Internal migration to Kinshasa 1970-2007: Investigating migrant characteristics in times of insecurity and economic crises

Session 006: Internal migration and urbanization: special applications
IUSSP Conference t 2013
Busan, South Korea

Jamaica Corker
Population Studies Center, University of Pennsylvania

Internal migration to Kinshasa 1970-2007:
Investigating migrant characteristics in times of insecurity and economic crises

Abstract

It is not clear how economic crises or conflict influence the process of internal migration and urbanization. This paper uses data from the MAFE-Congo dataset to investigate internal migration trends in to Kinshasa, the capital of the Democratic Republic of Congo (DRC), by examining the migration histories of 389 lifetime migrants to the city. The analysis considers whether most migration was rural-to-urban and if recent decades of civil conflict and economic crises in the DRC coincided with higher levels of in-migration to Kinshasa. Although the data shows an increase in the number of moves during heightened periods of conflict towards the end of the 1990s, this is not found to be an overall trend when cohort and age patterns of migration are accounted for. Additionally, the overwhelming majority of migrants to Kinshasa were born in other cities, not in rural areas as might be expected given DRC's high rates of rural-to-urban migration, and most migrants were born in the provinces adjacent to Kinshasa. This implies that patterns of migration to Kinshasa reflect geographic proximity and urban-to-urban migration patterns more than direct efforts to flee the impacts of conflict, which in turn suggests that the end of the conflict in the DRC may not lead to decreases in migration to Kinshasa.

Introduction

This paper aims to add to the understanding of internal migration trends in the Democratic Republic of Congo (DRC) by examining the migration histories of 389 lifetime migrants (current Kinshasa residents born outside of Kinshasa) captured by the MAFE-Congo survey carried out in 2007. It capitalizes on the retrospective internal migration histories collected from all respondents in Kinshasa to investigate the socio-demographic profiles of those respondents categorized as internal migrants. This study uses selected indicators to produce descriptive statistics of migrants to Kinshasa and to investigate whether recent periods of civil conflict and economic crises in the DRC had an impact on patterns of in-migration to Kinshasa. While the results are not necessarily generalizable, due to the small sample size and questions about sample selection, they nonetheless provide a first glimpse of the profile of these internal migrants to the DRC's capital and dominant city. The analysis here will also give examines whether recent periods of civil conflict and economic crises in the DRC had an impact on patterns of in-migration to Kinshasa.

To date there is no research which specifically addresses current internal migration patterns, rates or levels in the DRC. While this study cannot begin to fully address these issues directly, it is a first step in exploring the origins and characteristics of a subset of migrants to Kinshasa from other parts of the country. Although largely exploratory and descriptive, it is hoped that examining the profiles and trajectories of these migrants will contribute a small part of the unknown story of DRC's internal "voluntary" migration in the past four decades.

Theories of Migration

There is long history of extensive literature on the causes of migration. The earliest systematic theory of migration proposed by Ravenstein in the nineteenth-century when he theorized that the laws of migration could be summarized as: (1) people moving from densely to sparse populated areas; (2) people migrating from low to high income areas; and/or (3) people move by in fluctuation with the economy/business cycle. These approaches become synonymous with the "push-pull" theory, which postulated that there are alternating factors which "push" people to leave certain areas while "pulling" them to move to others. Traditional push factors include population growth, low living standards, lack of economic opportunities and political repression, among others. Conversely, pull factors could include high labor demand elsewhere, availability

and affordability of land, better economic opportunities and political freedoms (Castles and Miller 1993). Although still commonly referred to in general discussions about migration, the simplistic push-pull theory is not widely believed to adequately explain the nuances behind decisions to migrate.

More recent theories of internal migration have focused on individual decision-making in relation to migration. The neoclassical theory views migration as an individual decision for income maximization based on a cost-benefit calculation (Massey 1993). Sjaastad (1960) provided the basis of the neoclassical theory placing migration in the resource allocation framework by looking at rural-to-urban migration in the US to explain how urban migration is often the best way for a rural migrant to increase wages. Individuals are also considered the main actors in the relative deprivation theory of migration, which largely supports the neoclassical approach but postulates that individuals who are less advantaged within a community have a greatest motivation to migrate (Stark 1984). In this school of thought, migration is a means for those most disadvantaged relative to those around them at the local level to improve their socio-economic position by migrating to urban areas or internationally. The new economics of migration theory, on the other hand, challenges the idea of the individual decision-maker in the migration process and sees migration decisions as made by families or larger units, who may choose to send a member to migrate to maximize expected outcomes for the group (Massey et al. 1993). For international migration, these theories consider beneficial migration as moving from poorer to richer areas or countries; for internal migration this is nearly always seen as migrating from rural to urban areas. In both cases, the migration of an individual and/or family or community member is made on a calculated decision based on expected better opportunities or outcomes at the place of destination.

Each migration involves a place or origin and place of destination, although an individual can have a number of such moves in a lifetime and can temporarily migrate to one or more areas or establish permanent residence in a new location. The different types of individual moves, or migrations, are many and varied, perhaps best characterized by Riddell and Havey's (1972) list of the overriding types of migration as: "periodicity-sporadic, seasonal, target, once-in-a-lifetime, permanent; distance-local, medium range, long distance; forces-forced, induced, spontaneous; motives-economic, social, psychological; spatial patterning-distance decay,

environ-mental spatial patterning, hierarchical moves." In sum, they are numerous and complicated.

Internal Migration: Rural to Urban migration

This paper focuses on internal migration, that is migration entirely within a country's borders. Internal migration is generally far more difficult to document than is international migration, as in most cases individuals do not need documents or to register with the national government to move within a country and these movements are not often documented. As a result, statistics and research on internal migration are generally harder to come by and often less specific than those on international migration flows.

A large portion internal migration tends to be rural-to-urban migration, particularly in an increasingly urbanizing world. The United Nations estimated that in 2009, for the first time in history, more than half of all people were living in urban areas. With an annual urban growth rate of 3.4%, Africa is currently the world's fastest urbanizing continent and is projected to remain that way until 2030 when the continent is estimated to transition from being predominately urban to predominately rural (UNHABITAT 2010). Cities have long offered distinct advantages over rural areas, particularly in terms of infrastructure and better economic and education opportunities. The propensity to migrate to urban areas has long been thought to be inversely proportional to their distance from the place of origin (Riddell and Harvey 1972), although the increased ease of transportation in many parts of the world, particularly air travel, may increasingly question that assumption.

Two of the most popular spatial frameworks associated with rural-to-urban migration are 1) one-step migrations or 2) relocating by stages or "step-wise" migrations (Riddell and Harvey 1972). One step migration implies a single geographic relocation from a rural place of origin to an urban area. Under this theory, migration is largely rural to urban and the transition is done in a direct move. On the other hand, step-wise migration, or migration by stages, envisions a migratory trajectory in steps, with a migrant's place of origin as invariably rural, one or more intermediary moves to larger areas or towns and the final destination with the largest or capital city (Beauchemin and Bocquier 2004; Conway 1980). Step-wise theory has only a limited number of empirical studies to support it (Conway 1980) and most recent studies in the African setting

seem more skeptical than supportive of the idea step-wise migration trajectories (Caldwell 1969, Beauchemin and Bocquier 2004). Riddell and Harvey (1972), however, found some evidence of step-wise migration patterns from the 1963 Sierra Leone census data, but only in a limited part of the country and under certain circumstances (namely with a great distance to a major urban area but the presence of a closer, intermediate city). A complicating factor surrounding step-wise migration is the difficulty of its documentation and analysis, particularly if migrants have more than two moves over their lifetime (Conway 1980) and attempts at mapping an individual's migration trajectory in Africa in the 1960s were characterized by Riddell and Harvey (1972) as a "confused mass" (pg. 270).

A potential confounder of one step migration with step-wise migration is that if a migrant in fact has one or more intermediary moves from a rural place of origin to the urban final destination, if these are not documented then a step-wise migration becomes de-facto one step migration. In sum, it appears that perhaps little has changed since 1974 when Byerlee noted that, despite research from a number of studies on migrants and migrant characteristics in Africa, there was still no established theory of rural-urban migration.

Internal Migration and Conflict

The majority of studies that look at the impact of conflict or violence on international migration have found a direct connection between violence and out-migration (Bohra-Mishra and Massey 2011). However, the lion's share of the literature on migration and conflict focuses on international rather than internal migration. Furthermore, research on crisis migration is dominated by work on "forced migrants" who have been forced to flee fighting and refugee flows[1]. However, not all migrants during or following a period of conflict are forced, and documenting these types of migrants and migrations is often far more difficult than following forced migration flows (which are often estimated by governments or international agencies).

The research which does exist on internal migration during times of conflict that is not "forced migration" is almost exclusively from Latin American countries. The absence of evidence from

[1] The International Organization for Migration (IOM) defines forced migration as "a migratory movement in which an element of coercion exists, including threats to life and livelihood, whether arising from natural or man-made causes (IOM 2004). Forced migrants are classified as either refugees, when they cross international borders, or internally displaced persons (IDPs) when they remain within their country of origin.

Africa has been noted in the literature and attributed largely to the lack of appropriate data (Schoumaker, Vause and Mangalu 2010), particularly as it applies to countries most impacted by war and conflict, including Angola, Somalia, DRC among others (Tabutin and Schoumaker 2004). Despite the dearth of information on Africa, it is reasonable to expect some similarities in migratory behavior in times of conflict across regions. As such, an examination of the Latin American literature will provide the basis (the only one so far) of patterns of non-forced migratory behavior during conflict.

Evidence from Latin America

The Latin American experience show a complex interplay between migration and times of economic/political crises. In most cases it is extremely difficult, if not impossible, to separate the impact of concurrent political and economic crises, given that economic crises often accompany political crises and the difficulty in separating out economic and political factors in times of dual crises (Stanley 1987). Although economic migration is a fairly consistent phenomenon, times of severe economic crises have been widely shown to coincide with increased levels of international migration (Massey and Capoferro 2006, Adepoju 2003, Jokisch and Pribilsky 2002, Massey 1988). The greater relative influence of economic or political factors may be largely context dependent. Morrison and May (1994) found deteriorating economic conditions to be a more important predictor of migration between provinces in Guatemala than violence while Stanley (1987) concluded that economic factors were less important than violence or conflict related factors on Salvadorian migration to the US in the 1980s.

Studies on internal migration in times of conflict or heightened violence also show a complex interaction with migration. Schultz (1971) found rural violence to be a significant predictor of urban migration in Colombia but that this effect of violence on migration was small relative to other socioeconomic and demographic variables associated with migration. Migration in Guatemala (Morrison 1993) and Colombia (Morrison and Perez Lafaurie 1994) was strongly associated with both outbreaks of violence and worsening economic conditions, but that people were likely to move only after violence reached a certain threshold. Bohra-Mishra and Massey's (2011) investigation of international and internal migration in Nepal during the decade of civil conflict from 1995-2006 showed that violence had a non-linear effect on migration and that predictors of migration did not change during periods of violence.

Severe crises, economic or political, appear to have different impacts on different categories of migrants and there is some evidence that migrant profiles may change during periods of intense political or economic crises. For example, Massey and Capoferro (2006) found that the economic crises in Peru in the 1990s led to a decrease in migrant selectivity, with migration becoming less selective by education level during the crisis. Likewise, Jokishch and Pribilsky (2002) found that the Ecuadorian migrant profile became more diversified in terms of gender and socio-economic status during the economic and political crises of the 1990s (although the migrants studied were those immigrating internationally).

Although the literature on internal migration and conflict lacks a general theory on migration in times of severe crises, it does point to an association between violence and migration, as well as to the interplay of outmigration due to economic turmoil and violence. Yet it also lends support to the primary importance of socio-demographic and economic variables for migration, even during times of civil conflict. We can assume, then, that an investigation of internal migration in the DRC during the past few decades would show a similar association between times of heightened conflict and heightened migration.

The Democratic Republic of Congo

Background

The Democratic Republic of Congo (DRC) is a vast country (equivalent in size to Western Europe) that dominates Central Africa. With an estimated population of just over 70 million people, it is Africa's third most-populous country. The DRC is also among the poorest countries in the world, ranking last of 187 countries in the 2011 Human Development Index (UNDP 2011). The country has only recently emerged from nearly a decade of prolonged conflict, which lasted roughly from 1996-2004 and was world's deadliest war since World War II. Though disputes about the true casualty count remain uncertain, the most reliable estimates put it at 5.4 million people (IRC 2009).

Map 1: Democratic Republic of Congo

There is a dearth of recent demographic data on the DRC, likely due to the difficulties of conducting research during the years of conflict, in addition to the challenging work environment presented by the DRC even in times of relative stability. As a result, remarkably little is known about the current demographic trends or international migration patterns of the DRC. Even less is known about internal migration in recent decades. The country's last census was carried out in 1984 but the data was not made widely available. Although it is established that severe political or economic crisis can influence levels, flows and composition of migrants, there is little research on to what degree this has happened within the DRC (Schoumaker, Vause and Mangalu, 2010), particularly considering the size and scope of the conflict and the country's relative influence on the entire Central African region.

While true counts remain elusive, there is speculation that both the civil conflict and economic turmoil have led to widespread internal migration in the past two decades, in addition to the massive IDP flows parts of the country (Shapiro and Tambashe 2001). Although this study is not focused on DRC's forced migrants, it seems reasonable to assume at the outset that the country may have experienced increased rates of internal migration indirectly caused by the impact or aftermath of the prolonged war. While many migrants during times of conflict may not be forced to flee direct hostilities, they may feel that they have no choice but to leave their place of origin because of concerns for their current or future well-being that would not otherwise have caused them to consider migrating. Turton's (2003) approach to the blurred distinction between forced and unforced migration as a continuum may be more appropriate for evaluating migration that is

an indirect response to violence or economic crises, or the migration which may follow in the wake of the end of hostilities. While the motivations of individual migrants in this study are not available, this paper hypothesizes that individuals were more likely to move during or following severe episodes of insecurity or economic downturn. As such, takes as its starting point the theory that many, if not most, of the DRC's recent internal migrants are closer to forced migrants than voluntary migrants on the migration continuum; they are neither forced migrants nor those who would likely have migrated in the absence of the war.

Kinshasa

This study focuses on Kinshasa, the DRC's capital and largest city. In the 50 years since the DRC's independence from Belgium, Leopoldville was re-named Kinshasa and its population is estimated to have more than quintupled. According to the United Nations, Kinshasa's population has doubled in the past 15 years alone, to nearly 9 million, and is projected to double to *again* by 2025 and become Africa's largest urban agglomerate, surpassing both Lagos and Cairo (UNHABITAT 2008). There is, however, substantial uncertainty surrounding current and future estimates of Kinshasa's population and this level of ambiguity is due in large part to uncertainty of levels of migration to the capital during and following the years of conflict.

This war is widely assumed to have increased migration to Kinshasa, particularly as Kinshasa was for the most part spared of any direct fighting (Putzel 2008). Furthermore, Kinshasa is not only the DRC's capital and largest city, it is also the country's economic capital, which makes migration from other parts of the country appealing in both times of stability as well as upheaval. Although Shapiro (2004) estimated that the majority of Kinshasa's growth in the period 1965-1984 was due to natural growth, recent trends in fertility decline in the wake of rapid increases in rates of urban growth suggests that migrants may contribute to Kinshasa's continued urban growth.

Data and Methods

This analysis uses data collected in Kinshasa from August-September 2007 by the Migrations between Africa and Europe (MAFE) project. Although the MAFE-Congo project's primary focus was to gather information on international migration, retrospective information on migration trajectories was also collected in 992 individual interviews. This information included:

the individual's place of birth, timing and location of each move up to the time of the interview in Kinshasa, and the individual's employment activity history, as well as socio-demographic variables (including age, sex, education level, occupation, marital status and socio-economic indicators). This data will allow for an analysis of migrant characteristics, as well as examining migrant counts from different provinces and urban/rural patterns in migration lifetime migration among those individuals included in the dataset.

Sampling for the survey was based on that used for the 2007 Demographic and Health Survey, with sample clusters classified according to estimates of their prevalence of migration (strong, medium or weak) and 30 survey clusters were randomly sampled from within these three categories, with the probability proportional to their population size. The survey sampling was particularly difficult given the lack of reliable census data, so sampling bias is not an issue that can be ruled out (Schoumaker, Vause and Mongalu 2010).

Macro-level data used to measure periods of economic and political instability are borrowed from Schoumaker, Vause and Mangalu's 2010 paper which analyzed the MAFE-Congo dataset for international migration trends[2]. That study designated the 1990s as "one of the darkest periods in Congo's recent economic and political history" (pg. 153). That decade saw declining economic outcomes during the decade (when GDP growth decreased from -6.6% in 1990 to -14% in 1999), coupled with the outbreak of conflict following the Rwandan genocide in 1994. Data on international migration also suggests that migration from the DRC to Europe was particularly high during the early part of the decade. For these reasons, and due to the small sample size of internal migrants, this paper will consider the 1990s as a decade of turmoil during which migration is theorized to be relatively high, rather than accounting for specific years of increased levels of economic or political crises from 1970-2007.

The analysis here is largely limited to counts of migrations/moves and to descriptive statistics focused on migrant characteristics. In contrast to Schoumaker, Vause and Mangalu's 2010 paper, which calculated migration rates using all members of interviewed households as the population at risk of migration, there is no corresponding risk population for retrospective individual

[2] Economic conditions were determined using GDP growth rate data from the World Development Indicators (World Bank 2010) and political conditions using the "Internal Wars and Failures of Governance, 1955-2007" data from the Political Instability Task Force (George Mason University).

migration histories. Thus rates of internal migration could not correspondingly be calculated and trends in migration rates could not be analyzed as part of this paper as there is no appropriate comparison group of "non-migrants."[3]

It is important to note that there are substantial portions of missing data on a number of variables throughout the dataset. Rather than impute missing data (which seemed inappropriate to do in most cases, particularly for imputing time-varying occupation status), analysis includes only those individuals for whom data was available on respective variables. In some cases, missing data restricted the level of analysis. For example, migrations are categorized on an annual basis only, due to the fact that over one-third of all months of migration had missing values (and that assuming that migrations with missing month data occurred half-way through the interval led to substantial heaping of moves). Many variables also contained contradictory information (e.g. non-correspondence between two survey questions on place of birth); the best efforts were made to resolved such contradictions by re-visiting them and matching as appropriate. Nonetheless, as a result most of the analyses below contain only the subsets of the original 389 migrants for which data is not missing.

Variables of interest

Place of birth

Migrants here are defined as individuals born outside of Kinshasa but within the DRC. Those individuals born in Kinshasa are considered non-migrants. Of the 992 individuals surveyed in Kinshasa in the MAFE-Congo study, 39.2% (n=389) were born in other provinces of the DRC. Migration episodes in this paper are considered to be the place of birth as origin and Kinshasa as the final destination. For the purpose of this analysis, and given the lack of information on future migration intentions, all individuals are considered to be permanent residents of Kinshasa at the time of the survey.

Age at migration

The MAFE-Congo survey interviewed only individuals aged 20-60, because it was believed that individuals younger than twenty were unlikely to be able to make independent decisions about

[3] Using DHS data to provide a comparative population of non-migrants from other DRC provinces was initially considered but ultimately rejected as the number of migrants from most provinces (see page 15) were too few to make appropriate comparisons.

migration, particularly international migration (the focus of the MAFE-Congo study). Using this approach to take personal agency into consideration when examining the migrant profiles for a number of variables only individuals aged 15 or older at the time of their first move were included. The minimum age was lowered from 20 to 15 because 1) it seems probable that internal migration decisions could be made at younger ages and 2) restricting the analysis of age at first move for some indicators would too drastically decrease the sample size. In some cases, individuals at all ages of migration were examined for comparative purposes or because there was no justification for limiting the sample by age at migration.

City and province of birth

Data was collected on the town/city and province of birth of respondents. Resident type (urban or rural) of place of birth was identified for each migrant, as was the population size at the place of birth (World Gazeteer 2011). Residence location types at birth were then categorized according to size using a list of all urban areas and population within the DRC. Places not identified on the list were classified as rural. As the DRC considers any area with more than 2,000 to be urban, all other "urban" areas were re-classified according to size in order to take into consideration the variation of size in urban areas, according to the following categories:

Table 1: Rural and Urban places of birth by population category

Population	Category
< 2,000	rural
2,000-10,000	semi-rural
10,000-50,000	semi-urban
50,000 – 150,000	urban
150,000 +	major urban

Education

The education variable used was the highest level of education attended (not necessarily completed), categorized in the survey as: no education, primary school, secondary school and higher education. This variable was taken directly from the dataset.

Occupation status

Survey respondents were asked to account for their work or study activities from the age of six on. In this analysis, the thirteen employment status variables from the survey were combined to make three new categories: employed (actively working, apprenticeship or military service), not

working (unemployed, without occupation, homemaker, retired, long-term illness/disability, other activities or other) or studying (primary school, secondary school, higher education or other training).

Birth cohorts

In order to account for age patterns of migration, individuals who migrated were divided into 10-year birth cohorts. Thus, birth cohorts are defined four cohorts: those born before 1957 and those born between 1957-1966, 1967-1976, and 1977-1987 (1987 is the latest recorded year of birth for a respondent and twenty years before 2007, when the MAFE-Congo survey was carried out).

Results

I begin by comparing descriptive statistics of migrants and non-migrants, including education level, marital status and birth cohort distribution at the time of the survey.

Table 2: Demographic and socio-economic characteristics of migrants and non-migrants

Characteristics	Total	Migration Status		*p-value*
		Born in Kinshasa	Migrated to Kinshasa	
	N (%)	*n* (%)	*n* (%)	
Migration status	992 (100%)	603 (60.8%)	389 (39.2%)	
Migrant resident type at birth				
Rural		-	45 (11.7%)	
semi-rural		-	19 (4.9%)	
semi-urban		-	79 (20.5%)	
Urban		-	85 (22.1%)	
major urban		-	157 (40.8%)	
Education				0.026
no schooling	8 (0.9%)	4 (0.7%)	4 (1.1%)	
Primary	105 (11.3%)	44 (7.8%)	61 (16.7%)	
Secondary	657 (71.0%)	437 (77.9%)	220 (60.3%)	
superior/university or higher	156 (16.9%)	76 (13.6%)	80 (21.9%)	
Marital status (time of survey)				0.000
Married	726 (73.2%)	415 (68.8%)	311 (80.0%)	
Cohort				0.000
born before 1957		23 (4.0%)	73 (19.1%)	
born 1957-1966		92 (15.8%)	92 (24.1%)	
born 1967-1976		217 (37.3%)	118 (31.0%)	
born 1977-1987		250 (43.0%)	99 (25.9%)	

* p<0.05, ** p<0.01, *** p<0.001

Perhaps the most striking information from this table is that of those respondents born outside of Kinshasa, only 15% were born in areas considered rural or semi-rural, while just over 40% were born in the DRC's largest cities and more than 44% from cities of 10,000-150,000[4]. Although limited in its generalizability, the place of birth of migrants in this study suggests that migrants to Kinshasa are not made up primarily of rural-to-urban migrants but, to the contrary, are primarily urban-to-urban migrants, with the largest group coming from the DRC's other larges cities. This pattern could arguably support the theory of step-wise migration –or at least hint at an inter-generational step-wise migration (Shaw 1975)– from rural areas to cities of medium and subsequently increasingly larger size. What we do not see in the data is a large proportion of migrants who hail originally from rural areas, and we can say that the vast majority of respondents of this survey who migrated to Kinshasa were born in urban, not rural, areas.

We also see that the education level at the time of the survey is nearly identical for those who were born in Kinshasa and those who migrated there. Migrants are over-represented in the younger cohorts and were more likely to be married at the time of the survey.

Map 2 and Table 3: Distribution of province of birth for migrants

Province of birth	*N*	%
Bas Congo	70	18.0%
Bandundu	127	32.7%
Equateur	59	15.2%
Province Orientale	14	3.6%
Maniema	8	2.0%
South Kivu	3	0.7%
North Kivu	2	0.5%
Kasai Occidental	30	8.1%
Kasai Oriental	34	8.8%
Katanga	33	8.5%
Other (unidentified)	8	2.6%

[4] Cities are classified according to their estimated population size in 2011, though both size and rank may have been different at respondents' times of birth. However, in the absence of the 1984 census data, there is no reliable and comprehensive list of Congolese city sizes and ranks that could be matched to respondents' years of birth.

As Map 2 and Table 3 show, most migrants to Kinshasa are from Bandundu, Bas Congo and Equateur – the three provinces closest to Kinshasa. Bandundu and Bas Congo boarder Kinshasa, while the Congo River (one of the main transportation routes in the DRC) runs through Equateur province and serves as a major transportation conduit between Equateur province and Kinshasa. The large number of Kinshasa migrants originating from these three provinces may simply reflect the logistical transportation advantage these three provinces have with regard to traveling to the capital.

Of note, the two provinces hit hardest by the prolonged civil conflict, North and South Kivu, are birth provinces of only 2 and 3 individuals, respectively. While this may initially seem to contradict the idea of conflict as a driver for migration (forced or voluntary), it is important to keep in mind that travel to Kinshasa from the east of the DRC is almost prohibitive. With only 2,794 km of paved road in the entire country (CIA 2011), and no road leading from the east to the west of the country, air travel for all practical purposes the only way to move from the Kivu provinces to the west of the country. Given the shared language of the eastern DRC and its neighboring countries, it is likely that migrants may choose to move within the eastern part of the country or to neighboring countries, rather than migrating to the linguistically and culturally different capital out west. The United Nations High Commissioner for Refugees (UNHCR) estimated of the more than 250,000 Congolese refugees in neighboring countries in 2007, the majority were living in countries that border the east: Uganda, Rwanda, Tanzania and Zambia (UNHCR 2007). Furthermore, the countries bordering the DRC's western provinces –the Central African Republic, the Republic of Congo and Angola– have also experienced prolonged conflicts of their own. As a result, it may be that migrants from the western provinces are more likely to move to Kinshasa in times of economic or political crises, while their counterparts in eastern provinces may be more likely to migrate to neighboring countries.

Table 4: Number of lifetime moves per migrant

Number of migrations per individual	**Total**		**Men**		**Women**	
	N	%	*n*	%	*n*	%
1	334	*35.1*	140	*29.2*	193	*41.0*
2	192	*20.2*	97	*20.2*	95	*20.2*
3	165	*17.3*	87	*18.1*	78	*16.6*
4	86	*9.0*	49	*10.2*	37	*7.9*
5	60	*6.3*	36	*7.5*	24	*5.1*
6	42	*4.4*	26	*5.4*	16	*3.4*
7	31	*3.3*	19	*4.0*	12	*2.6*
8	22	*2.3*	14	*2.9*	8	*1.7*
9	14	*1.5*	7	*1.5*	7	*1.5*
10	4	*0.4*	3	*0.6*	1	*0.2*
11	2	*0.2*	2	*0.4*	-	-
Total migrations	**952**	*100.0*	**480**	*100.0*	**471**	*100.0*

The majority of migrants made less than two moves from their place of birth to Kinshasa. Women were more likely than men to have moved only once (41% vs. 29%), with only half as many women as men migrating four or more times.

To investigate the potential relationship of employment status on migration, each migration date for all individuals was merged with the data on their employment status (employed, unemployed or studying) at the time of the move. Table 5 shows the distribution of migrants across these three categories at each move, as well as the average age of the migrants at each move. Only migrations that occurred when individuals were aged 15 or older were included, as comparing individuals who moved as children with their families tells us little about any potential relationship between their employment status and migration at the time.

Table 5: Employment status at time of migration (for all migrations occurring after age 15)

Males

Migration #	*N*	% Unemployed	Avg age: unemployed	% Studying	Avg age: studying	% Employed	Avg age: employed
1	86	*28%*	21.6	*37%*	21.6	*26%*	21.6
2	76	*24%*	27.1	*24%*	27.1	*33%*	27.1
3	77	*22%*	28.0	*12%*	28.0	*38%*	28.0
4	41	*22%*	29.0	*12%*	29.0	*44%*	29.0
5	33	*15%*	30.6	*18%*	30.6	*39%*	30.6
6	25	*20%*	31.4	*16%*	31.4	*40%*	31.4
7	19	*11%*	32.5	*16%*	32.5	*53%*	32.5
8	14	*21%*	33.5	*14%*	33.5	*43%*	33.5
9	7	*0%*	37.4	*0%*	37.4	*57%*	37.4
10	3	*0%*	39.3	*0%*	39.3	*67%*	39.3
11	2	*0%*	51.0	*0%*	51.0	*50%*	51.0

Females

Migration #	*N*	% Unemployed	Avg age: unemployed	% Studying	Avg age: studying	% Employed	Avg age: employed
1	103	*48%*	21.7	*13%*	21.7	*12%*	21.7
2	60	*30%*	24.9	*18%*	24.9	*8%*	24.9
3	64	*25%*	26.8	*16%*	26.8	*19%*	26.8
4	31	*26%*	27.9	*16%*	27.9	*19%*	27.9
5	24	*25%*	30.8	*8%*	30.8	*13%*	30.8
6	16	*31%*	29.6	*13%*	29.6	*6%*	29.6
7	12	*33%*	32.5	*8%*	32.5	*8%*	32.5
8	8	*25%*	34.1	*13%*	34.1	*13%*	34.1
9	7	*29%*	39.0	*0%*	39.0	*29%*	39.0
10	1	*100%*	34.0	*0%*	34.0	*0%*	34.0
11	0	-	-	-	-	-	-

At each order of move, a greater proportion of women than men were unemployed and, correspondingly, a greater proportion of men were employed at each move than were women. With the exception of those who moved three or four times, a greater proportion of men than women were in school at each move. The fact that smaller proportions of women were employed or in school at the time of migration may indicate a higher proportion of marriage-related migration (for marriage or to join a husband who migrated previously) for women. Although the proportional differences are not always substantial, they do suggest that men and women have different profiles of educational status during times of migration.

To evaluate cohort effects of migration patterns, the mean age at first migration were compared across the four cohorts for those whose first migration occurred after age 15. Dramatic changes in age at first move or in patterns among counts of migrations would suggest that migrations at different times were influenced by economic or political shocks rather than more normal age-patterns of migration. Only first migrations were considered largely due to the sharp decline in the sample size after the first move.

Table 6: Mean age at first migration: all ages and for those aged 15 and above at first migration

Birth cohort	mean age at first migration if aged 15 or older			mean age at first migration all ages		
	Total	*men*	*women*	*Total*	*men*	*Women*
Born before 1957	23.9	23.9	24.0	23.2	23.9	22.7
1957-1966	22.9	22.74	23.0	18.8	18.8	18.7
1967-1976	21.9	21.8	21.9	13.2	13.4	13.1
1977-1987	20.3	19.8	20.7	12.2	13.2	11.6

Graph 1 : Age at first migration for those 15, by birth cohort (both sexes combined)

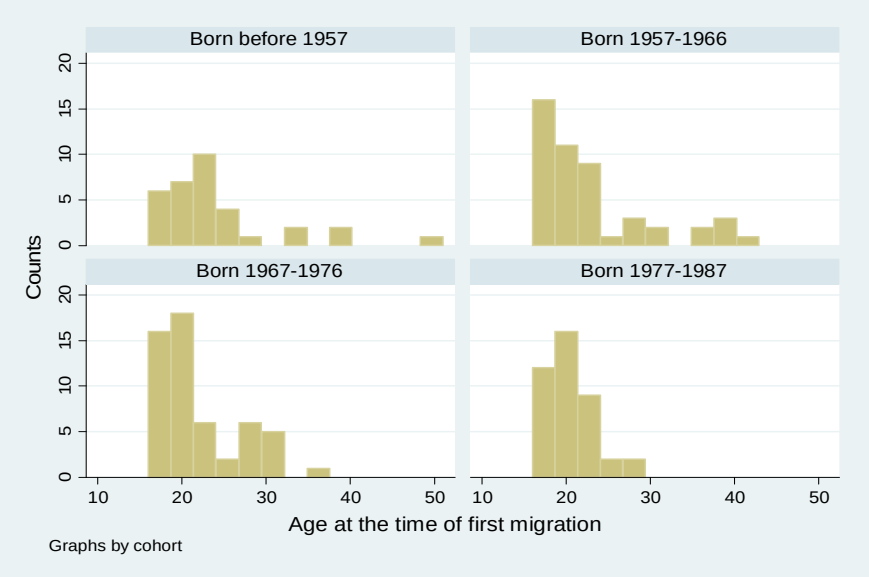


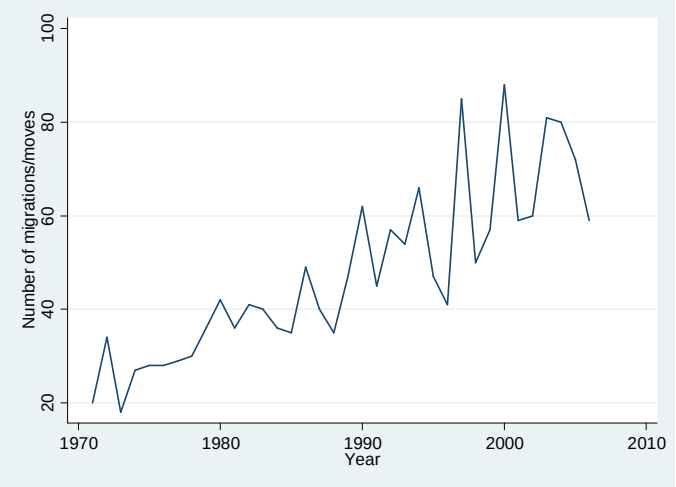
Table 6 shows a slight decrease over time in the average age of migration for both men and women, from nearly 24 years of age at first move for the oldest cohort to just over 20 for the youngest (men and women combined), when considering only those individuals who were 15

years or older at the time of their first move. However, the decrease is ages is substantial when all ages at first migration are considered, dropping from 23 years for the oldest cohort to just over 12 years for the youngest. While this may be an indication of overall increases in migration since 1967, as a greater proportion of individuals appear to have migrated as children in the younger cohorts, this could also be an indication of recall bias, as those aged 50 and above at the time of the survey may be less likely to recall, or to accurately recall, childhood migrations.

Table six also shows that age at first migration is similar for men and women across the birth cohorts. In many cases they are nearly identical, with the largest age difference between men and women appearing for the youngest cohort when considering first migration at all ages. The data here suggests that there is little age differentiation between men and women at the time of their first move, which in turn suggests similar age-patterns of migration for men and women. The histograms of age at first migration by cohort also suggest that there are similar age patterns of migration across ages, as the highest count of first migrations (over age fifteen) in all cohorts concentrated just before and at age 20, before decreasing with age.

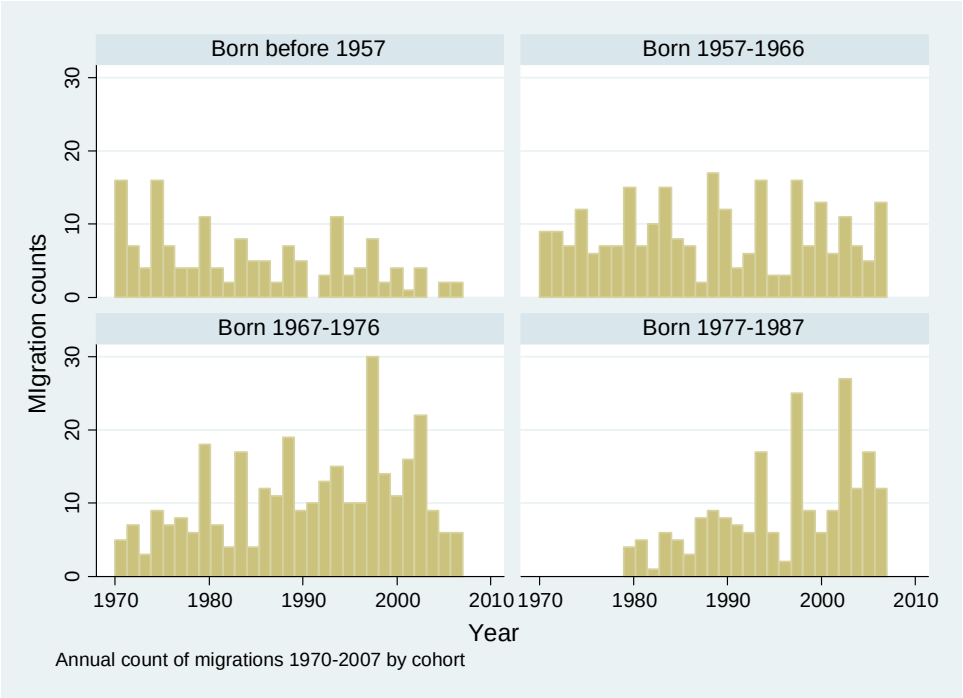
Lastly, the total count of migrations per year were graphed in order to see if there were any sharp increases or decreases in the number of migrations in during the most sever periods of economic and political crises. Here, the 1990s are the main area of interest. Although certain years during this decade saw heightened levels of conflict or more drastic economic decline, the difficulty of disentangling these effects, coupled with the fact that these "shocks" were not felt uniformly throughout the country, makes it difficult to generalize this across the population.

Graph 2: Count of migrations by year



Graph 2 seems to indicate both periods of heightened increases and decreases in annual counts of migration among the survey respondents. The late 1990s, in particular, appear to show sharp climbs and falls in annual migration counts. Given that the war is generally considered to have started sometime between 1994-1996 and that some of the fiercest years of fighting and increased levels of economic insecurity coincide with this period, this graph could be interpreted to suggest that migration levels were particularly volatile due to both the political and economic crises of the time.

Graph 3: Migration counts 1970-2007 by birth cohort



When these moves are evaluated at the cohort level, however, the numbers seem less striking. While there appears to be an increase in the number of moves during the late 1990s among the younger cohorts, we do not see corresponding spikes in the two older cohorts. If the migrations were in fact due primarily to "shocks" of war, we would expect to see a noticeable increase across all ages. We do note that the spike in 1998 is particularly high among the two youngest cohorts, which could suggest that this year saw in increase in migrations due to violence or in response to rapid economic deterioration. However, the fact that this includes less than 60 individual moves makes this purely speculative. Rather, it seems that this data hints at but does not strongly suggest that migrations in the 1990s were "shock" response migrations.

Discussion and Conclusion

While acknowledging that the sample size is too small and not adequately representative, there are nonetheless a number of interesting findings from the analysis of the migrant histories of the 389 lifetime migrants to Kinshasa interviewed in 2007. First, when we examine the geographic origins of migrants we see that the overwhelming majority of these migrants were born in cities, not in rural areas of the country as one might expect given DRC's increasingly rapid rates of urbanization in recent decades (United Nations Population Division 2011). Likewise, the majority of migrants were born in the three provinces closest to (or most easily accessible in terms of transportation) Kinshasa, suggesting that patterns of migration to the city are heavily influenced by geographic proximity.

Examination of age patterns of migration using counts of age at first migration by birth cohort show similar age patterns of first migration, with the highest count for all cohorts around age 20 for all cohorts and then declining into the 30s. The spike in migrations in 1998 is seen only for the two youngest cohorts. We also see similar patterns in terms of age at first move by gender across cohorts, with men on average only about a year older than women.

There are differences in of occupation status at each move for men and women, although we do not know if these differences are a reflection of differences at the population level for Congolese men and women or if they reflect differences in the profile of male and female migrants. However, we also see that migrants had similar education levels as did long-term Kinshasa residents at the time of survey. Whether this indicates that those with higher education levels are more likely to migrate or whether migrants become more educated after arriving in Kinshasa is unclear at this point. What is clear is that at the time of the survey, the education profiles of migrants and non-migrants were very similar.

When the counts of all migrations by all cohorts are graphed over the period of 1970-2007, a series of spikes in the 1990s, which coincide with the most volatile years of economic decline and conflict, are noticeable. However, an examination of the counts for the same period by birth cohort reveals that the same spikes are seen only for the two younger cohorts. Were migrations in this year heavily influenced by economic or conflict "shocks", we would expect to see the same level of variation (but not necessarily the same counts, as people tend to migrate less s they

get older) across all cohorts. That we do not suggests that higher counts and higher variation in migration in the late 1990s is not primarily in response to the political crises, at least not among all age groups.

Without more comprehensive data, however, we are not able to draw any statistically significant conclusions about either the migrant profiles or their propensity to migrate during times of economic or political turmoil. While the MAFE-Congo dataset provides an interesting look at the profiles of migrants to Kinshasa over the past forty years, using the dataset for analysis of internal migration is largely limited to descriptive statistics of 389 internal migrants. Unfortunately, there is little this data set or the analysis can add to the literature on migration in response to economic or political "shocks". It does, however, provide a first look at the profiles of some recent migrants to Kinshasa, a group about which we know very little. Clearly, more research on internal migration in the DRC is sorely needed and it is hoped that further research into this area will provide the data necessary to measure recent internal migration trends and patterns in the DRC.

References

Adepoju, A. (2003). "Continuity and changing configurations of migration to and from the Republic of South Africa." International Migration 41(1): 3-28.

Afolayan, A. A. (1985). "Is there a step-wise migration in Nigeria? A case study of the migrational histories of migrants in Lagos." GeoJournal 11(2): 183-193.

Bohra-Mishra, P. and D. S. Massey (2011). "Individual decisions to migrate during civil conflict." Demography 48(2): 401-424.

Brockerhoff, M. and Brennan, E. (1998). The poverty of cities in developing countries. *Population and Development Review* 24; 75-114.

Byerlee, Derek (1974). Rural-Urban Migration in Africa: Theory, Policy and Research Implications *International Migration Review* , Vol. 8, No. 4, (pp. 543-566

Caldwell, J. C. (1968). "Determinants of rural-urban migration in Ghana." Population Studies (Camb) 22(3): 361-377.

Castles, Stephen; Miller, Mark J. (1993), *The Age of Migration: International Population Movements in the Modern World*, New York: The Guilford Press.

CIA World Factbook. Democratic Republic of Congo. https://www.cia.gov/library/publications/the-world-factbook/geos/cg.html. Accessed Dec 6, 2011.

Conway, D. (1980). "Step-wise migration: toward a clarification of the mechanism." International Migration Review 14(1): 3-14.

Dufour, D. and Piperata, B. (2004), Rural-to-urban migration in Latin America: An update and thoughts on the model. American Journal of Human Biology, 16: 395–404.

International Organization for Migration, 2004. International Migration Law: glossary on migration. http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/published_docs/serial_publications/Glossary_eng.pdf. Accessed Nov 9, 2011.

Iyenda, G. (2003) Urban poverty and households' livelihoods: sociological study of strategies for development of Congolese cities [PhD dissertation]. London: Royal Holloway London.

Jokisch, B. and J. Pribilsky (2002). "The panic to leave: Economic crisis and the "new emigration" from Ecuador." International Migration 40(4): 75-101.

Massey, D. and Capoferro, C. (2006), “Salvese Quien Pueda: Structural Adjustment and Emigratio from Lima,” The Annals of the American Academy of Political and Social Science, 606(1): 116-127.

Massey, D. S. (1988). "Economic-Development and International Migration in Comparative Perspective." Population and Development Review 14(3): 383-413.

Massey, D. S. and F. G. Espana (1987). "The social process of international migration." Science 237(4816): 733-738.

Minister of Planning and Macro International, (2008). Demographic and Health Survey, Democratic Republic of Congo 2007. Calverton, Maryland, U.S.A. : Minister of Planning and Macro International.

Morrison, A. (1993). "Violence or Economics: What drives internal migration in Guatemala?" *Economic Development and Cultural Change*, 4(41): 817-831.

Morrison, A. R. and R. A. May (1994). "Escape from Terror - Violence and Migration in Postrevolutionary Guatemala." Latin American Research Review 29(2): 111-132.

Riddell, J. B. and M. E. Harvey (1972). "The urban system in the migration process: an evaluation of step-wise migration in Sierra Leone." Econ Geogr 48(3): 270-283.

Schoumaker, B., Vause S., and Mangalu, J. (2010). Political Turmoil, Economic Crisis, and International Migration in DRC Congo: Evidence from Event-History Data (1975-2007), in Demographic Responses to Economic and Environmental Crises, Kurosu, S., Bengtsson, T., and Campbell, C., eds. From *Proceedings of the IUSSP Seminar*. Presented *May 21-23, 2009, Reitaku University* Kashiwa, Japan, 2010, Reitaku University.

Schultz, T. P. (1971). "Rural-Urban Migration in Colombia." Review of Economics and Statistics 53(2): 157-163.

Shapiro, D. (1996). "Fertility decline in Kinshasa", *Population Studies*, vol. 50, no. 1: 89-103.

Shapiro, D., and Tambashe, B.O. (1998). "Ethnicity, education, and fertility transition in Kinshasa, Congo", Paper presented at the IUSSP Seminar on Reproductive Change in Sub-Saharan Africa, Nairobi

Shapiro, D., and Tambashe, B.O. (2003). *Kinshasa in Transition: Women's Education, Employment, and Fertility*. University of Chicago Press, Chicago.

Shaw, R.P. (1975). *Migration Theory and Fact*. Regional Science Research Institute, Bibliography Series No. 5.

Sjaastad, L. A. (1960). "An Investigation of the Relationship between Migration and Income in the United-States." Econometrica 28(3): 708-708.

Stanley, W. D. (1987). "Economic Migrants or Refugees from Violence - a Time-Series Analysis of Salvadoran Migration to the United-States." Latin American Research Review 22(1): 132-154.

Stark, O. and D. Levhari (1982). "On Migration and Risk in Ldcs." Economic Development and Cultural Change 31(1): 191-196.

UNDP (2011). *Statistics of the Human Development Report*, online database, consulted on November 20, 2011. (http://hdrstats.undp.org/en/countries/profiles/COD.html)

UN-HABITAT (2010). The State of African Cities 2010: Governance, Inequalities and Urban Land Markets. Available at http://www.unhabitat.org/content.asp?cid=9141&catid=7&typeid=46&subMenuId=0&AllContent=1

UN-HABITAT (2008). State of African Cities 2008: A framework for addressing urban challenges in Africa. Available at: http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=2574

UNHCR (2007). *UNHCR Statistical Yearbook 2007. Trends in Displacement, Protection and Solutions*. UNHCR, Geneva.

United Nations Population Division. Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2008 Revision* and *World Urbanization Prospects: The 2009 Revision*, http://esa.un.org/wup2009/unup/, Accessed December 12, 2011.

World Gazeteer (2011). Congo (Dem. Rep.): largest cities and towns and statistics of their population.http://worldgazetteer.com/wg.php?x=&men=gcis&lng=en&des=gamelan&srt=npan&col=abcdefghinoq&msz=1500&geo=-46 . Accessed December 7, 2011.