enter into employment by 4 to 11 percentage points, depending on the transition measurement used. However, the difference in hazard ratio between migrants and non-migrants is only significant for the first transition measure (condition 1).

Interesting results emerge once the set of covariates and interaction terms are added. When controlling for individual characteristics, migrants seem to achieve their first job faster than non-migrants. The probability of finding a job before the date of the observation is 4 to 5 percentage points higher for migrants than for non-migrants (columns (2) and (5)). The school-to-work transition (condition 3) still shows no-significant impact of being a migrant on the duration of the “never-employed” state. Columns (3), (6) and (9) add interaction terms to take into account the heterogeneity of migrants.

Table 3. Cox regressions on transitions to a first job

	Transition condition 1			Transitions condition 2			Transition condition 3		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Migrant	0.892**	1.043*	1.921***	0.958	1.049	1.175	0.916	0.968	0.912
	-0.05	-0.024	-0.372	-0.064	-0.05	-0.136	-0.087	-0.057	-0.111
Time-variant characteristics									
Mig*rural origin			0.566***			0.893			1.017
			-0.109			-0.096			-0.115
Mig*urban residence			0.490***			0.841			1.064
			-0.095			-0.093			-0.122
Mig*male			1.021			1.094			1.041
			-0.048			-0.106			-0.135
Urban residence		0.947	1.803***		1.066	1.169**		1.057	1.029
		-0.032	-0.342		-0.056	-0.089		-0.056	-0.062
With children		0.995	0.992		1.051	1.051		0.901*	0.899*
		-0.026	-0.026		-0.057	-0.057		-0.056	-0.056
Single		0.99	0.984		0.942	0.939		0.983	0.978
		-0.026	-0.026		-0.051	-0.051		-0.06	-0.06
Time-invariant characteristics									
Male		1.161***	1.147**		1.167**	1.136*		1.145*	1.149*
		-0.062	-0.066		-0.073	-0.074		-0.088	-0.088
Rural origin		1.086	6.230***		1.202**	1.377***		1.152*	1.147
		-0.102	-3.324		-0.103	-0.165		-0.097	-0.097
Parents-primary		0.856***	0.859**		0.903	0.908			
		-0.051	-0.051		-0.069	-0.07			
Parents-secondary		0.757***	0.775***		0.807*	0.819*			
		-0.075	-0.076		-0.095	-0.096			
Parents-higher		0.777*	0.795*		0.894	0.909			
		-0.104	-0.107		-0.135	-0.137			
Primary level		1.612***	1.600***		1.537**	1.526***		1.281	1.310*
		-0.086	-0.085		-0.1	-0.099		-0.201	-0.209
Secondary level								1.077	1.098
								-0.168	-0.174
Higher level								0.987	1.008
								-0.157	-0.162
Age school exit								1.276***	1.277***
								-0.019	-0.019
Observations	2,208	1,914	1,914	1,530	1,305	1,305	744	744	744

Notes: Stratified by sex and area of origin. Migrant is considered as time-invariant in model (1), (3) and (5) and as time-varying observable in models (2), (4) and (6). Variables in tv equation interacted with ln(t). Transition 1: from date of birth to first job. Transition 2: from 14 years old to first job. Transition 3: from end of school to first job.

Source: Author's calculations based on SWTS-2015 in Uganda.

For easier interpretation, all specific hazard ratios are recalculated according to the type of transition measurement method (using interaction terms) and are presented in Annex table A.3. Only the first measurement method is discussed here as the two others show no significant statistical differences in transition length between migrants and non-migrants. Transitions are found to be slightly faster for young men than women; migrant males find a first job at a younger age than migrant females in all areas considered. Results highlight different patterns according to the area of destination: migrating towards rural areas seems to hasten access to a first job while migrants located in urban areas face more difficulties. When disaggregating by types of migration, one can notice that the faster transition for migrants in respects to non-migrants is mainly driven by urban-to-rural migration and, to a lesser extent, by rural-to-rural migration (Annex table A.3). A portion of migration to rural areas is likely to be temporary in nature, as agricultural workforce move in response to seasonal labour demand. No significant difference can be observed between urban-to-urban migrants compared to urban non-migrants. By contrast, transition

for migrants located in urban areas are longer; the risk for a non-migrant of staying in the state of never-employed before the time of survey is between 47 per cent (for those originated from rural areas) to 46 per cent (from urban areas) higher than for a non-migrant.

As mentioned, sex is a significant predictor of the hazard to be employed (Table 3). This is consistent with the literature on unemployment duration. Being married increases the length of a transition but not in a significant way. Having children has a significant and opposite impact on the duration of the transition of young women and men: it accelerates access to a first job for males, and delays it for females. These results suggest a traditional distribution of tasks between parents, with men serving as breadwinners while women take care of children and the household. Finally, having attended school (whatever the indicator used) increases the length of the transition vis-à-vis not having any education at all.

The migrant youth population is heterogeneous also in terms of reasons for migration. Estimations are re-performed in Annex table A.4 on sub-samples of three-types of migrants. The first group consists of those who migrated for educational or employment purposes (159 observations). This group should have specific skills as motivation, ability or productivity correlated with employability. Young women that migrate for marriage reasons (175 observations) should have access to social capital from their spouse, but may get bogged down in familial responsibilities. The third sub-population (176 observations) refers to youth that have migrated to follow their families, and may have benefited from the same childhood environment as non-migrants (though a discrimination effect might still exist). Regarding the first transition measurement (condition 1), previous conclusions hold: the transition is shorter for migrants than for non-migrants once relevant covariates are taken into account. The second and the third transition (conditions 2 and 3) present diverse results: while family migrants enter a first job at an older age than non-migrants, the opposite pattern prevails for economic and marriage migrants. Whatever the destination, the transition measured according to condition 3 (school-to-work transition) is longer for migrant females than non-migrant females, while the opposite applies for young males.

5.2 Decomposition in duration model

5.2.1 Difference in structure and endowments

This paper does not address unobserved heterogeneity due to the selection into migration, potentially leading to bias in the comparison of hazard ratios $\lambda_{r,s}(a)$. Migrants may have specific characteristics that are highly valued in the labour market, and which can accelerate their access to a first job. One example is the use of informal job-search channels (such as networks of migrants) to obtain a first job. The availability of these channels is likely to be a non-random characteristic, highly correlated with both migration status and labour market outcomes. Others characteristics, such as attitude towards work or discrimination from the local population, can also influence the length of transition.

The weight of these unexplained factors can be estimated through decomposition methods. Oaxaca-Blinder (Blinder, 1973) decomposition techniques have been extensively used in the labour economics literature to decompose gaps (usually wage differentials) in linear models into an explained/endowment part and an unexplained/discrimination one.²⁴

²⁴ The original Oaxaca-Blinder decomposition is estimated by first obtaining the parameters from ordinary least square (OLS) regression for each group (here migrants - m - and resident - r), and then by defining a counterfactual situation. The counterfactual is determined by the value of the outcome

Many studies have attempted to adapt the regression-based decomposition when the relationship between the outcome studied and the covariates is not linear. The extension of the detailed decomposition to non-linear models is not straightforward and introduces a number of econometric challenges for estimating it without strong assumptions.²⁵ First, results are sensitive to the order in which variables enter into decomposition (the so-called path-dependency). Second, specific properties to the decomposition cannot be applied (notably the additive linearity and the mean conditional independence assumptions).

The Yun decomposition method (Yun, 2004) is an approximation of the Oaxaca-Blinder decomposition for non-linear models that handle path-dependency. This method uses counterfactual scenario by comparing the sample mean of the estimated function for migrants and locals.²⁶ Let us denote the subscript m for migrants and r for residents, while $F(X_m)$ and $F(X_r)$ respectively refer to the cumulated hazard function for migrants and residents. The mean difference in cumulated hazard between m and r can be expressed as follows:

$$\overline{F(X_m\beta_m)} - \overline{F(X_r\beta_r)} = [\overline{F(X_m\beta_m)} - \overline{F(X_r\beta_m)}] + [\overline{F(X_r\beta_m)} - \overline{F(X_r\beta_r)}]$$

The first term of the equation refers to the composition (explained) effect, that is to say, the part of the differential attributable to differences in individual characteristics. It reflects the counterfactual comparison of the gap in transition lengths from the migrant perspective, or in others words, the difference in outcome if migrants were given the residents' distribution of covariates. The second term is the part of the differential attributable to differences in coefficients. This (unexplained) effect reflects the residents' perspectives, which are the expected difference in residents' transition length if there were experienced migrants' behavioural responses to covariates. This unexplained factor captures differences in returns to unobservable characteristics and skills (such as search frictions, reservation wages, and level of productivity) that have led to selection into migration and are correlated with labour market outcomes.

The detailed decomposition in non-linear models, aiming to represent the specific contribution of each covariates to both the composition and structure effect, faces the problem of path-dependence. Yun (2004) uses weights derived from a first-order Taylor linearisation of equation (3) around X_r and X_m . The detailed decomposition can be re-written as:

$$\overline{F(X_m\beta_m)} - \overline{F(X_r\beta_r)} = \sum_{k=1}^K W_{Xk} [\overline{F(X_m\beta_m)} - \overline{F(X_m\beta_r)}] + \sum_{k=1}^K W_{\beta k} [\overline{F(X_m\beta_r)} - \overline{F(X_m\beta_r)}]$$

y that one group would have if it had the same values of covariates than the other group. The difference in sample mean $\overline{y_m} - \overline{y_r}$ is then decomposed into an unexplained – or structure – effect and an explained component – or composition or endowment – effect. There is discrimination when the structure effect is non-zero while the two groups have the same mean in observables (See Fortin et al. (2011) for a comprehensive literature review).

²⁵ The aggregate decomposition using counterfactual regression is possible regardless of the shape of the distributional statistics.

²⁶ Due to the Jensen inequality and the non-linear nature of the outcome, even if the two groups have identical means in observables, the decomposition does not result only in a structure effect. A remainder term is confounded with the unexplained effect, leading to an approximation of the discrimination factor (Bazen and Joutard, 2013).

where the weight functions $W_{\beta k} = \frac{\overline{X_{mk}(\beta_{mk} - \beta_{rk})}}{\sum_{k=1}^K \overline{X_{mk}(\beta_{mk} - \beta_{rk})}}$ is the coefficient weights reflecting the relative contribution of each covariate (based on the magnitude of the difference in the size of the effect) weighted by the mean value of the covariate in the resident group. The composition weights $W_{Xk} = \frac{\overline{\beta_{mk}(X_{mk} - X_{rk})}}{\sum_{k=1}^K \overline{\beta_{mk}(X_{mk} - X_{rk})}}$ reflect the relative contribution of each covariate based on the magnitude of the difference in the mean value of the covariate, weighted by the effect of the covariate in the migrant group. We apply this simple and path-independent method to disentangle the sources of migration and gender gaps in transition length.

5.2.2 Results

Table 4 shows that most of the raw gap in transition measurements 1 and 3 is due to the unexplained component. The unexplained effect quantifies the change in migrants' hazard when applying the non-migrants' coefficients to the migrants' characteristics (difference in structure). The unexplained component has a complex interpretation as it reflects one or more factors, including omitted characteristics, unobservable characteristics, differences in behaviour or preferences, or discrimination. These findings challenge the existing literature, which tends to focus on education and family background as determinants of labour market performance.

Table 4. Overall and detailed decomposition

Overall	Transition condition 1		Transition condition 2		Transition condition 3	
	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained
	0.145	1.218	0.135	0.066	0.048	0.257
Parent-primary	0.000	0.002	0.000	-0.037	0.000	-0.204
Parent-secondary	0.001	0.000	0.001	0.000	0.000	-0.003
Parent-higher	0.000	0.000	0.000	-0.001	0.000	-0.001
Primary level	0.021	0.004	0.021	-0.010	0.023	-0.004
Rural origin	0.001	1.292	0.001	0.000	0.000	-0.004
Male	0.010	0.010	0.010	-0.067	0.131	-0.381
Have children	0.000	0.001	0.000	-0.011	0.009	-0.026
Single	0.001	0.001	0.002	-0.004	0.001	0.000
Urban residence	0.001	0.021	0.000	-0.003	0.010	-0.007
15-19 y.o.	0.003	0.000	0.002	0.000	0.005	-0.004
20-24 y.o.	0.034	0.000	0.039	-0.012	0.022	-0.002
25-29 y.o.	0.007	0.001	0.006	-0.010	0.005	0.000

Source: Author's calculations based on SWTS-2015 in Uganda.

One interesting finding related to the first transition measurement is that the unexplained component is almost exclusively driven by the fact of coming from a rural area (for migrants) or having ever lived in a rural area (for non-migrants). The unobservable effect of this variable disappears when focusing on the non-child labourers (condition 2), suggesting that the results might be driven by difference in preference regarding child labour in rural areas. When the young person has never been a child labourer, only the difference in return to gender (through some discrimination effect or preference for family rather than work) influences the unexplained part of the gap between migrants and non-migrants transition lengths. However, the raw gap in the second transition measure (condition 2) is due to the explained component. This component reflects the main decrease in migrants' hazard if they had the same characteristics than non-migrants (difference in

endowments), or in other terms what the migrant gap in transition length would be if migrants and non-migrants would have the same characteristics: transition length would be higher for migrants. When we look at the detailed decomposition, we see that the gap is mainly due to differences in age cohorts and levels of education between migrants and non-migrants. The same observable factors explain also (in similar magnitudes) the explained component of the first transition.

The third measurement method (condition 3) leads to different results. Regarding the explained component, gender is shown to play the strongest role, although access to education, age cohort and having children are also shown to have some influence. However, the raw gap in school-to-work transition is mainly driven by the unexplained part, and more precisely by difference in returns to gender and education.

6. Main findings and conclusions

This paper analysed differences in the length of transition to first job between young people who have experienced migration and non-migrants. To this purpose, three methods are used to estimate the length of transition. Estimations based on the first method (condition 1, where the transition to first job is measured from birth and working children are included in the estimation), using a Cox-proportional hazard model, revealed that migrants experience a shorter transition than non-migrants. However once the second measurement method (condition 2, where the transition is measured from 14 years of age and child labourers are excluded from the estimation), the findings show no significant difference in transition lengths between migrants and non-migrants. Finally, the third measurement method (condition 3, measuring the transition from the end of schooling) finds that the transition is shorter for migrants than for non-migrants, although not in a significant way.

Further results highlight the need to take into account the heterogeneity of migrants. The findings differ widely according to the area of origin and destination: migration can accelerate the transition to a first job in urban areas, while urban-to-rural migrants have 92 per cent lower probability than rural non-migrants to have attained their first job at the moment of the observation. This result may be due to a mismatch between the qualifications held by workers coming from urban areas, and those required by rural employers. Results also differ widely according to the reasons for migration. In particular, while family-migrants enter a first job at an older age than non-migrants, the opposite is true for economic and marriage migrants. Whatever the destination, the school-to-work transition takes longer for migrant than non-migrant young women, while the opposite applies to young males.

The findings do not support any conclusion regarding discrimination based on sex, area of origin and residence, since individual characteristics such as age and education are different between migrants and non-migrants. A Yun's (2004) decomposition was performed to investigate if differences in transition length are due to observable characteristics, or rather to unobservable effects. Once again, the results differ according to the transition measurement method chosen. Under condition 1, it is unobservable factors, related to rural origin, which explain most of the advantage of migrants over non-migrants. Under condition 3, differences in the duration of the transition from education to first job are driven by explained and unexplained effects of gender and education.

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Annex I. Kaplan-Meier estimates: Further results

Table A.1 Kaplan-Meier failure function - Transition to a first job according to reason for migration

Years since T0	Non-migrants	Migrants			
		All types	Economic migrant	Marriage migrant	Family migrant
5	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.1372	0.0747	0.0355	0.0833	0.1067
14	0.3188	0.2431	0.1633	0.3077	0.252
20	0.7708	0.7232	0.6789	0.7756	0.7074
25	0.9604	0.9561	0.9451	0.9728	0.9478
29	0.9981	0.9969	1.0000	1.0000	0.987
Log-rank test					
chi2(1)		8.5	8.71	0.00	5.29
Pr2		0.0035	0.0032	0.9806	0.021

Table A.2 Kaplan-Meier failure function - Transition to a first job according to origin and destination areas

Years since T0	Destination: Urban areas			Destination: Rural areas		
	Non-migrants	Migrants		Non-migrants	Migrants	
		From rural	From urban		From rural	From urban
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0643	0.0149	0.0297	0.1597	0.1218	0.0714
14	0.1833	0.1194	0.1688	0.3604	0.335	0.1968
20	0.6719	0.5877	0.6457	0.801	0.8402	0.644
25	0.9372	0.9383	0.912	0.9674	0.9893	0.9485
29	1.0000	1.0000	1.0000	0.9975	1.0000	0.9742
Log-rank test						
chi2(1)		1.95	0.21		0.25	7
Pr2		0.1625	0.6429		0.6181	0.0081

Table A.3 Migrants heterogeneity - Cox PH estimations (hazard ratio)

Condition 1	Migrant (hazard ratio)	0.533***	0.544***	1.087**	1.109**	1.921***	1.962***	0.942	0.962
	St. Dev	0.102	0.107	0.036	0.049	0.372	0.377	0.048	0.052
Condition 2	Migrant (hazard ratio)	0.882	0.966	1.049	1.148	1.175	1.286**	0.988	1.081
	St. Dev	0.089	0.122	0.076	0.113	0.136	0.143	0.097	0.108
Condition 3	Migrant (hazard ratio)	1.044	1.033	0.933	0.923	0.912	0.903	1.020	1.010
	St. Dev	0.103	0.158	0.080	0.128	0.111	0.122	0.131	0.149
Sex		Female	Male	Female	Male	Female	Male	Female	Male
Area of current residence		Urban	Urban	Rural	Rural	Rural	Rural	Urban	Urban
Area of origin		Rural	Rural	Rural	Rural	Urban	Urban	Urban	Urban

Table A.4 Cox regressions on transitions to a first job by reason for migration

	Transition 1			Transition 2			Transition 3		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Economic migrants									
Migrant	0.807** (0.072)	1.036 (0.041)	1.951*** (0.427)	0.936 (0.093)	1.122 (0.085)	1.382* (0.239)	0.889 (0.125)	0.961 (0.084)	0.850 (0.167)
Mig*rural origin			0.585** (0.126)			1.035 (0.167)			1.019 (0.182)
Mig*Urban residence			0.469*** (0.100)			0.723* (0.124)			1.121 (0.246)
Mig*male			1.050 (0.077)			0.971 (0.139)			1.111 (0.213)
Observations	1,926	1,676	1,676	1,329	1,140	1,140	729	729	729
Marriage migrants									
Migrant	1.002 (0.090)	1.112*** (0.041)	2.041*** (0.448)	1.033 (0.112)	1.085 (0.085)	1.477** (0.262)	0.861 (0.117)	0.987 (0.082)	1.049 (0.214)
Mig*rural origin			0.562*** (0.124)			0.795 (0.149)			0.941 (0.199)
Mig*Urban residence			0.485*** (0.106)			0.678** (0.119)			0.958 (0.186)
Mig*male			1.021 (0.395)			8,090.202*** (22,713.509)			1.000 (0.000)
Observations	1,939	1,689	1,689	1,320	1,135	1,135	737	737	737
Family migrants									
Migrant	0.882 (0.086)	0.983 (0.037)	1.696** (0.371)	0.893 (0.103)	0.951 (0.072)	0.757 (0.152)	1.010 (0.170)	0.992 (0.105)	0.816 (0.223)
Mig*rural origin			0.567*** (0.121)			1.037 (0.191)			1.113 (0.283)
Mig*Urban residence			0.526*** (0.116)			1.144 (0.221)			1.525 (0.427)
Mig*male			1.095 (0.083)			1.440** (0.227)			1.079 (0.253)
Observations	1,915	1,677	1,677	1,307	1,132	1,132	710	710	710

