Refugee mobilities in East Africa : understanding secondary movements

Refugee Mobilities in East Africa: Understanding Secondary Movements

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There is significant policy interest in refugee migration, particularly in relation to "secondary movements" - the movement of refugees from the first country in which they arrive. Yet, there is very little theoretical or empirical research on refugee mobilities in the Global South, where the overwhelming majority of refugees reside. Existing literature on refugee migration focuses mainly on people who have already selected onward migration to the Global North. This leaves a gap in terms of describing, understanding, and explaining refugee migration patterns within and from low and middle-income regions of the world. Drawing upon cross-sectional data for Kenya, Ethiopia, and Uganda, we describe aspirations relating to mobility; and drawing upon panel data for refugees based in Kenya, we describe actual patterns of mobility. While a majority of refugees "hope" to migrate inter-regionally and a smaller majority "expect" to migrate inter-regionally, actual mobility patterns are very different. Whereas refugees are highly mobile, the overwhelming majority of their mobility is internal and most international migration is intra-regional. By describing these patterns for one region, the article challenges policy assumptions relating to secondary movement and offers a starting point for further comparative research on refugee mobilities.

Keywords: Refugees, mobility, migration, East Africa, secondary movement

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1 Introduction

There is significant policy interest in refugee migration. A range of initiatives have been created by countries in Europe and North America, for example, to reduce refugees' onward migration from poor to rich countries. But how much do we know about the migration, mobility, and residency choices of refugees? After the initial flight to a neighbouring country, under what conditions do refugees choose to remain in border camps, to move to a city within the same country, or to move to another country? These questions have become increasingly politicized due to a particular focus on the South-North "secondary movement" of refugees.

There is significant literature on the migration choices of asylum seekers (Robinson and Segrott, 2002; Neumayer, 2004; Hatton, 2009; Crawley, 2010; Brekke and Aarset, 2009; Brekke et al., 2017; Dustmann et al., 2017; Czaika and Hobolth, 2016; Matsui and Raymer, 2020) and on "irregular migration" (De Haas, 2008; Duvell, 2014; Triandafyllidou, 2010; Koser and McAuliffe, 2013; Kuschminder et al., 2015; Mallett and Hagen-Zanker, 2018). Much of this research is based on data collected from asylum-seekers following their arrival in rich countries – particularly in Europe – and attempts to identify the range of factors that determine the choice to migrate, the selection of the destination country, and the ways in which journeys are shaped in transit.

Although this work tells us much about the migration choices of asylum seekers who have arrived in rich countries, it provides limited insight into refugee migration because it entails an inherent selection bias. It focuses more narrowly on the people who have already selected into onward migration. Rarely has research on refugee migration been undertaken in first countries of asylum or in refugees' regions of origin in the Global South. This is however needed to examine the full range of mobility choices made by refugees - including intra-camp, intra-urban, inter-urban, intra-regional, and inter-regional relocation, for example. Given that 86% of refugees are in low and middle-income countries and 73% are in an immediate neighbouring country, this is a particularly important gap (UNHCR, 2021). Relatedly, a consequence of focusing on

international migration has been the neglect of mobility within countries of first asylum and regions of origin.

In the absence of such research, policy-makers and academics have made assumptions about refugee mobility. Within the speeches of politicians, secondary movement is almost always presumed to involve South-North migration and to be predominantly irregular (e.g. Zimmermann 2009; Collyer et al. 2012). Policy-makers have also made a series of assumptions about the role that particular interventions, such as livelihoods programmes or resettlement play in shaping secondary movement. Many policy-makers assume that better humanitarian or development assistance can reduce "secondary movement" (e.g. UNHCR 2005; European Commission 2016). Meanwhile, academics have generally assumed that the "migration hump" theory derived from research on migration and development (De Haas, 2007; Clemens, 2014) applies equally to refugees, suggesting that better development outcomes for poor refugees may increase their willingness and ability to engage in onward migration (Czaika and de Haas, 2017; Ruhe et al., 2021). However, with few exceptions, there has been a lack of evidence to arbitrate between competing claims about the role that livelihoods programmes, for example, play in influencing secondary movement (Moret, 2006; Mallett et al., 2017).

In order to address the gap in research on refugee mobility within the Global South, we draw upon first-hand quantitative and qualitative data collected in three refugee-hosting countries in East Africa: Ethiopia, Kenya, and Uganda. Our dataset covers refugees and host community members, cities and camp-like contexts, and includes some panel data. It is based on representative samples of the main refugee nationalities and of the host population living nearby, and includes a range of socio-economic variables as well as questions relating to mobility. Qualitative research was also undertaken across all of the contexts in order to explore refugees' perceptions and understandings.

Drawing upon this data, the primary objective of our research is to quantify the different patterns of movements of refugees, exploring both migration aspirations and

actual migration. In a second step, we also attempt to explain patterns of movement using qualitative material and exploratory regression analysis.

The article offers three main empirical findings, which collectively challenge dominant policy assumptions about secondary movements.

First, refugees are highly mobile. In Kenya, we estimate that 23% of camp refugees and 37% of urban refugees change their primary residency in a given year. These annual rates of residency change are much higher than in the host communities. This indicates that the socio-economic lives of refugees in their first countries of asylum are not sedentary, despite the common characterisation of immobility within research and policy.

Second, while policy debates focus principally on refugees' movements to the Global North, our data show that migration to the Global North represents only a small part of refugee mobility. Our analysis also highlights the importance of distinguishing "hope", "expectation", and "action" when studying refugees' international mobility. While a majority of refugees hope to migrate internationally, and a smaller majority expect to migrate internationally, actual international migration by refugees in our sample is relatively rare and most international movements are to refugees' home country or to other countries of the Global South. Most refugee mobility is intra-urban, inter-urban, and intra-regional.

Third, our data shows that most refugee mobility is internal. This includes camp-urban movement and inter-urban movement, as well as intra-urban movement. The main reasons provided to justify internal mobility include the search for new work opportunities and real estate dynamics such as renovation, demolition, and rent increases.

Our study proceeds as follows. Section 2 situates our work in the literature on international and internal migration. Section 3 describes the study contexts, and Section 4 describes the data and the methods used for the analysis. Sections 5 and 6 present our findings. Section 7 concludes by highlighting the implications of the research for dominant policy assumptions relating to secondary movement.

2 Refugee mobilities in the South

There are three relevant strands of literature for thinking about refugee mobility, each with their own strengths and weaknesses. They can be broadly categorized as a) asylum decision-making, b) migration and development, and c) mobilities.

First, the literature on asylum decision-making builds upon two prior bodies of work on "migration theory" and "forced migration theory". Migration theory has long tried to understand and explain international migration decision-making, including with references to neo-classical economics, dual labour market theory, network theory, institutional theory, and migration systems theory (e.g. Massey et al. 1993; Castles and Miller 2014). Forced migration theory has been more limited but reflects upon the way in which "proactive" and "reactive" migration interact to identify forced migration, as characterised by a combination of structure and agency in shaping migration choice (e.g. Richmond 1993; Van Hear 2006; Piguet 2018).

The majority of the empirical literature on the migration choices of asylum seekers focuses on the "secondary" movement choices from poor to rich countries. It tends to be based on surveys or qualitative interviews with people who have moved onwards to Europe, whether from Africa, the Middle East, or elsewhere, describing the reasons for their movement, the dynamic nature of their decision-making, and their experiences of the journey (Neumayer, 2004; Hatton, 2009; Crawley, 2010; Czaika and Hobolth, 2016; Matsui and Raymer, 2020; Brekke et al., 2017; Dustmann et al., 2017). This research has a series of strengths. It examines i) why refugees move from regions of origin to seek asylum in rich countries; ii) how and why asylum seekers select particular destinations; and iii) how their journeys are shaped in transit. Notably, it identifies and theoretically organises the variables that shape asylum-seeker and refugee migration choices and behaviours - such as destination country policy, experiences in transit, resources, networks, information, and the role of agents (Robinson and Segrott, 2002; Brekke and Aarset, 2009; Kuschminder et al., 2015). This body of research has offered increasing nuance over time, for example, by focusing on "journey" as a dynamic and

multi-faceted process (e.g. Collyer 2010; Collyer and De Haas 2012; Crawley et al. 2017. Research has increasing explored how migrants' perceptions of what policies mean, rather than the policies themselves, shape destination preference (Crawley and Hagen-Zanker, 2019).

However, for our purposes - of understanding refugee mobility within the Global South - this body of literature has disadvantages. It relies upon a post-hoc focus on refugees already in rich countries - generally Europe, or, exceptionally, those in transit. Practically none of the research begins its analysis with a representative sample within the country of origin or a country of first asylum. The research therefore involves a selection bias, focusing on a small subset of the refugees who do engage in international and secondary movement.

Second, and in contrast, the migration and development literature does focus on migration from the Global South (mainly to the Global North). In particular, it uses macro-economic and micro-economic data to explore the relationship between migration decision-making and indicators of development, such as income and wealth (De Haas, 2008; Clemens, 2014). It generally finds that emigration increases with income levels up until a certain threshold of income, beyond which the correlation becomes negative. This inverted U relationship also holds when examining migration intentions in place of actual migration (Dustmann and Okatenko, 2014). The literature has examined a range of mechanisms underlying the relationship, and affecting willingness and ability to emigrate, including overcoming credit constraints and migration costs (McKenzie and Rapoport, 2007; Angelucci, 2015; Bazzi, 2017; Cai, 2020; Gazeaud et al., 2021), the strength of networks (McKenzie and Rapoport, 2007; Sterck, 2019), and self-selection based on skills and education (Borjas, 1987; McKenzie and Rapoport, 2007; Orrenius and Zavodny, 2009; Dao et al., 2018; Sterck, 2019).

This literature has significant advantages for our purposes. Unlike most of the literature on asylum decision-making, this literature includes micro-level studies using data often collected in the South. It also develops a set of hypotheses relating to the

relationship between particular development indicators and migration decision-making. However, it also has limitations. In particular, it has lacked theoretical or empirical consideration of whether and how the "migration hump" relationship applies specifically - or differently – to refugees, or other groups of forcibly displaced people (Ruhe et al., 2021), and there are reasons to consider this: as people who had chosen not to emigrate prior to being affected by conflict or persecution, their mobility preferences may be differently affected by development variables.[1]

Third, there has been a growth in broader mobilities literature, which examines the movement of people beyond international migration, including a focus on internal mobility and decision-making relating to residency (Sheller and Urry, 2006; Cresswell and Merriman, 2011; Urry, 2012; Jensen, 2013). This work, mainly derived from sociology and geography, attempts to recognise mobility as an embedded and "normal" aspect of social life. In economics, an important literature tries to identify the opportunities offered by internal migration and the barriers to internal movements (Lagakos, 2020). This literature has significant advantages for our purposes. It broadens our understanding of migration beyond "international migration" to recognise the importance of, for example, internal migration, immobility, and residency. It recognises mobility as part of everyday social life, and integral to other aspects of socio-economic and socio-cultural behaviour. However, with few exceptions, it has rarely been applied specifically to refugees (e.g. Gill et al. 2011; Nimführ and Sesay 2019; Zuntz 2021).

These strands of literature therefore offer important points of departure for our analysis, but they collectively foreground three sets of biases. First, a positionality bias. The literature is mainly Eurocentric: it is concerned with whether people come to Europe or plan to come to Europe. Only then is their mobility regarded as analytically relevant. Other forms of mobility such as intra-regional "secondary movement" by refugees remain under-researched. Second, an international bias. Although there is a broader literature on internal migration (e.g. Lagakos 2020), existing literature

[1]We recognise that refugee decision-making can be understood along a spectrum of extreme involuntariness to extreme voluntariness. See, for example, Erdal and Oeppen (2018).

on refugees focuses on international migration. Even with the shift to transcend the origin/destination dichotomy in migration research (e.g. Collyer 2010; Kuschminder and Waidler 2020), there remains an international/domestic separation, which marginalises the importance of domestic mobility and relocation such as intra-camp, inter-camp, intra-urban, and inter-urban refugee mobility. Third, an action bias. With few exceptions, existing work looks post-hoc at those who have moved. In doing so, it entails a selection bias in failing to understand characteristics and perspectives of those refugees who do not engage in "secondary migration". It also therefore cannot take into account differences between, for example hope, expectation, and action, or consider variation in each of these.

We aim to explore refugee mobilities in the Global South in a way that can attempt to partly address these three biases within the existing literature. As a starting point we make two different sets of analytical distinctions, each intended to address these biases. First, we study all forms of relocation regardless of geographical scale, including intra-urban/camp, inter-urban/camp, intra-regional migration, and inter-regional migration. Although most of the policy and academic literature has focused on inter-regional migration, we suggest this focus sidelines the forms of mobility that are most common in the lives of refugees. Second, we focus on three phases of mobility-related decision making: hope, expectation, and actual migration (for similar conceptualisations of the phases of migration decision-making, see for example Koikkalainen and Kyle 2016, Carling 2017, and Carling and Collins 2018). One of the reasons for this disaggregation is to be able to explore the relationship between capacity to migrate and aspirations for migration. We might consider, for instance, that "hope" is the least conditioned by capacity, followed by "expectation", and then "actual" migration. Whether this distinction makes a difference for refugees, and whether it is conditioned by indicators of capacity such as income levels is an empirical question. Figure 1 heuristically illustrates these three phases, which in practice need not necessarily be linear, but at least enable migration preferences to be disaggregated in ways that nuance the common use of "aspirations" as an indicator of preferences. We use this simple framework as

a structuring device for the paper: we examine migration expectations and hope in Section 5 and actual movements in Section 6.

[Figure 1 about here]

3 The East Africa context

This paper uses first-hand quantitative and qualitative data collected between 2016 and 2019 in Kenya, Uganda, and Ethiopia. While these three countries have a long history of accommodating refugees from neighbouring countries, each one offers different regulatory contexts relating to refugees.

Kenya hosted approximately 490,000 refugees at the outset of our study in 2016. Our data collection in Kenya covered two sites: Kakuma refugee camp, which accommodated approximately 164,000 refugees, and Nairobi, where about 65,000 refugees resided. Kenya imposes an encampment policy, which restricts refugees' right to work and to move freely. There is nevertheless a de facto "legal pluralism" within Kenya, in which official restrictions on refugees are differently enforced and implemented in different parts of the country. As such, refugees in Nairobi generally enjoy greater economic freedom compared to those residing in Kakuma.

Ethiopia is a destination and a transit country for refugees. At the time of our fieldwork in 2018, the country hosted around 900,000 refugees. Our research sites included the Dollo Ado refugee camps and Addis Ababa. The Dollo Ado refugee camps hosted around 220,000 almost exclusively Somali refugees, given its proximity to the Somali border. Similar to Kenya, the Ethiopian government has for a long time operated an encampment policy towards refugees within the country. Two legal exceptions to encampment have allowed refugees to live in Addis: the Out-of-Camp Policy (OCP) and the Urban Assistance Program (UAP). The former is exclusively for Eritrean refugees

who are able to support themselves or be supported by relatives. The latter is for refugees with medical, protection, or humanitarian concerns that camp-level facilities cannot adequately address. At the time of our research, there were approximately 17,000 Eritrean refugees with OCP status and 5,000 refugees on the UAP in Addis. In our study, we included Eritrean refugees with OCP status and Somali refugees with UAP status. Regardless of where refugees reside, the socio-economic rights of refugees are severely constrained in Ethiopia.

Of the three countries, Uganda offers the most generous regulatory environments for refugees. Uganda's Refugee Act of 2006 provides refugees with the right to work and to move freely. At the time of fieldwork in 2018, Uganda was the largest refugee-hosting state in Africa, with more than 1.1 million refugees from various countries. We conducted our fieldwork in the Nakivale refugee settlement, Africa's oldest refugee camp, which hosted around 105,000 refugees at the time of our fieldwork, and Kampala, which hosted more than 100,000 refugees.

4 Sequencing quantitative and qualitative research

The primary objective of our paper is descriptive: we use quantitative data to draw a representative picture of the mobility patterns of refugees and host populations. In a second, more exploratory step, we use qualitative data and regression analysis to explain mobility patterns.

We note that all the participants in the quantitative and qualitative surveys have provided appropriate informed consent orally, before being interviewed.

4.1 Cross-sectional data on migration aspirations and hope

We collected data on 8,970 refugees living in Kenya, Uganda, and Ethiopia and 7,638 members of the host populations. The data collected in each context are representative

of the main refugee populations living locally and of the host populations living nearby. For each population, we used simple random sampling or two-stage cluster sampling to select a representative sample of households. We then interviewed multiple adults in each household. Table A.2 shows the sample sizes used for analysis. The sampling strategies used in the different contexts and the sample characteristics are described in Table A.4. Our analysis below uses sampling weights to account for the sampling design.

In each location, we recruited a team of refugee and host enumerators. After a week-long training and piloting of the survey, enumerators were deployed to the field under the supervision of a least two research assistants, one of them recruited in-country. The surveys were administered using tablets. The questionnaires were designed such that key variables could be compared across countries. The questionnaires included modules on a range of themes such as demographics, economic activities, income, consumption, assets, networks, mobility, health, well-being, and social cohesion. The questionnaires were translated into the vehicular languages of refugee and host populations. Rates of non-response were very low in all context, especially in camp-like settings.[2]

The analysis of cross-country data will focus on two main outcomes. First, a variable measuring expectations. Each refugee was asked the question "Where do you expect to be living in 3 years?" In addition, the surveys in Ethiopia included a question to distinguish hope from expectations: "Where do you hope to be living in 3 years?" This question was asked before the question related to expectations.[3]

[2]For example, consent rates were 99% in Kakuma and 96% in Nairobi.

[3]These questions are subjective in nature and hence more susceptible to mismeasurement problems. First, respondents may intentionally lie to the interviewer if the respondent does not trust the survey, especially if the respondent does not want to reveal an intention to migrate through illegal channels. To minimize this possibility, we recruited enumerators who were part of the community and worked with community leaders to establish trust between the respondents and the research team. The fact that a majority of respondents reported hoping and expecting to move abroad suggests that misreporting is not a major issue in our study. A second source of bias could come from misinterpreting the questions. We trained our enumerators such that they were fully equipped to handle such situations. There were occasions when respondents reported not being able to distinguish between "expectation" and "hope" due to fatalistic or religious beliefs (e.g. "as God wills"). In response, we would argue that these types of answers nevertheless reflect the respondent's real expectation and hope. The fact that we obtain notably different answers for the "expectation" and "hope" questions in Ethiopia suggests that at least some proportion of the respondents were able to distinguish between expectation and hope. We so, however, recognize that these concepts are fuzzy, implying that mismeasurement is possible.

4.2 Panel Data on Actual Mobility in Kenya

We conducted a second-wave survey in Kenya, three years after the first wave in Kakuma and two years after the first wave in Nairobi. The second-wave survey was designed to study refugee mobility. We aimed to track all households and individuals that were interviewed at baseline. When the entire household had moved outside the survey area, our teams of enumerators were asked to conduct a movement survey to gather information about where the household members moved to and the reasons associated with the move.[4] If a household was found in the survey area but one or more of its members had moved, a similar movement survey was administered for all the members who had moved.

As shown in Table A.3, 1,307 refugees and 580 Kenyans were found[5] in the second wave in Kakuma, and 1,081 refugees and 893 Kenyans were found in Nairobi. This table demonstrates the importance of our analysis and – more generally – of accounting for refugee movements in panel data collected in refugee contexts. Nearly two-thirds of refugee households had moved between the two survey waves, and, within households, nearly half of the adults had moved. Studies ignoring these movements overlook an important reality. Table A.3 also shows that a small proportion of refugee households (12% in Nairobi and 4% in Kakuma) and a small proportion of individuals within these households (also 12% in Nairobi and 4% in Kakuma) could not be located at all and are therefore missing from the analysis.

[4]Enumerators were trained to administer these surveys following a protocol written before the launch of the survey. The steps included first calling the surveyed households if a phone number was provided, and second surveying neighbours, caretakers, community leaders, and nearby shop keepers to obtain information about the household. Following these two steps, households were re-interviewed in person if they had moved within the survey areas. In Nairobi, we defined research areas as Eastleigh, Kasarani, Githurai, Kayole, and Umoja. In Kakuma, the research area was the whole Kakuma refugee camp. Because of budget constraints, we did not seek to directly re-interview respondents who moved outside of these research areas. For these attrited households, we only collected data on where they moved to and reasons behind the relocation by asking people living in the neighbourhood.

[5]These individuals were either re-interviewed or we had obtained information about their new locations.

4.3 Exploratory regression analysis

The data were collected with the primary aim to draw a representative picture of the mobility patterns of refugee and host populations. Most of our analysis is therefore descriptive, using means, proportions, and figures to represent the data.

We complement the descriptive analysis with exploratory regression analysis. Our objective is not to identify the causes of migration and aspirations. Rather, we aim to identify some predictors of migration and aspirations and shed light on possible mechanisms that could be explored in future research. With the cross-country data, we estimate the following regression equation:

$$A_i = \alpha + \beta X_i + \mu_f + \gamma_a + \sigma_n + \kappa_e + \lambda_{EA} + \nu_o + \epsilon_t \quad (1)$$

where A_i is a measure of migration expectations or hope and X_i is a vector of explanatory factors measured contemporaneously. To limit the risk of omitted variable bias, all regressions include year of fleeing fixed effects (μ_f), year of arrival fixed effects (γ_a), nationality fixed effects (σ_n), enumerator fixed effects (κ_e), enumeration area fixed effects (λ_{EA}), and region of birth in country of origin fixed effects (ν_o).

With the panel data, we estimate the following regression equation:

$$\Delta M_t = \alpha + \beta X_{t-1} + \mu_f + \gamma_a + \sigma_n + \kappa_e + \lambda_{EA} + \nu_o + \epsilon_t \quad (2)$$

where ΔM_t is a dummy identifying whether refugees have migrated between the two survey waves and X_{t-1} is a vector of baseline characteristics that may predict migration.[6] Regressions using panel data also include fixed effects.

The outcome variables used in the analysis are defined as follows:[7]

[6] We note that the first-difference and difference-in-differences estimators (and more generally all estimators requiring the measurement of X_t) cannot be used in our analysis because explanatory variables are unobserved at time t for individuals and households who moved.

[7] For all outcome variables, values are coded as missing if the household cannot be found.

- Internal: When analysing expectations/hope with cross-sectional data, the variable equals one if the individual expects/hopes to move to another location within the host country, and zero otherwise. When studying actual migration with panel data, the variable equals one if the individual was found in Wave 2 to have moved to another location within Kenya and zero otherwise. Local movements - i.e. refugees moving within Nairobi or within Kakuma - are coded as zero.

- International: When analysing expectations/hope with cross-sectional data, the variable equals one if the individual expects/hopes to move to a destination outside the host country, and zero otherwise. When studying actual migration with panel data, the variable equals one if the individual was found in Wave 2 to have moved to a destination outside Kenya, and zero otherwise.

- Migrated: The variable is the sum of the variables "Internal" and "International".

The vector of explanatory variables X includes three main categories of predictors: i) living standards and financial constraints, ii) networks, and iii) skills and education levels. We measure living standards by constructing a summary index that aggregates data on income, assets, dietary diversity, and subjective well-being using the procedure proposed by Anderson (2008). We capture the degree to which an individual is financially constraint by using a savings dummy and a loan dummy. Second, we measure the strength of an individual's network using dummy variables identifying refugees receiving remittances and refugees having networks in the Global North. Lastly, we measure the skills of an individual by their years of education, vocational education, and the level of command of English and of the local vehicular language. Regressions also include a long series of control variables.[8] All variables are defined in Table A.5 in Appendix C. Descriptive statistics are shown in Tables A.6 and A.7.

We emphasise that regression analysis is exploratory and results should be interpreted cautiously. Despite the numerous explanatory variables and fixed effects

[8]Control variables include age and its square, a gender and marital status dummy variables, measures of poor physical and mental health, a measure of trust in the host population, the dependency ratio, and a dummy identifying individuals originating from an urban background.

included in the regressions, omitted variable bias is likely in the cross-country and panel analysis. Reverse causality is also possible in the cross-country analysis. Significant results should not be interpreted as causal and lack of significance should not be interpreted as absence of effect.

4.4 Explaining migration patterns using qualitative data

Our quantitative research is complemented by in-depth qualitative research across all research sites, enabling us to narrate our data through compelling human stories and examples and explain migration patterns. We also use qualitative data to explore themes and questions that cannot be studied with quantitative methods.[9] Our central qualitative methods were focus group discussions (FGDs) and semi-structured interviews. From 2016 to 2019, we conducted more than 600 interviews with refugees and members of the host populations across the three countries. In addition, in order to triangulate the information and to obtain different perspectives, we interviewed non-refugee stakeholders, including staff members of relevant UN agencies and NGOs, as well as local and national government officials in charge of refugee affairs.

Our qualitative data collection was systematically implemented by following a two-step process. First, in order to nurture a good contextual understanding, we began our data collection by organizing a number of FGDs with diverse groups of refugees, taking into account their nationality, gender, and age, for instance. The qualitative data gathered during this initial phase also informed the design of survey questionnaires based on local contexts. Second, we shifted to semi-structured individual interviews with specific questions on themes related to the motives and patterns of various types

[9]We emphasise that not all questions and themes can be equally studied with quantitative and qualitative methods. For example, qualitative data shows that the requirement to obtain a movement pass is a strong barrier to refugee mobility in Kenya, but this barrier cannot be studied using quantitative data because all refugees in Kenya face the same constraint. Similarly, increasing rents has been consistently reported as a key driver of mobility during qualitative fieldwork in Nairobi; yet quantitative data cannot be easily used to study this phenomenon because rental prices are only observed for refugees who do not move. In contrast, describing the prevalence of different patterns of mobility and studying the relationship between living standards and mobility is possible with quantitative methods, but challenging with qualitative data. Quantitative and qualitative analyses are therefore often supplementary rather than complementary.

of movement which had emerged during the initial rounds of FGDs. In order to protect the privacy and safety of interviewees, all respondents are either anonymized or given pseudonyms in this paper.

We follow Figure 1 in our analysis, exploring migration expectations and hope in Section 5 and actual migration patterns in Section 6.

5 Migration expectations and hope

Most refugees expect to move from their host country within three years after the survey (Figure 2 and Table A.1). However, in most contexts, refugees do not expect to return to their country of origin. An exception is the South Sudanese community in Kakuma (28%) (see Section 5). Instead, our data shows that as many as 62% of refugees expect to leave their host countries for a third-country (i.e. not their host or home country). The proportion of refugees expecting to move to a third-country is particularly large for Somali refugees in Kakuma (93%), Nakivale (65%), and Kampala (73%). During a series of FGDs in Kakuma, Somali refugee participants highlighted several reasons explaining their desire to move: shrinking business opportunities, police harassment, decreasing amount of food rations, worsening security, and poor social services such as education and medical facilities. In comparison, only 3.7% of respondents in the host community expect to have moved to another country three years after the survey.

[Figure 2 about here]

Only 17% of refugee respondents expected to stay where they were living. This percentage is low compared to host community respondents, who overwhelmingly indicated they would stay in the same area (73%). There are a few contexts where a minority of refugees think they would not move; for instance, Somali refugees in Nairobi (34%), Addis (34%), and Dollo Ado (47%), and nearly half of Eritrean refugees in Addis

(45%) expect to remain where they live. According to our qualitative interviews, those who do not have the resources or networks necessary for onward migration assess their capacity to migrate as limited and view that staying in their current location is a likely scenario for them.

We explore the predictors of migration expectations using regression analysis in Tables A.8 to A.10 in Appendix. Households with higher living standards report being less likely to migrate internally, ceteris paribus. However, this relationship does not appear to be robust across sites. We find no significant relationship between living standards and expectation to move internationally, which suggests that financial constraints are not an important determinant of aspirations. This null result is in accordance with the literature on the importance of the various determinants of non-refugee migration, which also finds that income per capita in origin countries is not an important predictor of migration aspirations (Sterck, 2019).[10] We find that refugees with savings are five percentage points more likely to expect to migrate internationally;[11] this latter result should however be interpreted with extreme caution as reverse causality is likely.

In line with the literature on migration aspirations, we find that network variables significantly predict expectations to move, especially internationally. We find a positive and significant relationship between having received remittances and migration expectations in the pooled sample. Similarly, there is a positive and significant relationship between having family networks in high-income countries and expectations to migrate internationally. Refugees speaking English are also more likely to expect to migrate, especially abroad. This latter relationship is only visible in camp-like contexts (Table A.10 in Appendix).

Using data from Ethiopia, we examine differences between migration expectations and hope (Figure 2). Across urban and camp settings, refugees generally hope to move

[10]This null result holds when disaggregating the data by survey location, except in Kakuma were we find weak evidence of a U-shaped relationship between living standard and expectation to migrate internationally.

[11]This relationship appears to be driven by refugees living in camp-like settings (Table A.10 in Appendix).

outside Ethiopia in the next three years. In Addis Ababa, virtually all Eritrean and Somali refugees hope to be away from Ethiopia, but only 52% of Eritrean refugees and 59% of Somali refugees acknowledge that migrating to a third-country within the next three years is realistic. The trend is similar in Dollo Ado, where 70% of Somali refugees aspire to move to a third-country, but only 37% think that is the most likely outcome. Meanwhile, unlike those living in Addis, some Somali refugees in Dollo Ado hope and expect to return to Somalia.

As the overwhelming majority of refugees in Ethiopia hope to move to a third-country, there is limited variation that can be studied using regression analysis. It is therefore not surprising that we find no clear relationship between living standards and hope to migrate internationally using data collected in Ethiopia (Table A.11 in Appendix). Again, this null result is in accordance with the literature, which finds that income is not an important determinant of migration aspirations for non-refugee populations (Sterck, 2019). We find some evidence of a positive relationship between command of English language and hope to migrate, which is mainly driven by the hope to migrate internationally. We also find a significant and negative relationship between hope to migrate internally and access to remittances.

Semi-structured interviews with refugees living in Ethiopia provide some insights into the complexity behind expectations and hopes to migrate internationally. Fear for security in exile can result in increasing their hope to migrate internationally. One example is the effect of the peace agreement between Ethiopia and Eritrea in 2018, as one Eritrean refugee in Addis Ababa indicates:

> This [peace agreement] is problematic for Eritrean refugees. Now they [Eritrean Government] can come and search for refugees in Ethiopia. They can send secret services more easily. This is another reason why I don't want to stay in Ethiopia. This country may not be safe for us.

The hope to migrate to the Global North is also born out of the persistent sense of

idleness and hopelessness present in Somali and Eritrean refugee communities, who are not allowed to work or register businesses. One Somali refugee interviewee in Addis Ababa explained:

> The interest in moving to Europe or other Western states is still strong. Refugees see no future in Ethiopia. Even though risky, many want to travel, especially the youth. They say [that it is] "changing life". Even after completing university education, we get no jobs [in Ethiopia]. We cannot return to Somalia now. We feel stuck here.

Yet not all refugees who aspire to migrate can realistically pursue that option because of limited financial means and high cost. According to one of the Eritrean refugee representatives in Addis Ababa:

> Many youth try to make a travel plan to Europe, but the cost is prohibitive as a whole trip costs around 6,000 USD. The usual route is from Ethiopia to Sudan and then Libya. Smugglers take them to Libya and there they ask for more money to cross the sea.

6 Actual migration patterns

The previous section showed - using cross-sectional data - that a large majority of refugees expected to move to a third-country within the three years following the survey. In this section, we use the panel data collected in Kenya to study whether refugees are able to realize their expectations and examine the characteristics and predictors of migration using qualitative evidence and regression analysis.

The share of refugees who moved between the two waves of the panel dataset is very large (see Table 1). In Kakuma, 54% of the surveyed refugees moved within three years, and 60% of the surveyed refugees in Nairobi moved within two years. This

translates to annual movement rates of 23% and 37% amongst the refugee communities in Kakuma and Nairobi respectively.[12] The annual movement rates are significantly higher compared to those observed in the host communities —16% in Kakuma and 27% in Nairobi.

[Table 1 about here]

We observe important differences across sites. Movements from Nairobi are mainly internal. Our data suggests that 37% of refugees living in Nairobi move every year. Nearly 70% of these movements are within Kenya, while only 30% is international. The patterns are reversed in Kakuma. About 23% of refugees move every year. About 31% of these movements are international and 69% are international.

We also find substantial differences across nationalities within each site. Repatriation is quite frequent for Somali and South Sudanese refugees in Kakuma, but rare for Congolese refugees in Kakuma and Nairobi. Third-country resettlement is rare but possible, especially for those staying in camps. Yet, very few South-Sudanese refugees in Kakuma benefit from this opportunity. A non-negligible proportion of refugees moved internationally, but to non-Western countries. Besides international migration, many refugees moved locally between the survey waves, especially within Nairobi. Migration between the camps and the capital city is also frequent.

We use regression analysis to identify the main predictors of actual migration. We considered all destinations and contexts jointly (Table A.12 in Appendix), but also separately to explore whether different variables predict international versus internal migration in Kakuma and Nairobi (Table A.13 in Appendix). The relationship between living standards (measured by an index) and migration differs for internal and international migration. For internal migration, our data suggests that the relationship is

[12]We use the following formula to compute the average movement rate per year (r): $r = 1 - \left(\frac{100-r^{raw}}{100}\right)^{1/years}$ where r^{raw} is the percentage of individuals in Wave 1 who were found to have left in Wave 2, and years is the number of years between the two waves, i.e. two for Nairobi and three for Kakuma.

U-shaped: the majority of refugees that lie in the middle of the wealth distribution appears to be less likely to move internally compared to the extremely poor or comparatively richer. For international migration, results are consistent with an inverted U-shaped relationship which peak about 0.9 standard deviations above the mean of the living standard index. The relationship between living standards and actual migration is therefore positive for most refugees, except for the few at the upper-end of the wealth distribution. This result is mostly driven by refugees in Kakuma. The identification of an inverted U-shaped relationship is consistent with the literature on the migration-hump, which finds that the relationship between income and migration is upward sloping up to a certain level of income after which the relationship is downward sloping (Clemens, 2014). Our data does not allow us to determine whether the peak identified in our data corresponds to higher or lower levels of income than the peak identified in the migration-hump literature. More research would also be needed to test whether a similar inverted U-shaped relationship is observed in other contexts.

We find no evidence that having a network abroad or receiving remittances affects refugees' decision to move.[13] This null result is quite interesting because it contrasts with the literature, which typically finds that the extent of networks abroad is the most important predictor of actual migration (Sterck, 2019). We find some evidence that human capital partly predicts international migration, as individuals with vocational training are more likely to migrate internationally, and individuals with mental health issues are less likely to migrate internationally. We note that migration expectations at baseline significantly predict actual migration between the two survey waves (Table A.14 in Appendix).

The large differences in the prevalence of migration across sites and nationalities highlight the complexity of refugees' migration strategies. In the remainder of the section, we combine descriptive statistics and qualitative evidence to characterise the

[13]Receiving remittances is positively correlated the living standard index. As regression results are to be interpreted "ceteris paribus", the coefficient of remittances captures the specific effect of remittances that is not mediated through living standard. In other words, the regression coefficient captures whether there is something specific about remittances that is not already captured by the living standard index.

patterns of international movements (Section 6.1) and internal movements (Section 6.2), as understood by refugees.

6.1 International movements

Overall, 37% of refugees in Kakuma and 18% of refugees in Nairobi migrated internationally at some point between the two survey waves (between 2016 to 2019 for Kakuma and between 2017 and 2019 for Nairobi). This translates into an average international migration rate of 14% for refugees in Kakuma and 9.6% for refugees in Nairobi.[14] International movements are low relative to their aspirations for refugees in Kakuma and Nairobi. By matching individuals' aspirations in Wave 1 of our data collection and their movements in Wave 2, we find only 11% of those who expected to move actually moved abroad.[15]

Figure 3 shows the destinations of the refugees in our sample who migrated internationally during the study period. Patterns are varied and differ for refugees who were living in Kakuma or Nairobi at baseline. In what follows, we study international movements, distinguishing migration to the Global North, the home country, and the Global South.

[Figure 3 about here]

6.1.1 Migration to the Global North

Refugees have two main routes to migrate to the Global North: migration to Canada, the US, and Australia (usually through UNHCR's resettlement programme), and migration

[14] We computed average movement rate per year by using the following equation: $r = 1 - \left(\frac{100-r^{raw}}{100}\right)^{1/years}$ where r is the estimated average yearly migration rate, r^{raw} is the percentage of individuals in Wave 1 who were found to have left in Wave 2, and $years$ is the number of years between the survey waves.

[15] Using regression analysis, we find a significant and positive relationship between expectation and actual migration status (Tables A.14 in Appendix).

to Europe (usually through irregular channels). Annual movement rates for resettlement are low, 1.1% in Kakuma and Nairobi in 3.7% respectively. The low rates reflect the situation where the avenue to third-country resettlement, especially for Somali refugees, became more limited after the suspension of the US resettlement programmes during the Trump administration.

As discussed within the literature (Horst, 2008; Lindley, 2010; Carrier, 2017), resettlement to the Global North represents one of the most important aspirations for Somali refugees, and Nairobi is often viewed as a transit route to the industrialised North. Therefore, the closure of the resettlement programme under the Trump administration had significant negative impacts on refugees. According to Mohamed, a Somali refugee elder, due to suspension of resettlement, "Some refugees, especially youth, took onward movement and tried to cross Mediterranean through South Sudan and Ethiopia to Libya. This is illegal but [there is] no alternative since [the] formal legal route is closed down." These insights are similar to those found by Mallett et al. (2017). In their analysis of the relationship between resettlement programming and onward decision-making, they similarly showed that increased uncertainty relating to resettlement opportunities can make irregular secondary migration a more acceptable option.

We interviewed a few refugees who know those who migrated or attempted to migrate to the Global North from Nairobi through irregular channels. A Somali refugee named Abdiqani described the journey of his best friend and schoolmate, Abdisaq, a 23-year-old Somali:

> He was in Nairobi for long time. He was on resettlement track and he completed all the procedures. Just waiting for his flight to US but Trump came in and his case was suspended. He got stressed out as his dream died. In 2017, he left Nairobi and first went to Ethiopia. After that, I don't know which countries he passed but he reached Libya. Then he went to Italy and somehow he reached US. Now he lives in Canada. He used smugglers for this trip. It was not an official route. I am still in touch with him through

Facebook.

Abdiqani also told us about another Somali refugee who passed through Dubai, and then Brazil before reaching his final destination in the US. He also mentioned a few other Somali refugees who moved to Turkey with a student visa in hope to reach to other parts of Europe.

Access to resettlement for Congolese refugees is also limited. Tony, one of the representatives of Congolese refugee communities in Nairobi, described the journey of a 29-year old Congolese refugee, Prince, who moved to France.

Prince was a football teammate of Tony. He was on resettlement track but it was not moving well so he had been searching for different migration routes. In 2016, Prince also had some troubles with other Congolese refugees in Nairobi and he left Kenya. While Tony was not sure about the precise route of Prince's journey, he found out that Prince reached France around 2017.

6.1.2 Repatriation

The other observed pattern of international movement is moving back to refugees' country of origin. This type of movement is prominent in Kakuma, but rare in Nairobi. Figure 3, Panel A, shows that movements from Kakuma to South Sudan and Somalia are frequent. We do not see any movements to the Democratic Republic of the Congo (DRC), a country viewed by our Congolese participants of qualitative interviews as too unstable and unsafe to return.

The prominence of the movement from Kakuma to Somalia reflects the results of UNHCR's repatriation programme, which was in operation during our fieldwork in 2019. Although repatriation should take place when the security situation is stabilised in the homeland, during FGDs, Somali refugees informed us that those who decided to go back to Somalia had multiple pushing reasons, especially: 1) little hope of resettlement from Kakuma, 2) insecurity in the camp, and 3) lack of access to higher education.

Some Somali refugees have also returned to Somalia in order to take advantage of the cash benefit from UNHCR's repatriation programme. Each individual participating in the repatriation programme is entitled to receive USD 350 (USD 150 in Kakuma and USD 200 given upon arrival in Somalia). This is equivalent to approximately five times the median monthly wage in Kakuma, providing a strong incentive for refugees to take up repatriation. During our fieldwork in Kakuma camp in 2019, an expatriate scholar who was conducting research involving Somali refugees in Kakuma camp described:

> According to our study, yes, Somali refugees are returning via UNHCR's repatriation programme but once they go back, they move again and use the stipend as capital to restart their life, often in Uganda.

While UNHCR has not set up a repatriation programme for South Sudanese refugees, our qualitative research supports the survey data that a number of South Sudanese recently went back to their homeland without notifying UNHCR. For example, we interviewed Dok, a South-Sudanese refugee, in 2016 and 2019. In 2016, he was living with ten South Sudanese refugees who were not blood related. By 2019, all of these ten refugees returned to South Sudan and Dok was the only remaining one in Kakuma camp. Some left to visit family members and search for jobs in South Sudan, while others returned to South Sudan due to the poor living conditions in Kakuma, such as insufficient food rations, limited education, and few livelihood opportunities.

Our qualitative data also reveals that movements back to the country of origin may not always mean permanent repatriation. Our interviewees informed us of the frequent back and forth movements between Kakuma and South Sudan which are particularly prominent among younger refugees. Individuals migrate to seek avenues for betterment but both destinations are limited in opportunities. We had a long interview with Samson, a 23-year-old male refugee who came to Kakuma in 2002. He returned to South Sudan in 2010, 2015, and 2019 each time after he completed his education in Kakuma camp. He explained his most recent return to South Sudan in 2019:

> Between 2017 and 2018, I worked as an incentive worker in Kakuma but this did not give me enough to help my family. I have six younger siblings. I had to look for better jobs but there are no such jobs in Kakuma. So I went to South Sudan in 2019 April. I spent two months searching for job and higher education opportunity. I didn't see any success. I did apply for jobs at NGOs but no success...I searched for scholarship for pursuing higher education but did not get it. So I came back to Kakuma in 2019 August.

However, each time he came back to Kakuma camp, Samson found himself in despair due to limited access to meaningful opportunities. Samson expressed his frustration towards his life in Kakuma as follows:

> [life in the camp is] Tedious, no excitement. No prospect, no hope...I often discuss with my friends: "How can we move out of this camp?"

Family-split strategies - where some household members repatriate and others remain in exile – are also common amongst South Sudanese households. More than half (53%) of South Sudanese households have adopted similar strategies. For households in which at least a member stayed, 21% of the individuals moved for reasons related to jobs and business. For example, Gloria came to Kakuma with her husband and three children in 2016. Her husband went back to Juba, South Sudan in 2017 while Gloria and her children remained in the camp. He is now farming, as well as working in construction in Juba, and is sending money to them via MPesa. Gloria explained why she continues to live separately from her husband: "I want to stay in Kakuma for my children's education... In South Sudan, it is hard to access free education for children. We will keep a split life for some time."

6.1.3 Migration to the Global South

Although small in numbers, refugees also migrate to countries other than developed countries in the Global North or countries of origin (Figure 3). Our qualitative data

reveals that the access to rights to work and move in Uganda is widely recognised by refugees living in Kenya. This perception is especially prevalent among Somali refugees. Dek, a 22-year-old Somali refugee, who came to Kakuma in 2008, explained:

> In 2017, my uncle [who was living with us] went to Uganda to search for jobs. But soon he came back to Kakuma camp [for verification in Kakuma]...In 2019, he went back to Uganda again. We have relatives (also Somali refugees) in Uganda and they encouraged him to come and join them in Uganda. They have a grocery shop in Kampala. My uncle stays with them and helps their business there.

Similarly, Abdalaham described the situation of his flatmate, Jamal, a 19-year-old Somali refugee who went to Kampala from Nairobi in 2018:

> He [has] lived in Nairobi since 2015 but found his life here so difficult. He was living alone in Nairobi. I heard his family were killed [in Somalia] and he escaped alone. He struggled to pay rent. He suffered from police harassment. He was not working but instead relying on others...He had some relatives in Kampala so he joined them.
>
> I know many Somali refugees moved to Uganda for the last few years. Uganda provides better life and cheaper living costs. [in Uganda] We can place some of our family members in the camp and others can work outside. This is easier in Uganda than in Kenya due to freedom of movement.

For Congolese refugees in Nairobi, Uganda is not a popular destination due to its proximity to the DRC. Instead, a number of refugees went to Ethiopia. For example, Jaspar explained the situation of his close friend Mike, a 33-year-old Congolese refugee who moved to Ethiopia in 2018:

> He found his life in Nairobi very tough. He was making a small income by playing musical instruments at churches and also relying on other Congolese

> refugees for daily survival. He got the info that Ethiopia is easier to live than Nairobi...I am still in touch with Mike via Whatsapp. He says Addis is better than Nairobi. He is officially registered with UNHCR there...I was also interested in moving to Addis but I could not afford transportation costs.

Beyond the African continent, Turkey has emerged as another destination among Somali refugees in Nairobi. According to our interviewees, the trend of Somali refugees moving to Turkey has become intensified particularly after the suspension of resettlement to the US. According to these Somali refugee interviewees, it is relatively easy for Somali passport holders to get Turkish travel documents. For example, Asli described the relocation of her previous employee, Naslat:

> She moved to Turkey in August 2018. She said Eastleigh is too expensive to live. She has four children but she was not able to pay their education costs. She left her children with her sister [in Nairobi]...She said Turkey is a transit place. She is not planning to stay there for good. Her aim is to move to Europe through Turkey. One of her Somali friends took this route and entered Europe so she followed it.

6.2 Internal movements

Internal movements are frequent: annual internal migration rates were 6.1% in Kakuma camp and 24% in Nairobi during the study period (Table 1). Patterns of internal movement vary between Kakuma and Nairobi. Figure 4 shows the percentages of refugees who moved to another county within Kenya between the two survey waves. While the places of movements for refugees in Kakuma are largely limited to inside the camp or to a few cities, the destinations for refugees who were living in Nairobi at baseline are more widely distributed across the country. Mandera, which borders Somalia, as well as Mombasa, are the most-reported destinations.

The most common reasons behind the movements within Kenya from Kakuma are

education (29%), work opportunities (25%), and insecurity in the camp (14%). The reasons are slightly different for refugees from Nairobi, who reported moving because of high prices (63%) or to seek better living conditions (21%) and work opportunities (19%).

[Figure 4 about here]

6.2.1 Camp-city movements

Some refugees decided to move out of Kakuma camp and try their luck in Nairobi or, more rarely, smaller cities like Kitale, Nakuru, or Mombasa. This pattern of movement is mostly observed among Somali refugees. Although the numbers are modest, some refugees, especially the youth, moved to Nairobi in order to pursue livelihood opportunities and access education in the capital. Others went to Kitale, Nakuru, Eldoret, or Mombasa. These Somali refugees usually have access to wider co-ethnic networks in these cities.

Abdirahaman is one of those Somali refugees whose family members moved to Kitale. He came to Kakuma in 2011 but relocated his wife and two toddlers in Kitale in June 2019 for the following reasons:

> Life in the camp is bad. Very poor health facilities. My children have bronchitis and cannot tolerate dusty air. Security is not good. Attack, looting during night. This camp is risky for women and children so I moved them out of the camp.

The primary reasons why he chose Kitale included cheaper living cost compared to other major cities and his existing contact with other Somali refugee families in Kitale. During our data collection in 2019, we encountered a few other refugees whose

family members moved out of the camp to other cities or towns. Yet as the example of Abdirahaman indicates, their movement was not necessarily meant to be permanent. Instead, these Somali refugees have maintained their foothold in Kakuma as an "option".

Although less common, we also observe movements from Nairobi to refugee camps (annual rate of 1.8%). Refugees moving from cities to camps do so to avoid paying rent and to have access to free social services. For example, Ahmed described the situation of his housemate, Mohamed, a Somali refugee who moved from Nairobi to Kakuma camp in 2018:

> He [Mohamed] used to be living in the camp but he came to Nairobi in 2017 [to earn better income]. But his family was still there [in Kakuma camp]...He was unable to afford a living in Eastleigh. He was working at a shop as a shopkeeper but he was fired by the owner...After that, he was unable to pay his rent and other costs.

Urban-camp movements are limited amongst Congolese refugees. Banyamulege Congolese, comprising around 12,000 of Nairobi's 19,000 Congolese refugees, often stay away from refugee camps for security reasons. Often marginalised as "Congolese Tutsi", they have been having conflicts with other Congolese tribes. During FGDs, Congolese participants echoed this issue of insecurity:

> Inside the camp, we have to live with other ethnic groups which we had conflict like Bembe...But UNHCR does not care about these ethnic divisions. We are viewed as one group of Congolese refugees. We saw some attacks against us inside the camps —1997 Rwandan camps, 2004 Katumba camp in Burundi, 2008 Nakivale and Kyaka II camps in Uganda, and 2009 Kakuma camp.

6.2.2 Movements from Nairobi to secondary cities

Some refugees in Nairobi decided to relocate to other towns or cities within Kenya. The vast majority of Somali refugees in Nairobi are concentrated in Eastleigh, a district of Nairobi, known as "Little Mogadishu" (Carrier, 2017). The presence of a large Somali Kenyan population offers Somali refugees an opportunity for partial assimilation within Eastleigh. However, some Somali refugees in Nairobi had to move out of their "comfort zone" due to a range of challenges. Hajimsi explained the situation of his colleague, Hassan, a Somali refugee who moved from Eastleigh in late 2017 to Donholm, a suburb town inside Nairobi:

> He [Hasssan] said living expenses in Eastleigh are too high, especially rent. He had some of his relatives living there [in Donholm]. It [Donholm] has a Somali community though it is not big one like Eastleigh. I think about 100 Somali households are living there. I know some other Somali families who moved to Donholm.

Other Somali refugees decided to leave Nairobi for other cities such as Mombasa, Garissa, or Nakuru. According to Somali refugee interviewees, these places have existing Somali communities, and those who moved there have existing family ties. For example, Mohamed described the situation of some Somali refugees who moved out of Eastleigh and relocated to Mombasa:

> They were all struggling to pay increased rent and living costs in Eastleigh and searched for cheaper places where Somali people are living. What I heard is one bedroom in Eastleigh can be KES 18,000-25,000 but in Mombasa the same type of room is KES 7,000-8,000.[16]

Some Congolese refugees also had to move outside Nairobi. With generally less networks across the country than Somali refugees, Congolese refugees tend to choose

[16]Using official exchange rate in 2019, KES 18,000-25,000 was approximately USD 176-245 and KES 7,000-8,000 was approximately USD 69-78.

destinations depending on employment opportunities. Serge explained the movement of his friend Jean-Paul, a 34-year-old Congolese refugee, who moved out of Nairobi for Mombasa in 2018:

> He [Jean-Paul] was struggling to make money in Nairobi. He was working as a porter for Kenyans. He was a driver in DRC but he could not get the same job in Nairobi ...but he found a job in Mombasa through his Kenyan friend. He is now working as a taxi driver. I still contact him via Whatsapp and phone. He is saying life in Mombasa is better and cheaper than Nairobi.

6.2.3 Local movements within Nairobi

Our panel data highlights the importance of intra-urban movement, which is the most common type of movement in our refugee sample in Nairobi. 22% of our respondents report that rent increase or demolition/renovation of residential buildings as the reasons for moving. Indeed, using rental data in our panel survey, we find that rent per bedroom has significantly increased for both Somali and Congolese refugee households, with Somali refugees experiencing a larger increase (Table A.15 in Appendix). In 2019, the median rent per bedroom for refugee respondents was KES 5,500 ($\approx$ USD 54), which is 69% of the median wage amongst refugees in Nairobi.

Our qualitative data also aligns with this pattern. Somali refugee community leaders explained: "Many Somali refugees are changing their residence within Eastleigh due to increased renovation and reconstruction. This trend has intensified since 2017...Many diaspora including resettled refugees are investing money in Eastleigh".

Some refugees were forced to relocate a few times in Eastleigh within a short period. Ishmaham, a Somali single mother with two children, is making a living by hawking cooked food in Eastleigh:

> In 2017, I moved [within Eastleigh] due to rent increase from KES 8,000 to KES 16,000. The landlord is non-Somali Kenyan. He did not explain about

> this rent increase. I moved to other place and the rent was then KES 10,000. But in 2018 again the rent was increased to KES 16,000 and now it is KES 20,000. I am still staying in that place. But we will soon have to find another place...Now it is getting very hard to find a cheaper place inside Eastleigh.[17]

Despite the increasing costs of living in Eastleigh, in general, Somali refugees are reluctant to leave. Crucially, a considerable number of refugees' economic activities are embedded within Eastleigh. For instance, Muna, a female Somali divorcee with eight children whom we interviewed in 2017, has been making a living by hawking clothing in Eastleigh. In our follow-up interview in 2019, she was still vending clothing in Eastleigh. She explained that she hawks only in Eastleigh since all of her regular customers are limited to Somali people due to her limited command of Kiswahili and English.

Ishmael, one of the Somali refugee community leaders who is also living in Eastleigh, described the meaning of this place for Somali refugees:

> For Somali refugees, Eastleigh provides commonality in culture and language. This is also a place for livelihoods as it is a commercial hub. It also provides security and protection for us. It is also a religious place. Outside Eastleigh, Somali people will stand out [as their features are distinct].

Contrary to Somali refugees, who largely concentrate within one neighbourhood of Nairobi, Congolese refugees are dispersed across several areas in Nairobi such as Kasarani, Githurai, Umoja, and Kayole. Congolese refugees frequently move within and between these neighbourhoods. Mtwari is a Congolese refugee who has been living in Nairobi with his family since 2014. He explained:

> Between 2014 and 2017, we first lived in Kayole with a Congolese refugee

[17]Using official exchange rate in 2017, KES 8,000 was approximately USD 77, KES 16,000 was approximately USD 155, and KES 10,000 was approximately USD 97. Using official exchange rate in 2018, KES 16,000 was approximately USD 158. Using official exchange rate in 2019, KES 20,000 was approximately USD 196.

> family who is related to my wife. But in 2016 this family got resettled. Then, we moved to Kasarani. I had another relative living there. We were hosted by him. Later, [inside Kasarani] we rented our own room. This year [2019], we moved to Kayole due to too high rent. KES 5,000 for one bedroom ... Kayole is cheaper than Kasarani. Now I pay KES 4,000 for a single room for me, [my] wife and four children. Food is also cheaper here.[18]

In response to increasing rents and living expenses, some Congolese refugees chose to live with other Congolese refugees. For instance, Sandrine is a widowed Congolese refugee who has been in Nairobi since 2017 with three children. Her household moved three times in Kasarani because she was unable to pay rent. She started living with another refugee with whom she was unrelated but was sharing all living costs.

Congolese refugees also expressed their strong desire to stay in neighbourhoods where many Congolese reside. In one FGD, we had a Congolese participant who changed residency in these areas several times over the last few years. When we asked him whether he would consider moving out of these areas and relocating to cheaper areas, he responded: "We will lose support networks [from Congolese communities]. Here we have togetherness. In case of any trouble, we can get help from other Congolese refugees."

As shown above, both Somali and Congolese refugees had to change their residency in Nairobi due to similar challenges of inflation especially rent. Both groups have shown similar movement patterns that prioritise their existing communal protection bonds with fellow refugees.

[18]Using official exchange rate in 2019, KES 5,000 was approximately USD 49 and KES 4,000 was approximately USD 39.

7 Conclusion

Secondary movements feature prominently in public debate on asylum in rich countries. Politicians regularly highlight the onward movement of refugees from "first countries of asylum" to Europe and North America. In doing so, they frequently make several assumptions about refugee mobility: 1) that most refugee secondary movement is South-North, 2) that it is predominantly undertaken via irregular channels, 3) that the aspiration to move translates into actual movement, and 4) that refugees who remain in regions of origin are largely sedentary.

Yet, there has been strikingly little research on refugee mobilities in the Global South, or their implications for secondary movement. Our article provides a starting point for understanding these movements, by describing patterns of refugee mobility for one region, based on a combination of quantitative and qualitative data.

The article's key methodological innovation has been to collect data in the South *prior* to secondary migration, and then follow the same refugees over time. This contrasts with most academic research on refugee migration, which examines asylum decision-making *after* arrival in final destination countries. The research reveals the complexity of refugee mobilities in the South, and offers four main challenges to dominant policy assumptions relating to secondary movements.

First, on South-North movement, *onward migration* from poor to rich countries is a strikingly small part of refugee mobility. Refugees in Kenya are highly mobile. We estimate that 23% of camp refugees and 37% of urban refugees change their primary residency in a given year. However, most of these movements are internal movements, and the majority of international movements are to neighbouring countries (e.g. repatriation to the country of origin or Uganda). Secondary movements to rich countries appear to be a small part of refugee mobility. For example, only 1.2% of camp refugees and 4.9% of urban refugees move, regularly or irregularly, to rich countries each year. The implication is that we need to recognise that secondary movement is predominantly

South-South migration.

Second, on *irregularity*, of the tiny minority of refugees who engage in South-North movement, most appear to move via "regular" movements to third countries (e.g. UNHCR resettlement or education visas). Contrary to policy narratives in Europe and North America, irregular migration - such as via smuggling networks – appears to be a far less common means for refugees in Kenya to reach rich countries than regular migration channels. For example, while 14% of Kakuma camp refugees move internationally each year, only 1.1% travel to Europe, North America or Australia.[19]

Third, on *aspirations* versus *actual movements*, our analysis highlights that while many refugees may aspire to move to rich countries, few actually do. There are significant differences between "hope", "expectation", and "action" when it comes to refugees' migration and mobility preferences. While a large majority hope to migrate internationally, and a smaller majority expect to migrate internationally, actual international migration by refugees in first countries of asylum is relatively small. For example, 62% of the refugees in Kakuma "expect" to migrate internationally, but only 14% actually do. The implication is that policy-makers in the North may be too preoccupied with migration aspirations data, which may not be a good indicator of the ability to actually migrate (e.g. Carling and Schewel 2018).

Fourth, on the *sedentary left behind*, refugees who remain in the first country of asylum do not simply remain indefinitely within the same camp or city. Internal migration within the country of first asylum is a significant part of refugee mobility. This includes camp-urban movement and inter-urban movement, as well as intra-urban movement. Especially in Nairobi, their movements are sometimes driven by real estate dynamics such as renovation, demolition, and rent increases (Landau and Freemantle, 2016). Most refugees prefer to relocate in areas where their co-ethnic or co-national members reside to maintain their networks. In addition, refugees both in Kakuma and Nairobi

[19]Our data does not distinguish clearly between "regular" and "irregular" migration. However, based on qualitative research, we can assume that migration to North America and Australia is mainly regular and via resettlement or complementary visa pathways, and that migration to Europe is based on mixture of irregular and regular routes

have moved for a range of socio-economic reasons including better access to livelihoods, educational opportunities and social services within Kenya. There are also very high levels of "daily circulation" within and between cities and camps. These findings challenge what has been described as the "sedentarist bias" within refugee policy (Bakewell, 2008).

Overall, our research empirically demonstrates the complexity and diversity of patterns of refugee movement. Refugee mobility is not just about irregular movement from South-to-North. Furthermore, our qualitative findings challenge the dominant "categories" used to disaggregate different forms of refugee migration. For example, "repatriation" is not always permanent return to refugees' homeland (Bakewell 2002; Carling and Schewel 2018) – it can involve taking advantage of international incentives to return and then moving elsewhere, or simply moving back and forth between exile and the country of origin to assess the possibilities for accessing socio-economic opportunities.

Collectively, these findings challenge the dominant belief that refugee mobility is reducible to irregular secondary movements from poor to rich countries, encouraging a renewed focus on comparative research on refugee mobilities. A future research agenda for refugee mobilities should look across regions, and in greater detail, at understudied patterns of movement such as intra-camp, intra-urban, inter-urban, camp-urban, and intra-regional migration. It might also consider themes of "daily" or regular movements whether for work, family, or education. It should consider these not only at an individual level, but also at a household level, given what our research reveals about "split family strategies". Moving beyond describing patterns, further research is also needed to further explore the relationship between refugee migration and development, to explore whether, and to what extent the "migration-hump" relationship applies to refugees. Perhaps most importantly, comparative research on refugee mobilities should continue to engage critically with the policy labels - such as "secondary movement" – that dominate public understanding of refugee migration.

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Figures and Tables

Figure 1: Three phases of mobility-related decision-making

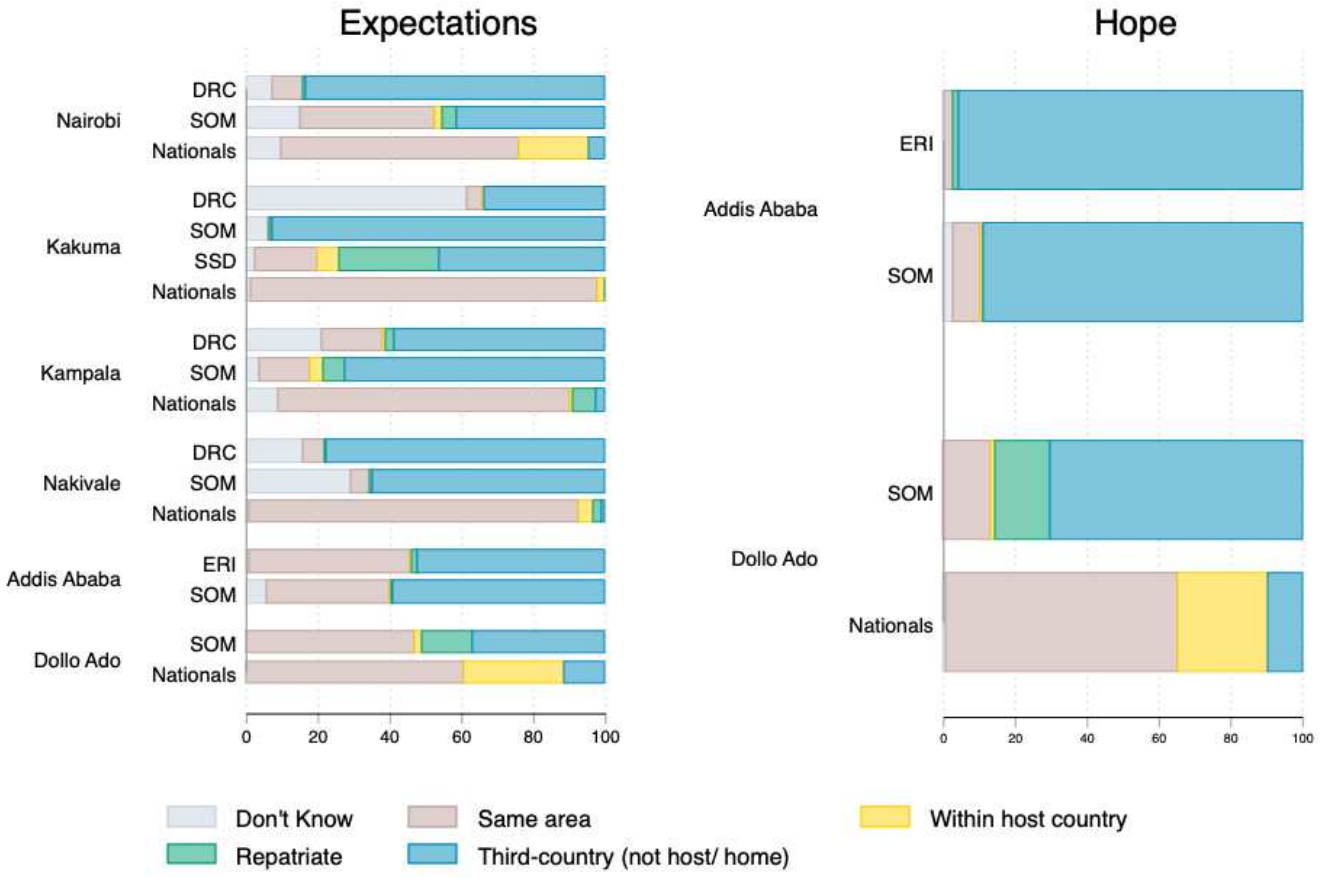

Figure 2: Migration expectations and hope in Kenya, Uganda, and Ethiopia

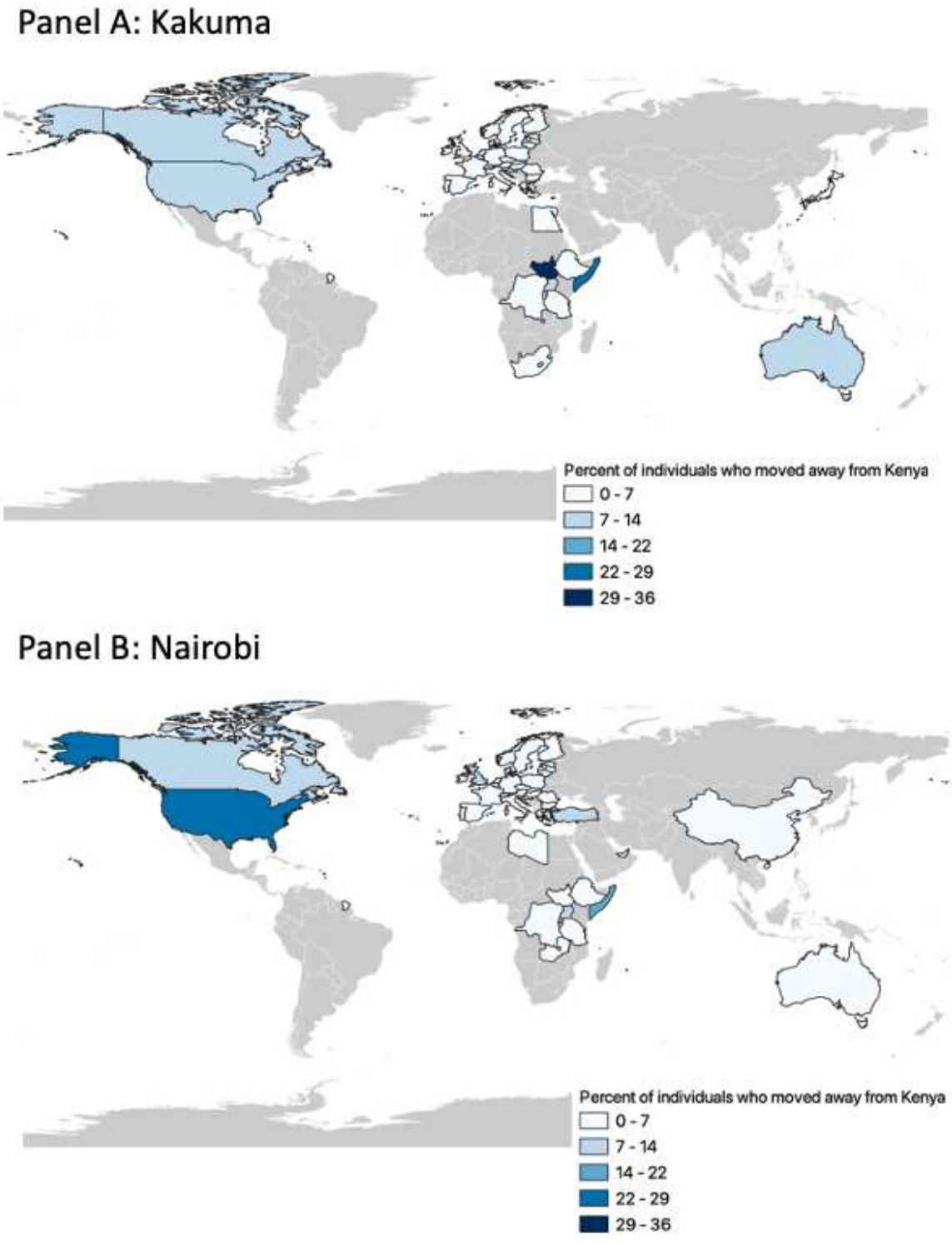

Figure 3: Destinations of international movements

Notes: Percentages for countries in the European Economic Area (EEA) are the total of this group of countries as our data does not allow for further disaggregation.

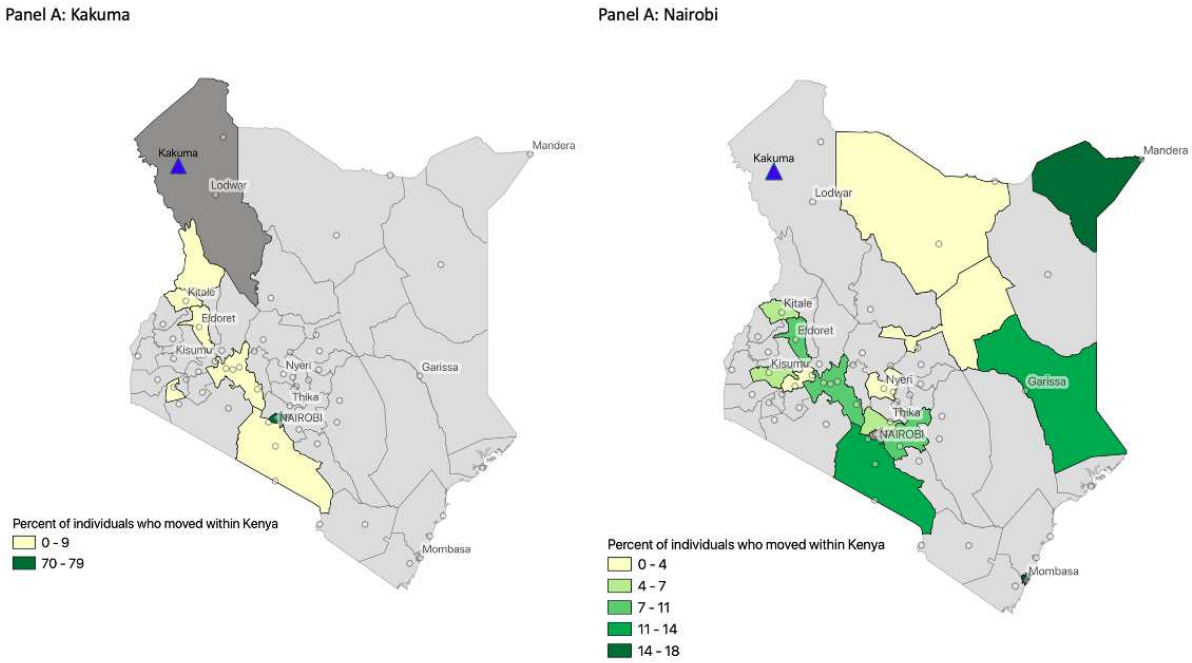

Figure 4: Destinations of internal movements

Table 1: Refugee movement rates in Kakuma and Nairobi

	Kakuma	Nairobi	Kakuma	Nairobi
	Wave 1 to Wave 2		Annual	
Total	*54.3%* (*0.066*)	*60.4%* (*0.036*)	*23.0%*	*37.1%*
International	*37.3%* (*0.063*)	*18.3%* (*0.030*)	*14.4%*	*9.6%*
Resettlement (Canada, USA and Australia)	3.2% (0.011)	7.2% (0.023)	1.1%	3.7%
Europe (including the UK, excluding Turkey)	0.1% (0.001)	2.3% (0.015)	0.0%	1.2%
Repatriation (matched with nationality)	27.5% (0.053)	5.2% (0.022)	10.1%	2.6%
Other African countries	6.3% (0.015)	2.1% (0.006)	2.2%	1.1%
Other countries	0.0% (0.0004)	1.4% (0.008)	0.0%	0.7%
Internal	*17.1%* (*0.024*)	*42.2%* (*0.027*)	*6.1%*	*24.0%*
Camp-city movements	6.9% (0.016)	3.5% (0.010)	2.4%	1.8%
From Nairobi to secondary cities		15.8% (0.028)		8.2%
Local movements (within Nairobi/Kakuma)	9.5% (0.019)	22.9% (0.018)	3.2%	12.2%

Notes: Columns 1 and 2 show the estimated proportions of refugees who have moved to various locations since Wave 1 data collection. Standard errors in parenthesis, and estimates adjusted using survey weights. Columns 3 and 4 are computed average movement rate per year (r): $r = 1 - \left(\frac{100 - r^{raw}}{100}\right)^{1/years}$ where r^{raw} is the percentage of individuals in Wave 1 who were found to have left in Wave 2, and years is the number of years between the two waves, i.e. two for Nairobi and three for Kakuma.

Online Appendix

A Additional statistics

Table A.1: Migration expectations in Kenya, Uganda, and Ethiopia, in percentages of individuals by nationality

	Don't know	Same area	Within host country	Repatriate	Third-country (not host/ home)
			Nairobi		
DRC	7.2	8.7	0.0	0.5	83.5
SOM	15.1	37.3	2.1	4.0	41.4
Nationals	9.6	66.5	19.4	0.0	4.6
			Kakuma		
DRC	61.5	4.3	0.2	0.0	33.9
SOM	6.0	0.6	0.0	0.8	92.7
SSD	2.4	17.3	6.4	27.6	46.3
Nationals	1.1	96.8	2.0	0.1	0.0
			Kampala		
DRC	21.0	16.8	1.0	2.5	58.6
SOM	3.7	14.3	3.3	6.1	72.6
Nationals	8.9	81.1	0.9	6.3	2.8
			Nakivale		
DRC	15.7	6.1	0.1	0.2	77.9
SOM	29.3	5.2	0.0	0.6	64.8
Nationals	0.9	91.7	3.9	2.4	1.1
			Addis Ababa		
ERI	0.9	45.0	0.2	1.7	52.1
SOM	5.8	34.1	0.5	0.5	59.1
			Dollo Ado		
SOM	0.0	47.1	2.0	14.0	37.0
Nationals	0.2	60.5	27.8	0.0	11.4

B Sampling

Table A.2: Sample size in each survey location

Location	Refugees	Host	Data on migration moments
Kenya			*Expectation and action*
Kakuma refugee camp	1,360	604	
Nairobi	1,231	1,159	
Uganda			*Expectation*
Nakivale refugee camp	1,628	662	
Kampala	933	953	
Ethiopia			*Expectation and hope*
Dollo Ado (5 refugee camps)	2,711	2,929	
Addis Ababa	1,107	1,331	

Table A.3: Households and individuals tracked and interviewed

	Nairobi		Kakuma	
	Refugee	**Kenyans**	**Refugee**	**Kenyans**
	Households			
Interviewed or deceased (%)	37.06	41.9	37.5	37.58
Attrition, with known location (%)	50.88	36.87	58.33	61.15
Cannot locate household (%)	12.06	21.23	4.17	1.27
Number of households	*456*	*537*	*480*	*157*
	Individuals			
Interviewed (%)	55.32	47.20	54.71	66.89
Attrition, with known location (%)	32.49	29.85	41.40	29.14
Cannot locate individuals (%)	12.19	22.95	3.90	3.97
Number of individuals	*1,231*	*1,159*	*1,360*	*604*

Table A.4: Refugee Sampling Strategies

Sub-population	Sampling strategy	Refugee sub-population (UNHCR data)	Sample size Individuals (HHs)
Kenya Kakuma (November-December 2016)			**1,362 (480)**
Somali refugees	Household sampling: We used two-stage cluster sampling using UNHCR registration data. We first randomly selected 20 blocks in the camp (sampling proportional to size with replacement). Following a mapping exercise of each selected block, we randomly selected eight households on each map. Within-household sampling: In households with less than five adults, all adults were interviewed. When the number of adults was higher than five, we interviewed the household head as well as four other adults randomly selected.	40,074 individuals (26% of camp)	456 (160)
South-Sudanese refugees	Household sampling: Similar to the sampling strategy used for Somali refugees in Kakuma. Within-household sampling: Same procedure as for Somali refugees in Kakuma.	82,339 individuals (54% of camp)	463 (160)
Congolese refugees	Household sampling: Similar to the sampling strategy used for Somali refugees in Kakuma. Within-household sampling: Same procedure as for Somali refugees in Kakuma.	9,171 individuals (6% of camp)	443 (160)
Kenya Nairobi (May 2017)			**1,257 (450)**
Somali refugees	Household sampling: We used two-stage cluster sampling using the sampling frame of the 2009 census organized by the Kenyan National Bureau of Statistics (KNBS). First, we used simple random sampling with replacement to select 40 Enumeration Areas (EAs) in Eastleigh. However, 21 EAs were deemed too insecure and dropped from the sampling frame. Following a mapping exercise of each selected EA, we randomly selected a given number households on each map. Within-household sampling: Same procedure as for Somali refugees in Kakuma.	27,714 individuals (46% of Nairobi refugees)	556 (246)
Congolese refugees	Household sampling: We worked with community leaders of the Banyamulenge and Banyamasisi ethnic groups to established lists of household heads in Kasarani, Githurai, Umoja and Kayole. We focused on the two most important Congolese ethnic groups living in Nairobi: the Banyamulenge and the Banyamasisi. From the seven lists we obtained, we used stratified simple random sampling to selected about 8% of households. Within-household sampling: Same procedure as for Somali refugees in Kakuma.	16,138 individuals (27% of Nairobi refugees)	701 (204)

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Sub-population	Sampling strategy	Refugee sub-population (UNHCR data)	Sample size Individuals (HHs)
Uganda Nakivale (April 2018)			**1,624 (585)**
Somali refugees	Household sampling: Using data from the 2014 census provided by the Ugandan Bureau of Statistics, we identified the 4 EAs in at least 30 Somali household live in Nakivale. We mapped these areas and used simple random sampling to select households. Within-household sampling: Within each household, interviews were conducted with up to four adults. The household head and the main food preparer were interviewed in each household; if the number of remaining adult household members exceeded two, the remainder were chosen by random draw.	16,559 individuals (16% of settlement)	822 (290)
Congolese refugees	Household sampling: We used two-stage cluster sampling, using data from the 2014 census provided by the Ugandan Bureau of Statistics. In the first stage, we randomly selected 30 enumeration areas in Nakivale sub-county using random sampling proportional to the size of the refugee populations of interest (with replacement). We then used satellite images map the selected areas and identify all households. A fixed number of households was then randomly selected in each enumeration area. Households were visited and interviewed if they were of the target nationality. Otherwise a replacement households was selected and visited. Within-household sampling: Same procedure as for Somali refugees in Nakivale.	44,978 individuals (44% of settlement)	802 (295)
Uganda Kampala (April 2018)			**932 (380)**
Somali refugees	Household sampling: We used two-stage cluster sampling, using data from the 2014 census provided by the Ugandan Bureau of Statistics. In the first stage, we randomly selected 30 enumeration areas in Kampala district using random sampling proportional to the size of the refugee populations of interest (with replacement). We then used satellite images and community mobilisers to map the selected areas and identify all households. A fixed number of households was then randomly selected in each enumeration area. Within-household sampling: Same procedure as for Somali refugees in Nakivale.	20,545 individuals (20% of Kampala refugees)	459 (206)
Congolese refugees	Household sampling: Similar to the sampling strategy used for Somali refugees in Kampala. Within-household sampling: Same procedure as for Somali refugees in Nakivale.	40,986 individuals (40% of Kampala refugees)	473 (174)

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Sub-population	Sampling strategy	Refugee sub-population (UNHCR data)	Sample size Individuals (HHs)
Ethiopia Dollo Ado (November-December 2018)			**2,711 (1,152)**
Somali refugees	Household sampling: We worked in the five refugee camps spanning between Dollo Ado town and Bogol in Ethiopia (Buramino, Hilaweyn, Kobe, Melkadida, and Bokolmanyo). We used the sampling frame of UNHCR's Standardised Expanded Nutrition Survey (SENS). UNHCR provided an anonymized list of the addresses of all households in the different camps. Households were randomly selected from this list using stratified simple random sampling. Within-household sampling: In each selected household, we interviewed a maximum of three adults. The household head and the main food preparer were interviewed in each household; if the number of remaining adult household members exceeded one, the remainder were chosen by random draw.	218,982 individuals (100% of refugees)	2,711 (1,152)
Ethiopia Addis Ababa (September-October 2018)			**1,110 (626)**
Somali refugees	Household sampling: We focused on Somali refugees living in Bole Michael. Due to the limited size of the registered population of Somali refugees in Addis Ababa, we surveyed all Somali adults living in Bole 1 and 2. The population was mobilized in two steps. First, all refugees in UNHCR/ARRA database were contacted by a group of community mobilizers and asked to come to a local NGO for an interview. Many refugees could not be reached via the given phone numbers. After the list was exhausted, community mobilizers were sent to mobilize Somali refugees beyond the lists. Within-household sampling: All adults were interviewed.	Census	417 (191)
Eritrean refugees	Household sampling: Focusing on the high refugee concentration areas of Nifasilk Lafto 1 (Jemmo), 2, 5 (Gofa Mebrat Haile), 6, 9, 12 and Bole 5 (Magenagna/Haya Hulet), 10 (Gerji), we drew a simple random sample of all registered urban refugees from the UNHCR/ ARRA database. A large part of the refugees on the list had moved into different areas in Addis Ababa, could not be reached via their contact details, or had left the city or refused to participate. Refugees who had moved within Addis Ababa were interviewed even if they were living outside the high refugee concentration areas. Within-household sampling: Same procedure as for Somali refugees in Dollo ado camps.	8,491 (73% of Addis refugees)	693 (435)
Total Refugees			**8,996 (3,673)**

C Exploratory regression analysis

C.1 Variables

Table A.5: Definition of Co-variates

Variable	Definition
Living standard index	Aggregated responses on individual income (USD), dietary diversity, subjective well-being, ownership of assets at individual level, household income per capita in dollar (USD) windsorised at 99th percentile, and household ownership of assets using the procedure proposed by Anderson (2008).
Living standard indexˆ2	Square of the variable *Living standard index*
Age	Age of the respondent
Age sq	Square of the variable *Age*
Female	Equals one if respondent is a female, and zero otherwise.
Married	Equals one if respondent is married, and zero otherwise.
Education yrs	Years of formal education completed
Vocation d	Equals one if respondent has taken part in vocational education and zero otherwise.
English	Equals one if respondent's command of English is "well" or "very well", and zero otherwise.

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Variable	Definition
Local lang	Equals one if respondent's command of local language (e.g. Kiswahili) is "well" or "very well", and zero otherwise.
Remittance d	Equals one if respondent has received remittances, and zero otherwise.
Family in HIC	Equals one if respondent has friends and family members in high income countries, and zero otherwise.
Has loan	Equals one if respondent has a loan, and zero otherwise.
Has savings	Equals one if respondent has savings, and zero otherwise.
Mental health	9-item Patient Health Questionnaire (PHQ-9), with maximum score of 27. Scores 0-4 indicate no depression, 5-9 indicate mild depression, 10-14 indicate moderate depression, 15-19 indicate moderately severe depression, and 20 or above indicate severe depression.
Physical health	12-item World Health Organisation Disability Assessment Schedule 2.0 (WHODAS 2.0)
Trust in host	"Agree" or "Strongly agree" that the host community are trustworthy

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Variable	Definition
Dependency ratio	Number of household members who are aged 14 or less, or 65 or more, divided by household members who are aged 15-64.
Urban HH before	Equals one if respondent lived in an urban area before fleeing, and zero otherwise.
Female-headed HH	Equals one if respondent lived in a female-headed household, and zero otherwise.

Table A.6: Summary statistics of control variables used in migration expectation analysis

Variable	Obs	Mean	Std. Dev.	Min	Max	P50
Migrate intention	8966	.74	.439	0	1	1
Migrate intention (Internal)	8966	.011	.106	0	1	0
Migrate intention (International)	8966	.625	.484	0	1	1
Age	8970	31.112	11.564	18	82	28
Age sq	8970	1101.646	864.795	324	6724	784
Female	8970	.53	.499	0	1	1
Married	8970	.483	.5	0	1	0
Education yrs	8653	5.626	5.247	0	20	6
Vocational d	8970	.179	.384	0	1	0
English	8970	.756	.884	0	3	0
Local lang	6258	1.123	1.025	0	3	1
Remittance d	8941	.272	.445	0	1	0
Family in HIC	8970	.161	.368	0	1	0
Has loan	8970	.085	.279	0	1	0
Has savings	8970	.126	.332	0	1	0
Mental health	8797	6.209	5.741	0	27	5
Physical health	8907	4.77	4.721	0	24	4
Trust in host	8725	2.545	1.001	1	4	3
Dependency ratio	8939	1.246	1.212	0	13	1
Urban HH before	8949	.482	.5	0	1	0
Female-headed HH	8964	.399	.49	0	1	0
Living standards index	8647	0	1	-1.501	7.678	-.198
Living standards index sq	8647	1	2.721	0	58.959	.367

Table A.7: Summary statistics of variables used in movement analysis in Kenya

Variable	Obs	Mean	Std. Dev.	Min	Max	P50
Migrated d	2386	.347	.476	0	1	0
Migrated (Internal)	2386	.123	.329	0	1	0
Migrated (International)	2386	.224	.417	0	1	0
Age	2591	29.132	10.306	18	80	26
Age sq	2591	954.845	752.003	324	6400	676
Female	2591	.512	.5	0	1	1
Married	2591	.422	.494	0	1	0
Education yrs	2572	8.01	4.927	0	17	8
Vocation d	2591	.248	.432	0	1	0
English	2591	1.13	.928	0	3	1
Local lang	2591	1.685	.878	0	3	2
Remittance d	2562	.297	.457	0	1	0
Family in HIC	2591	.122	.327	0	1	0
Has loan	2591	.037	.189	0	1	0
Has savings	2591	.301	.459	0	1	0
Mental health	2518	6.817	5.717	0	27	6
Physical health	2572	5.306	4.86	0	24	4
Trust in host	2561	2.076	.979	1	4	2
Dependency ratio	2588	1.189	1.242	0	13	1
Urban HH before	2590	.276	.447	0	1	0
Female-headed HH	2312	.413	.493	0	1	0
Living standards index	2303	0	1	-1.958	5.485	-.165
Living standards index sq	2303	1	2.046	0	30.083	.369
Kakuma	2591	.525	.499	0	1	1
DRC	2591	.439	.496	0	1	0
Kenyan	2591	0	0	0	0	0
Somali	2591	.381	.486	0	1	0
S.Sudan	2591	.178	.383	0	1	0

C.2 Regression results: migration expectations and hope

Table A.8: Factors influencing migration expectations

	Expect to migrate		Internal		International	
	(1)	(2)	(3)	(4)	(5)	(6)
Living standards index	-0.00518	-0.0103	-0.00987**	-0.0106**	0.000138	-0.00532
	(0.00756)	(0.0122)	(0.00415)	(0.00514)	(0.00663)	(0.00975)
Living standards index sq		0.00232		0.000335		0.00245
		(0.00302)		(0.000737)		(0.00292)
Age	-0.000326	-0.000279	0.00303	0.00304	-0.00189	-0.00184
	(0.00259)	(0.00261)	(0.00310)	(0.00310)	(0.00381)	(0.00380)
Age sq	0.0000137	0.0000131	-0.0000362	-0.0000363	0.0000179	0.0000172
	(0.0000307)	(0.0000309)	(0.0000351)	(0.0000351)	(0.0000488)	(0.0000485)
Female	0.00739	0.00713	-0.00355	-0.00358	0.0143	0.0140
	(0.00815)	(0.00813)	(0.00474)	(0.00476)	(0.0112)	(0.0112)
Married	-0.00325	-0.00330	-0.0124	-0.0124	0.0212	0.0211
	(0.00999)	(0.0100)	(0.0120)	(0.0120)	(0.0160)	(0.0160)
Education yrs	0.00119	0.00121	-0.000209	-0.000205	0.00133	0.00136
	(0.00158)	(0.00159)	(0.000837)	(0.000835)	(0.00151)	(0.00152)
Vocational d	0.0373**	0.0370**	0.0314	0.0313	-0.0417*	-0.0420*
	(0.0189)	(0.0186)	(0.0212)	(0.0212)	(0.0233)	(0.0234)
Local lang	0.0136	0.0136	0.00371	0.00371	0.0108	0.0109
	(0.0117)	(0.0117)	(0.00311)	(0.00311)	(0.0118)	(0.0118)
English	0.0240**	0.0237**	0.00556**	0.00553**	0.0298***	0.0295***
	(0.00952)	(0.00929)	(0.00269)	(0.00266)	(0.00960)	(0.00947)
Remittance d	0.0450**	0.0451**	0.0237	0.0237	0.0100	0.0101
	(0.0203)	(0.0204)	(0.0149)	(0.0149)	(0.0170)	(0.0170)
Family in HIC	0.0314*	0.0316*	-0.00853	-0.00851	0.0715***	0.0717***
	(0.0177)	(0.0176)	(0.0102)	(0.0102)	(0.0202)	(0.0201)
Has loan	0.0193	0.0188	0.00454	0.00447	-0.0172	-0.0177
	(0.0220)	(0.0221)	(0.00798)	(0.00792)	(0.0287)	(0.0286)
Has savings	0.0116	0.0124	-0.0108	-0.0107	0.0510**	0.0518**
	(0.0195)	(0.0193)	(0.0139)	(0.0139)	(0.0226)	(0.0229)
Physical health	0.00119	0.00120	-0.00123	-0.00123	-0.000452	-0.000444
	(0.00172)	(0.00171)	(0.00174)	(0.00174)	(0.00218)	(0.00218)
Mental health	0.00140	0.00132	0.00106	0.00105	0.00102	0.000943
	(0.00142)	(0.00141)	(0.00127)	(0.00127)	(0.00179)	(0.00182)
Trust in host	-0.00173	-0.00162	0.00344	0.00345	0.00363	0.00374
	(0.0105)	(0.0105)	(0.00432)	(0.00432)	(0.0182)	(0.0183)
Dependency ratio	0.00230	0.00233	-0.000863	-0.000859	-0.000510	-0.000477
	(0.00478)	(0.00476)	(0.00321)	(0.00321)	(0.00552)	(0.00550)
Urban HH before	-0.0245	-0.0237	0.0101	0.0103	-0.00415	-0.00330
	(0.0316)	(0.0308)	(0.00699)	(0.00702)	(0.0302)	(0.0296)
Female-headed HH	0.0151	0.0151	-0.00657	-0.00658	0.0269*	0.0268*
	(0.0133)	(0.0133)	(0.00569)	(0.00569)	(0.0159)	(0.0159)
N	8669	8669	8669	8669	8669	8669
R-squared	0.507	0.508	0.153	0.153	0.499	0.499

Notes: OLS estimates using data pooled across all samples. Co-variates are listed on the left. All co-variates variables are listed and described in Appendix Table A.5. The dependent variable in the first two columns is a dummy variable *Expect to migrate*, which is valued as one if a person expected to migrate in the next three years, and zero otherwise. The dependent variable in columns 3 and 4 is a dummy variable *Internal*, which is valued as one if a person expected to migrate internally, and zero otherwise. The dependent variable in columns 5 and 6 is a dummy variable *International*, which is valued as one if a person expected to migrate internationally, and zero otherwise. All regressions include year of fleeing, year of arrival, nationality, enumerator, survey site, enumeration area clusters, and region of birth in country of origin fixed effects. Missing values are dummied out. Clustered standard errors by enumeration area in parentheses. Adjusted using survey weights. * p<0.1, ** p<0.05, *** p<0.01

Table A.9: Factors influencing expectations to migrate internally, by location

	Ethiopia				Kenya				Uganda			
	(1) Addis	(2) Addis	(3) Melkadida	(4) Melkadida	(5) Nairobi	(6) Nairobi	(7) Kakuma	(8) Kakuma	(9) Kampala	(10) Kampala	(11) Nakivale	(12) Nakivale
Living standards index	0.0143	0.0162	0.00833	0.00890*	-0.00323	-0.00698	-0.0254**	-0.0338**	-0.0125	-0.0195	-0.00237	-0.00257
	(0.0119)	(0.0133)	(0.00523)	(0.00526)	(0.00217)	(0.00564)	(0.0110)	(0.0131)	(0.0101)	(0.0150)	(0.00230)	(0.00245)
Living standards index sq		-0.00666		-0.00865***		0.000928		0.00352*		0.00301		0.000128
		(0.00551)		(0.00283)		(0.000912)		(0.00193)		(0.00253)		(0.000141)
Age	0.00150	0.00148	0.000836	0.000865	-0.000568	-0.000503	0.0126	0.0126	-0.00283	-0.00273	-0.0000221	-0.0000157
	(0.00114)	(0.00113)	(0.00140)	(0.00140)	(0.00247)	(0.00240)	(0.00993)	(0.00993)	(0.00211)	(0.00215)	(0.000153)	(0.000151)
Age sq	-0.0000205	-0.0000206	-0.0000116	-0.0000120	0.00000364	0.00000277	-0.000143	-0.000144	0.0000179	0.0000168	0.00000260	0.00000251
	(0.0000155)	(0.0000156)	(0.0000174)	(0.0000173)	(0.0000318)	(0.0000309)	(0.000121)	(0.000121)	(0.0000243)	(0.0000249)	(0.00000345)	(0.00000341)
Female	-0.00458	-0.00517	0.00155	0.00116	-0.0145	-0.0145	0.00701	0.00642	-0.0260**	-0.0255**	-0.00118	-0.00121
	(0.00473)	(0.00513)	(0.00583)	(0.00581)	(0.0109)	(0.0108)	(0.0106)	(0.0106)	(0.0116)	(0.0114)	(0.00117)	(0.00119)
Married	0.00577	0.00664	0.000559	0.00124	0.00442	0.00489	-0.0433	-0.0433	0.000842	0.000250	0.000286	0.000270
	(0.00609)	(0.00671)	(0.00871)	(0.00875)	(0.00319)	(0.00348)	(0.0337)	(0.0337)	(0.00504)	(0.00490)	(0.000673)	(0.000662)
Education yrs	-0.000785	-0.000776	-0.000757	-0.000654	0.000203	0.000230	0.00170	0.00169	-0.00160	-0.00158	0.000572	0.000572
	(0.000701)	(0.000703)	(0.00123)	(0.00123)	(0.000961)	(0.000958)	(0.00394)	(0.00393)	(0.00106)	(0.00105)	(0.000562)	(0.000562)
Vocational d	0.00709	0.00629	-0.00412	-0.00452	-0.00133	-0.00188	0.0579*	0.0576*	0.00411	0.00453	-0.00287	-0.00284
	(0.00615)	(0.00553)	(0.00747)	(0.00747)	(0.00675)	(0.00749)	(0.0328)	(0.0330)	(0.00946)	(0.00937)	(0.00274)	(0.00271)
Local lang	0.00264	0.00278	0	0	0.00235	0.00246	0.00411	0.00439	-0.00341	-0.00329	0.00146	0.00145
	(0.00280)	(0.00289)	(.)	(.)	(0.00331)	(0.00319)	(0.0122)	(0.0121)	(0.00467)	(0.00482)	(0.00124)	(0.00123)
English	0.000218	0.000180	0.00790*	0.00739*	-0.00167	-0.00168	0.0127	0.0124	-0.00481	-0.00499	0.000512	0.000517
	(0.00240)	(0.00243)	(0.00449)	(0.00447)	(0.00117)	(0.00118)	(0.0108)	(0.0109)	(0.00736)	(0.00713)	(0.000621)	(0.000622)
Remittance d	0.00369	0.00314	-0.0216***	-0.0211***	-0.00448	-0.00469	0.0730**	0.0735**	0.000325	0.000214	0.000475	0.000464
	(0.00403)	(0.00367)	(0.00688)	(0.00684)	(0.00965)	(0.00980)	(0.0348)	(0.0347)	(0.00811)	(0.00793)	(0.000552)	(0.000551)
Family in HIC	-0.00284	-0.00252	-0.00101	-0.000724	-0.0101	-0.00955	-0.0210	-0.0202	0.0163	0.0176	-0.000897	-0.000887
	(0.00299)	(0.00280)	(0.0368)	(0.0367)	(0.00628)	(0.00594)	(0.0295)	(0.0295)	(0.0174)	(0.0175)	(0.00114)	(0.00114)
Has loan	0.0172	0.0169	-0.000947	0.00124	-0.0195**	-0.0197**	0.0130	0.0126	0.0715**	0.0718**	-0.00330	-0.00330
	(0.0146)	(0.0143)	(0.00404)	(0.00416)	(0.00803)	(0.00858)	(0.0252)	(0.0255)	(0.0334)	(0.0332)	(0.00338)	(0.00337)
Has savings	-0.00230	-0.000388	-0.0273***	-0.0239**	-0.00701	-0.00627	-0.0324	-0.0305	0.0213**	0.0220**	-0.00192	-0.00192
	(0.00476)	(0.00428)	(0.00972)	(0.00937)	(0.00548)	(0.00505)	(0.0324)	(0.0320)	(0.00982)	(0.00974)	(0.00210)	(0.00209)
Physical health	0.000824	0.000849	-0.000230	-0.000380	-0.000320	-0.000365	-0.00770**	-0.00771**	0.00451*	0.00452*	-0.0000993	-0.0000961
	(0.000636)	(0.000653)	(0.00137)	(0.00138)	(0.000259)	(0.000265)	(0.00309)	(0.00309)	(0.00244)	(0.00242)	(0.000107)	(0.000104)
Mental health	0.00119	0.00120	-0.00204*	-0.00191	0.0000511	0.0000558	0.00356	0.00343	0.000132	0.000171	0.000169	0.000164
	(0.00102)	(0.00102)	(0.00117)	(0.00117)	(0.000262)	(0.000271)	(0.00326)	(0.00325)	(0.00238)	(0.00239)	(0.000184)	(0.000181)
Trust in host	0.00264	0.00240	0.00212	0.00207	0.00532	0.00555	0.0177	0.0180	-0.00554	-0.00487	-0.000927	-0.000939
	(0.00217)	(0.00202)	(0.00791)	(0.00791)	(0.00422)	(0.00446)	(0.0138)	(0.0137)	(0.00556)	(0.00515)	(0.00110)	(0.00112)
Dependency ratio	0.000333	0.000220	-0.00325	-0.00326	0.00691	0.00658	-0.000205	-0.0000866	0.000179	0.000577	0.00342	0.00343
	(0.00135)	(0.00131)	(0.00264)	(0.00263)	(0.00670)	(0.00633)	(0.00634)	(0.00629)	(0.00425)	(0.00413)	(0.00313)	(0.00313)
Urban HH before	0.0109	0.0102	0.00485	0.00732	0.0204	0.0206	0.0196	0.0222	0.00261	0.00217	0.00854	0.00856
	(0.00930)	(0.00872)	(0.0137)	(0.0138)	(0.0181)	(0.0182)	(0.0180)	(0.0184)	(0.0107)	(0.0111)	(0.00872)	(0.00873)
Female-headed HH	0.00813	0.00834	0.000727	0.00157	-0.000117	0.00000121	-0.00779	-0.00785	-0.00955	-0.0102	-0.00161	-0.00161
	(0.00705)	(0.00720)	(0.00638)	(0.00639)	(0.00534)	(0.00548)	(0.0180)	(0.0178)	(0.00955)	(0.00967)	(0.00153)	(0.00153)
N	954	954	2684	2684	1134	1134	1348	1348	926	926	1623	1623
R-squared	0.145	0.147	0.109	0.112	0.175	0.176	0.277	0.278	0.237	0.238	0.0460	0.0461

Notes: OLS estimates using datasets collected in different locations separately, indicated in the column headings. Co-variates are listed on the left. All co-variates variables are listed and described in Appendix Table A.5. The dependent variable is a dummy variable, which is valued as one if a person expected to migrate internally, and zero otherwise. All regressions include year of fleeing, year of arrival, nationality, enumerator, survey site, enumeration area clusters, and region of birth in country of origin fixed effects. Missing values are dummied out. Clustered standard errors by enumeration area in parentheses. Adjusted using survey weights. * p<0.1, ** p<0.05, *** p<0.01

Table A.10: Factors influencing expectations to migrate internationally, by location

	Ethiopia				Kenya				Uganda			
	(1) Addis	(2) Addis	(3) Melkadida	(4) Melkadida	(5) Nairobi	(6) Nairobi	(7) Kakuma	(8) Kakuma	(9) Kampala	(10) Kampala	(11) Nakivale	(12) Nakivale
Living standards index	0.00224	-0.00883	-0.0113	-0.0115	-0.00927	0.00103	-0.00263	-0.0394*	0.000157	-0.00777	0.00842	0.0189
	(0.0381)	(0.0411)	(0.0162)	(0.0162)	(0.0117)	(0.0377)	(0.0110)	(0.0232)	(0.0190)	(0.0229)	(0.0147)	(0.0171)
Living standards index sq		0.0400		0.00216		-0.00255		0.0153*		0.00344		-0.00688
		(0.0318)		(0.0100)		(0.00702)		(0.00897)		(0.00485)		(0.00530)
Age	0.00270	0.00281	-0.00130	-0.00131	-0.00993	-0.0101	0.00307	0.00312	-0.00172	-0.00160	0.00117	0.000826
	(0.0101)	(0.0101)	(0.00338)	(0.00338)	(0.00622)	(0.00651)	(0.00864)	(0.00849)	(0.0115)	(0.0116)	(0.00452)	(0.00432)
Age sq	-0.00000874	-0.00000826	0.0000225	0.0000226	0.0000681	0.0000705	-0.0000268	-0.0000291	-0.00000712	-0.00000836	0.00000440	0.00000947
	(0.000128)	(0.000127)	(0.0000414)	(0.0000414)	(0.0000795)	(0.0000830)	(0.000118)	(0.000116)	(0.000149)	(0.000149)	(0.0000643)	(0.0000613)
Female	0.0934**	0.0969**	0.00774	0.00784	-0.0102	-0.0100	0.0429*	0.0403	-0.00780	-0.00727	0.0176	0.0190
	(0.0456)	(0.0455)	(0.0126)	(0.0126)	(0.0356)	(0.0356)	(0.0253)	(0.0253)	(0.0266)	(0.0267)	(0.0180)	(0.0182)
Married	0.0832**	0.0779**	-0.00511	-0.00528	0.0208	0.0195	0.0274	0.0277	0.0326	0.0319	-0.0153	-0.0144
	(0.0379)	(0.0380)	(0.0199)	(0.0198)	(0.0313)	(0.0311)	(0.0420)	(0.0423)	(0.0361)	(0.0362)	(0.0186)	(0.0184)
Education yrs	0.00345	0.00340	0.000250	0.000224	0.000694	0.000620	0.00466	0.00464	0.000832	0.000850	0.00107	0.00106
	(0.00810)	(0.00808)	(0.00305)	(0.00305)	(0.00342)	(0.00340)	(0.00412)	(0.00406)	(0.00256)	(0.00257)	(0.00373)	(0.00373)
Vocational d	-0.0153	-0.0105	0.0292	0.0293	-0.0318	-0.0303	-0.0735	-0.0750	-0.0294	-0.0290	-0.0219	-0.0234
	(0.0349)	(0.0353)	(0.0219)	(0.0219)	(0.0293)	(0.0275)	(0.0539)	(0.0538)	(0.0463)	(0.0464)	(0.0459)	(0.0458)
Local lang	0.0720**	0.0712**	0	0	0.00992	0.00963	-0.00951	-0.00830	0.0698**	0.0700**	-0.0247	-0.0242
	(0.0280)	(0.0279)	(.)	(.)	(0.0185)	(0.0185)	(0.0229)	(0.0228)	(0.0266)	(0.0265)	(0.0157)	(0.0157)
English	-0.00174	-0.00151	0.0316***	0.0318***	0.0189	0.0190	0.0498**	0.0483**	-0.00507	-0.00528	0.0278	0.0276
	(0.0303)	(0.0301)	(0.0121)	(0.0121)	(0.0205)	(0.0206)	(0.0233)	(0.0223)	(0.0215)	(0.0215)	(0.0181)	(0.0179)
Remittance d	0.0563	0.0596	0.0771***	0.0770***	0.111**	0.111**	-0.00896	-0.00669	-0.0327	-0.0328	0.000479	0.00106
	(0.0410)	(0.0411)	(0.0263)	(0.0263)	(0.0460)	(0.0468)	(0.0289)	(0.0287)	(0.0284)	(0.0285)	(0.0217)	(0.0217)
Family in HIC	0.0762**	0.0743**	0.0470	0.0469	0.118***	0.116***	0.0220	0.0254	0.0925**	0.0939**	-0.0347	-0.0353
	(0.0377)	(0.0377)	(0.0444)	(0.0444)	(0.0285)	(0.0281)	(0.0341)	(0.0333)	(0.0425)	(0.0422)	(0.0411)	(0.0412)
Has loan	-0.0876**	-0.0857**	-0.0334	-0.0339	0.0895*	0.0901*	-0.0491	-0.0509	-0.146**	-0.145**	0.0177	0.0179
	(0.0419)	(0.0418)	(0.0262)	(0.0265)	(0.0505)	(0.0485)	(0.0950)	(0.0997)	(0.0705)	(0.0705)	(0.0534)	(0.0530)
Has savings	-0.0473	-0.0588	0.107***	0.106***	-0.0173	-0.0193	0.0486	0.0566	0.0100	0.0109	0.0962***	0.0961***
	(0.0733)	(0.0742)	(0.0406)	(0.0408)	(0.0292)	(0.0304)	(0.0574)	(0.0603)	(0.0400)	(0.0397)	(0.0322)	(0.0320)
Physical health	0.00314	0.00299	-0.00120	-0.00116	-0.00156	-0.00144	0.0113***	0.0113***	-0.00255	-0.00254	-0.00993***	-0.0101***
	(0.00479)	(0.00478)	(0.00378)	(0.00379)	(0.00385)	(0.00372)	(0.00354)	(0.00353)	(0.00386)	(0.00387)	(0.00304)	(0.00304)
Mental health	-0.0185***	-0.0185***	0.0109***	0.0108***	0.00482	0.00481	-0.00657*	-0.00711*	0.00551	0.00555	0.00336	0.00362
	(0.00384)	(0.00385)	(0.00287)	(0.00287)	(0.00555)	(0.00551)	(0.00369)	(0.00389)	(0.00402)	(0.00400)	(0.00299)	(0.00305)
Trust in host	0.0337	0.0351	-0.0552***	-0.0552***	-0.0152	-0.0158	0.0447	0.0460	0.0305	0.0313	-0.0248	-0.0242
	(0.0244)	(0.0244)	(0.0159)	(0.0159)	(0.0180)	(0.0184)	(0.0312)	(0.0309)	(0.0217)	(0.0219)	(0.0153)	(0.0148)
Dependency ratio	0.0291	0.0298	0.0107	0.0107	0.0215*	0.0224	-0.00652	-0.00601	0.0152	0.0156	-0.0337***	-0.0341***
	(0.0224)	(0.0223)	(0.00754)	(0.00754)	(0.0120)	(0.0139)	(0.00707)	(0.00710)	(0.0141)	(0.0142)	(0.0111)	(0.0110)
Urban HH before	0.0626	0.0670	0.0856	0.0850	-0.0314	-0.0321	-0.0675	-0.0560	0.120**	0.120**	0.0106	0.00973
	(0.0442)	(0.0442)	(0.0584)	(0.0583)	(0.0401)	(0.0410)	(0.0544)	(0.0496)	(0.0574)	(0.0573)	(0.0299)	(0.0296)
Female-headed HH	0.0930*	0.0917*	0.0150	0.0148	0.0446	0.0443	0.0199	0.0196	-0.0183	-0.0191	0.0473*	0.0469*
	(0.0486)	(0.0486)	(0.0204)	(0.0205)	(0.0342)	(0.0340)	(0.0404)	(0.0400)	(0.0382)	(0.0382)	(0.0279)	(0.0277)
N	954	954	2684	2684	1134	1134	1348	1348	926	926	1623	1623
R-squared	0.497	0.498	0.631	0.631	0.498	0.498	0.484	0.487	0.600	0.600	0.445	0.446

Notes: OLS estimates using datasets collected in different locations separately, indicated in the column headings. Co-variates are listed on the left. All co-variates variables are listed and described in Appendix Table A.5. The dependent variable is a dummy variable, which is valued as one if a person expected to migrate internationally, and zero otherwise. All regressions include year of fleeing, year of arrival, nationality, enumerator, survey site, enumeration area clusters, and region of birth in country of origin fixed effects. Missing values are dummied out. Clustered standard errors by enumeration area in parentheses. Adjusted using survey weights. * p<0.1, ** p<0.05, *** p<0.01

Table A.11: Factors influencing hope to migrate (Ethiopia sample)

	Migrated		Internal		International	
	(1)	(2)	(3)	(4)	(5)	(6)
Living standards index	-0.0105	-0.00999	0.00868*	0.00937*	-0.0155	-0.0153
	(0.0125)	(0.0123)	(0.00498)	(0.00502)	(0.0129)	(0.0128)
Living standards index sq		-0.00713		-0.00910***		-0.00276
		(0.00852)		(0.00279)		(0.00866)
Age	0.00200	0.00202	0.000574	0.000610	0.00172	0.00173
	(0.00298)	(0.00298)	(0.00122)	(0.00122)	(0.00307)	(0.00308)
Age sq	-0.0000267	-0.0000271	-0.00000890	-0.00000947	-0.0000233	-0.0000235
	(0.0000370)	(0.0000371)	(0.0000153)	(0.0000153)	(0.0000384)	(0.0000384)
Female	0.0142	0.0138	0.00105	0.000581	0.0158	0.0157
	(0.0103)	(0.0102)	(0.00536)	(0.00533)	(0.0108)	(0.0108)
Married	-0.0420***	-0.0415***	0.00176	0.00251	-0.0378**	-0.0375**
	(0.0143)	(0.0143)	(0.00751)	(0.00756)	(0.0149)	(0.0149)
Education yrs	-0.00437**	-0.00430**	-0.000472	-0.000383	-0.00330	-0.00327
	(0.00209)	(0.00209)	(0.00107)	(0.00107)	(0.00221)	(0.00220)
Vocational d	0.0216	0.0212	-0.00121	-0.00173	0.0231	0.0229
	(0.0157)	(0.0158)	(0.00611)	(0.00611)	(0.0164)	(0.0164)
Local lang	-0.0122	-0.0122	0.00104	0.00104	-0.0107	-0.0107
	(0.0134)	(0.0134)	(0.00494)	(0.00491)	(0.0135)	(0.0135)
English	0.0382***	0.0378***	0.00495	0.00452	0.0345***	0.0344***
	(0.00981)	(0.00976)	(0.00380)	(0.00379)	(0.0101)	(0.0101)
Remittance d	0.0194	0.0195	-0.0146***	-0.0145***	0.0305	0.0305
	(0.0207)	(0.0207)	(0.00447)	(0.00446)	(0.0206)	(0.0206)
Family in HIC	0.0131	0.0132	0.00399	0.00416	0.0164	0.0164
	(0.0165)	(0.0165)	(0.00973)	(0.00970)	(0.0169)	(0.0170)
Has loan	-0.00226	-0.000955	0.00249	0.00416	-0.000311	0.000197
	(0.0180)	(0.0181)	(0.00493)	(0.00503)	(0.0183)	(0.0183)
Has savings	0.00726	0.0101	-0.0236***	-0.0200***	0.0123	0.0134
	(0.0358)	(0.0364)	(0.00733)	(0.00704)	(0.0360)	(0.0366)
Physical health	-0.00406	-0.00416	0.000182	0.0000607	-0.00376	-0.00379
	(0.00286)	(0.00288)	(0.00106)	(0.00106)	(0.00295)	(0.00296)
Mental health	0.00283	0.00291	-0.00147	-0.00136	0.00402*	0.00405*
	(0.00205)	(0.00205)	(0.000938)	(0.000931)	(0.00207)	(0.00207)
Trust in host	-0.0167	-0.0167	0.00259	0.00254	-0.0182	-0.0182
	(0.0120)	(0.0120)	(0.00644)	(0.00644)	(0.0129)	(0.0129)
Dependency ratio	-0.0144**	-0.0144**	-0.00289	-0.00290	-0.0138**	-0.0138**
	(0.00625)	(0.00625)	(0.00244)	(0.00243)	(0.00643)	(0.00643)
Urban HH before	0.0101	0.0106	0.00321	0.00388	0.0160	0.0162
	(0.0170)	(0.0166)	(0.00786)	(0.00784)	(0.0184)	(0.0183)
Female-headed HH	-0.0423**	-0.0416**	0.00126	0.00207	-0.0443***	-0.0440***
	(0.0166)	(0.0165)	(0.00576)	(0.00576)	(0.0170)	(0.0169)
N	3638	3638	3638	3638	3638	3638
R-squared	0.372	0.372	0.100	0.103	0.367	0.367

Notes: OLS estimates using data pooled across all samples. Co-variates are listed on the left. All co-variates variables are listed and described in Appendix Table A.5. The dependent variable in the first two columns is a dummy variable, which is valued as one if a person hopes to migrate in the next three years, and zero otherwise. The dependent variable in columns 3 and 4 is a dummy variable, which is valued as one if a person hopes to migrate to within the host country, and zero otherwise. The dependent variable in columns 5 and 6 is a dummy variable which is valued as one if a person hopes to migrate to a destination outside the host country, and zero otherwise. All regressions include year of fleeing, year of arrival, nationality, enumerator, survey site, enumeration area clusters, and region of birth in country of origin fixed effects. Missing values are dummied out. Clustered standard errors by enumeration area in parentheses. Adjusted using survey weights. * p<0.1, ** p<0.05, *** p<0.01

C.3 Regression results: migration decisions

Table A.12: Factors influencing migration decisions

	Migrated		Internal		International	
	(1)	(2)	(3)	(4)	(5)	(6)
Living standards index	0.0282	0.0417	0.00822	-0.00213	0.0200	0.0438
	(0.0248)	(0.0315)	(0.0127)	(0.0135)	(0.0263)	(0.0310)
Living standards index sq		-0.0142		0.0110**		-0.0252**
		(0.0110)		(0.00541)		(0.0108)
Age	-0.00953	-0.00989	0.0000789	0.000358	-0.00961	-0.0102
	(0.0112)	(0.0114)	(0.00456)	(0.00458)	(0.0115)	(0.0119)
Age sq	0.000117	0.000122	-0.0000125	-0.0000158	0.000130	0.000137
	(0.000151)	(0.000154)	(0.0000561)	(0.0000563)	(0.000158)	(0.000163)
Female	-0.00865	-0.00624	0.0161	0.0142	-0.0247	-0.0205
	(0.0367)	(0.0379)	(0.0209)	(0.0213)	(0.0344)	(0.0358)
Married	-0.0375	-0.0373	-0.0304*	-0.0305*	-0.00708	-0.00677
	(0.0275)	(0.0271)	(0.0167)	(0.0165)	(0.0294)	(0.0285)
Education yrs	-0.000758	-0.000885	-0.00168	-0.00159	0.000925	0.000700
	(0.00332)	(0.00330)	(0.00189)	(0.00187)	(0.00337)	(0.00334)
Vocation d	0.0523	0.0546	-0.0261**	-0.0279**	0.0784**	0.0825**
	(0.0363)	(0.0362)	(0.0119)	(0.0120)	(0.0334)	(0.0335)
English	0.0217	0.0219	0.0227*	0.0226*	-0.000986	-0.000636
	(0.0371)	(0.0363)	(0.0119)	(0.0117)	(0.0368)	(0.0351)
Local lang	0.0517*	0.0529**	0.00122	0.000292	0.0505*	0.0526**
	(0.0268)	(0.0253)	(0.0118)	(0.0118)	(0.0277)	(0.0254)
Remittance d	0.0301	0.0324	-0.00103	-0.00278	0.0312	0.0352
	(0.0243)	(0.0236)	(0.0197)	(0.0194)	(0.0229)	(0.0218)
Family in HIC	-0.00856	-0.0114	-0.0137	-0.0115	0.00518	0.000111
	(0.0521)	(0.0532)	(0.0403)	(0.0399)	(0.0549)	(0.0554)
Has loan	-0.0306	-0.0308	-0.00433	-0.00418	-0.0263	-0.0266
	(0.0461)	(0.0482)	(0.0251)	(0.0234)	(0.0373)	(0.0396)
Has savings	0.0510	0.0465	0.00383	0.00732	0.0472	0.0392
	(0.0391)	(0.0383)	(0.0165)	(0.0160)	(0.0390)	(0.0374)
Mental health	-0.00823**	-0.00791**	-0.000599	-0.000849	-0.00763***	-0.00706**
	(0.00335)	(0.00340)	(0.00255)	(0.00252)	(0.00293)	(0.00296)
Physical health	0.00906	0.00917*	0.00206	0.00198	0.00700	0.00720
	(0.00551)	(0.00549)	(0.00234)	(0.00234)	(0.00489)	(0.00483)
Trust in host	0.0572*	0.0552*	0.00438	0.00593	0.0528	0.0493
	(0.0334)	(0.0332)	(0.00677)	(0.00674)	(0.0339)	(0.0338)
Dependency ratio	-0.0260**	-0.0268**	-0.00794	-0.00732	-0.0180	-0.0194
	(0.0117)	(0.0120)	(0.00722)	(0.00728)	(0.0120)	(0.0123)
Urban HH before	0.0482	0.0509	0.0558	0.0537	-0.00755	-0.00279
	(0.0415)	(0.0413)	(0.0346)	(0.0347)	(0.0462)	(0.0467)
Female-headed HH	-0.00997	-0.0140	-0.0152	-0.0120	0.00520	-0.00197
	(0.0361)	(0.0360)	(0.0244)	(0.0244)	(0.0363)	(0.0365)
N	2294	2294	2294	2294	2294	2294
R-squared	0.333	0.335	0.279	0.281	0.374	0.379

Notes: OLS estimates using data pooled across the Nairobi and Kakuma samples. Co-variates are listed on the left. All co-variates variables are listed and described in Appendix. The dependent variable in the first two columns is a dummy variable *Migrated*, which is valued as one if a person left Nairobi or Kakuma since the previous wave, and zero otherwise. The dependent variable in columns 3 and 4 is a dummy variable *Internal*, which equals one if an individual was found in Wave 2 to have moved to another location within Kenya and zero otherwise (excluding local movements). The dependent variable in columns 5 and 6 is a dummy variable *International*, which is valued as one if a person left Nairobi or Kakuma to a destination outside Kenya since the previous wave, and zero otherwise. All regressions include year of fleeing, year of arrival, nationality, enumerator, survey site, enumeration area clusters, and region of birth in country of origin fixed effects. Missing values are dummied out. Clustered standard errors by enumeration area in parentheses. Adjusted using survey weights. * p<0.1, ** p<0.05, *** p<0.01

Table A.13: Factors influencing migration decisions, by location

	Migrated				Internal				International			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Kakuma	Kakuma	Nairobi	Nairobi	Kakuma	Kakuma	Nairobi	Nairobi	Kakuma	Kakuma	Nairobi	Nairobi
Living standards index	0.0421	0.0483	0.0129	0.00678	-0.0136	-0.0185	0.0348*	0.0149	0.0556	0.0668*	-0.0219	-0.00811
	(0.0351)	(0.0375)	(0.0248)	(0.0349)	(0.0148)	(0.0151)	(0.0205)	(0.0239)	(0.0356)	(0.0359)	(0.0246)	(0.0336)
Living standards index sq		-0.0150		0.00306		0.0120*		0.00993*		-0.0269*		-0.00687
		(0.0145)		(0.00689)		(0.00678)		(0.00545)		(0.0137)		(0.00733)
Age	-0.00701	-0.00759	-0.0286***	-0.0285***	0.00356	0.00402	-0.00820	-0.00796	-0.0106	-0.0116	-0.0204***	-0.0206***
	(0.0145)	(0.0148)	(0.00696)	(0.00695)	(0.00489)	(0.00487)	(0.00672)	(0.00676)	(0.0148)	(0.0152)	(0.00532)	(0.00535)
Age sq	0.0000938	0.000100	0.000358***	0.000357***	-0.0000546	-0.0000599	0.0000892	0.0000856	0.000148	0.000160	0.000269***	0.000272***
	(0.000197)	(0.000201)	(0.0000925)	(0.0000922)	(0.0000595)	(0.0000595)	(0.0000914)	(0.0000920)	(0.000204)	(0.000209)	(0.0000748)	(0.0000758)
Female	0.00554	0.00760	-0.0164	-0.0164	0.00593	0.00428	0.0230	0.0231	-0.000395	0.00332	-0.0394	-0.0395
	(0.0510)	(0.0523)	(0.0305)	(0.0306)	(0.0211)	(0.0212)	(0.0441)	(0.0448)	(0.0439)	(0.0451)	(0.0345)	(0.0351)
Married	-0.0423	-0.0407	0.0243	0.0256	-0.0105	-0.0118	-0.0445	-0.0405	-0.0318	-0.0290	0.0688**	0.0661**
	(0.0402)	(0.0396)	(0.0352)	(0.0358)	(0.0179)	(0.0176)	(0.0404)	(0.0394)	(0.0394)	(0.0380)	(0.0307)	(0.0298)
Education yrs	0.00139	0.00152	-0.00540*	-0.00528	-0.00162	-0.00173	-0.00400	-0.00363	0.00301	0.00325	-0.00140	-0.00165
	(0.00460)	(0.00464)	(0.00310)	(0.00320)	(0.00258)	(0.00256)	(0.00273)	(0.00270)	(0.00479)	(0.00477)	(0.00232)	(0.00231)
Vocation d	0.0610	0.0640	-0.0474	-0.0476	-0.0255*	-0.0279**	-0.0591*	-0.0598*	0.0865**	0.0918**	0.0117	0.0122
	(0.0407)	(0.0406)	(0.0417)	(0.0420)	(0.0130)	(0.0130)	(0.0328)	(0.0340)	(0.0365)	(0.0361)	(0.0305)	(0.0302)
English	0.0252	0.0231	0.0209	0.0204	0.0243	0.0260*	0.00885	0.00721	0.000943	-0.00287	0.0120	0.0131
	(0.0541)	(0.0526)	(0.0199)	(0.0198)	(0.0145)	(0.0145)	(0.0158)	(0.0157)	(0.0532)	(0.0507)	(0.0139)	(0.0141)
Local lang	0.0605	0.0621	0.0236	0.0239	0.00608	0.00486	0.0132	0.0142	0.0544	0.0572*	0.0104	0.00968
	(0.0396)	(0.0378)	(0.0257)	(0.0257)	(0.0126)	(0.0131)	(0.0198)	(0.0202)	(0.0359)	(0.0333)	(0.0331)	(0.0334)
Remittance d	0.0542*	0.0556**	-0.0702**	-0.0705**	0.0156	0.0145	-0.0484**	-0.0495**	0.0386	0.0411	-0.0217	-0.0210
	(0.0282)	(0.0275)	(0.0317)	(0.0315)	(0.0246)	(0.0243)	(0.0190)	(0.0191)	(0.0260)	(0.0248)	(0.0262)	(0.0260)
Family in HIC	-0.00977	-0.00970	-0.00211	-0.00141	0.0213	0.0212	-0.0465	-0.0442	-0.0311	-0.0309	0.0444	0.0428
	(0.0714)	(0.0706)	(0.0694)	(0.0695)	(0.0705)	(0.0702)	(0.0326)	(0.0317)	(0.0882)	(0.0865)	(0.0496)	(0.0508)
Has loan	-0.0419	-0.0443	-0.0640	-0.0639	-0.0139	-0.0120	-0.0149	-0.0145	-0.0281	-0.0323	-0.0492*	-0.0494*
	(0.0701)	(0.0716)	(0.0530)	(0.0532)	(0.0288)	(0.0300)	(0.0443)	(0.0451)	(0.0630)	(0.0667)	(0.0283)	(0.0289)
Has savings	0.0445	0.0415	0.0510	0.0518	-0.00861	-0.00619	0.0259	0.0284	0.0531	0.0477	0.0251	0.0234
	(0.0479)	(0.0474)	(0.0361)	(0.0363)	(0.0193)	(0.0189)	(0.0396)	(0.0398)	(0.0484)	(0.0471)	(0.0312)	(0.0321)
Mental health	-0.0101**	-0.00979**	0.0000259	0.0000624	-0.00248	-0.00270	0.00223	0.00235	-0.00757*	-0.00709	-0.00220	-0.00229
	(0.00462)	(0.00464)	(0.00396)	(0.00398)	(0.00293)	(0.00287)	(0.00286)	(0.00284)	(0.00429)	(0.00424)	(0.00311)	(0.00306)
Physical health	0.0124*	0.0123*	-0.00519	-0.00532	0.00326	0.00333	-0.00180	-0.00219	0.00913	0.00897	-0.00340	-0.00312
	(0.00691)	(0.00690)	(0.00387)	(0.00385)	(0.00278)	(0.00279)	(0.00324)	(0.00326)	(0.00616)	(0.00614)	(0.00290)	(0.00287)
Trust in host	0.0779**	0.0766**	-0.0427**	-0.0420**	0.00995	0.0111	-0.0247	-0.0225	0.0680*	0.0655*	-0.0180	-0.0195
	(0.0356)	(0.0356)	(0.0171)	(0.0172)	(0.00674)	(0.00673)	(0.0210)	(0.0205)	(0.0377)	(0.0377)	(0.0203)	(0.0200)
Dependency ratio	-0.0255*	-0.0262*	-0.000156	-0.000554	-0.00429	-0.00371	-0.0132	-0.0145	-0.0212	-0.0225	0.0131	0.0139
	(0.0140)	(0.0144)	(0.0169)	(0.0172)	(0.00845)	(0.00844)	(0.0129)	(0.0133)	(0.0132)	(0.0135)	(0.0170)	(0.0176)
Urban HH before	0.0323	0.0341	0.0781	0.0767	0.0758*	0.0743*	-0.0274	-0.0319	-0.0435	-0.0403	0.105*	0.109*
	(0.0454)	(0.0449)	(0.0765)	(0.0768)	(0.0411)	(0.0410)	(0.0478)	(0.0466)	(0.0552)	(0.0553)	(0.0577)	(0.0587)
Female-headed HH	-0.0779	-0.0819*	0.0393	0.0399	0.00222	0.00537	0.000513	0.00250	-0.0801*	-0.0872*	0.0388	0.0374
	(0.0476)	(0.0472)	(0.0501)	(0.0499)	(0.0251)	(0.0243)	(0.0411)	(0.0405)	(0.0437)	(0.0433)	(0.0419)	(0.0418)
N	1296	1296	998	998	1296	1296	998	998	1296	1296	998	998
R-squared	0.378	0.379	0.454	0.454	0.313	0.316	0.427	0.428	0.421	0.424	0.372	0.373

Notes: OLS estimates using the Kakuma and Nairobi datasets separately. Columns 1, 2, 5, 6, 9, and 10 report estimates using the Kakuma dataset, and the other columns report estimates using the Nairobi dataset. Co-variates are listed on the left. All co-variates variables are listed and described in Appendix Table A.5. The dependent variable in the first four columns is a dummy variable *Migrated*, which is valued as one if a person left Nairobi or Kakuma since the previous wave, and zero otherwise. The dependent variable in columns 5-8 is a dummy variable *Internal*, which equals one if an individual was found in Wave 2 to have moved to another location within Kenya and zero otherwise (excluding local movements). The dependent variable in columns 9-12 is a dummy variable *International*, which is valued as one if a person left Nairobi or Kakuma to a destination outside Kenya since the previous wave, and zero otherwise. All regressions include year of fleeing, year of arrival, nationality, enumerator, survey site, enumeration area clusters, and region of birth in country of origin fixed effects. Missing values are dummied out. Clustered standard errors by enumeration area in parentheses. Adjusted using survey weights. * p<0.1, ** p<0.05, *** p<0.01

Table A.14: Relationship between expected and actual migration

	All		Kakuma		Nairobi	
	(1)	(2)	(3)	(4)	(5)	(6)
Expect to migrate	0.0942**	0.0982**	0.117*	0.123**	0.0500*	0.0504*
	(0.0474)	(0.0492)	(0.0588)	(0.0611)	(0.0291)	(0.0294)
Living standards index	0.0299	0.0448	0.0454	0.0530	0.0122	0.00532
	(0.0249)	(0.0314)	(0.0355)	(0.0376)	(0.0243)	(0.0344)
Living standards index sq		-0.0157		-0.0180		0.00341
		(0.0111)		(0.0147)		(0.00692)
Age	-0.0103	-0.0108	-0.00877	-0.00956	-0.0279***	-0.0278***
	(0.0113)	(0.0116)	(0.0147)	(0.0151)	(0.00694)	(0.00694)
Age sq	0.000128	0.000133	0.000113	0.000122	0.000352***	0.000351***
	(0.000152)	(0.000156)	(0.000199)	(0.000203)	(0.0000922)	(0.0000920)
Female	-0.0125	-0.0100	-0.00226	-0.000180	-0.0158	-0.0157
	(0.0362)	(0.0373)	(0.0500)	(0.0511)	(0.0301)	(0.0302)
Married	-0.0370	-0.0368	-0.0413	-0.0393	0.0229	0.0243
	(0.0273)	(0.0268)	(0.0390)	(0.0383)	(0.0354)	(0.0360)
Education yrs	-0.00123	-0.00139	0.000613	0.000735	-0.00550*	-0.00538*
	(0.00340)	(0.00335)	(0.00470)	(0.00469)	(0.00313)	(0.00323)
Vocation d	0.0520	0.0545	0.0617	0.0653	-0.0471	-0.0473
	(0.0362)	(0.0361)	(0.0412)	(0.0412)	(0.0412)	(0.0416)
English	0.0181	0.0181	0.0186	0.0157	0.0205	0.0199
	(0.0359)	(0.0349)	(0.0522)	(0.0504)	(0.0199)	(0.0198)
Local lang	0.0512*	0.0525**	0.0607	0.0625	0.0228	0.0231
	(0.0270)	(0.0254)	(0.0395)	(0.0374)	(0.0258)	(0.0259)
Remittance d	0.0234	0.0257	0.0482	0.0495*	-0.0755**	-0.0758**
	(0.0256)	(0.0247)	(0.0295)	(0.0286)	(0.0337)	(0.0336)
Family in HIC	-0.0138	-0.0171	-0.0114	-0.0114	-0.00814	-0.00741
	(0.0517)	(0.0530)	(0.0701)	(0.0691)	(0.0701)	(0.0700)
Has loan	-0.0362	-0.0367	-0.0368	-0.0394	-0.0690	-0.0689
	(0.0464)	(0.0485)	(0.0733)	(0.0754)	(0.0532)	(0.0534)
Has savings	0.0522	0.0473	0.0458	0.0422	0.0527	0.0536
	(0.0404)	(0.0393)	(0.0497)	(0.0489)	(0.0366)	(0.0370)
Mental health	-0.00826**	-0.00791**	-0.00975**	-0.00941**	-0.000374	-0.000336
	(0.00328)	(0.00332)	(0.00456)	(0.00456)	(0.00406)	(0.00408)
Physical health	0.00894	0.00905	0.0123*	0.0121*	-0.00518	-0.00531
	(0.00567)	(0.00565)	(0.00717)	(0.00717)	(0.00383)	(0.00379)
Trust in host	0.0540*	0.0516*	0.0722**	0.0703**	-0.0426**	-0.0418**
	(0.0299)	(0.0293)	(0.0308)	(0.0304)	(0.0172)	(0.0174)
Dependency ratio	-0.0259**	-0.0268**	-0.0246*	-0.0254*	-0.00159	-0.00204
	(0.0118)	(0.0122)	(0.0142)	(0.0146)	(0.0168)	(0.0170)
Urban HH before	0.0497	0.0527	0.0382	0.0407	0.0785	0.0770
	(0.0400)	(0.0398)	(0.0435)	(0.0429)	(0.0760)	(0.0761)
Female-headed HH	-0.00963	-0.0141	-0.0778	-0.0825*	0.0367	0.0374
	(0.0359)	(0.0358)	(0.0470)	(0.0467)	(0.0500)	(0.0498)
N	2294	2294	1296	1296	998	998
R-squared	0.337	0.338	0.382	0.384	0.455	0.455

Notes: OLS estimates using data pooled across the Nairobi and Kakuma samples reported in columns 1 and 2. OLS estimates using Kakuma dataset is reported in column 3 and 4, and estimates using Nairobi dataset is reported in 5 and 6. Co-variates are listed on the left. All co-variates variables are listed and described in Appendix Table A.5. The dependent variable used is a dummy variable *Migrated*, which is valued as one if a person left Nairobi or Kakuma since the previous wave, and zero otherwise. All regressions include year of fleeing, year of arrival, nationality, enumerator, survey site, enumeration area clusters, and region of birth in country of origin fixed effects. Missing values are dummied out. Clustered standard errors by enumeration area in parentheses. Adjusted using survey weights. * p<0.1, ** p<0.05, *** p<0.01

C.4 Regression results: rents

Table A.15: Change in rent per bedroom in Nairobi

	All		Somali		Congolese	
	(1)	(2)	(3)	(4)	(5)	(6)
Wave 2 dummy	2302.7***	1996.4***	4462.5***	3273.7	1131.4***	343.3
	(530.3)	(570.5)	(1120.7)	(2100.4)	(299.8)	(351.7)
W/ controls	No	Yes	No	Yes	No	Yes
N	205	205	79	79	126	126
R-squared	0.149	0.326	0.223	0.664	0.198	0.451

Notes: OLS estimates using panel survey data collected in Nairobi. The dependent variable used in all regressions is rent paid per month per bedroom in Kenyan Shillings. OLS estimates using data on refugees in Nairobi are reported in column 1 and 2, estimates using data on Somali refugees are reported in 3 and 4, estimates using data on Congolese refugees are reported in 5 and 6. Household fixed effects included in all regressions. Co-variates are included in columns 2, 4, and 6 but not reported. Co-variates are job dummy, monthly income transformed using inverse hyperbolic sine, asset index, years of education, vocational dummy, English ability, Kiswahili ability, married dummy, received remittances dummy, networks in the Global North dummy, mental health, and physical health. All co-variates variables are listed and described in Appendix Table A.5. Missing values are dummied out. Clustered standard errors by enumeration area in parentheses. * p<0.1, ** p<0.05, *** p<0.01