

**Remittances across Migrant Generations:
New Theory and Evidence from Urban Kenya**

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Abstract: Existing theories of remittance behavior assume that remitting is a first-generation phenomenon. We develop an expanded theoretical framework that draws on migrant incorporation and transnationalism research to hypothesize how the levels of and motivations for remittances change across successive generations. Using data from urban migrants in Kenya, we find that the likelihood of remitting to the rural family and the amount of support provided are sustained at high levels across generations; however, the strategies motivating these ties are quite different. The first- and 1.5-generation migrants remit as a strategy for mutual economic benefit with the origin. In contrast, those in the second generation behave more altruistically, suggesting that material ties to the origin reflect an ongoing community identity for these individuals born in the city.

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One of most important measures of migrants' ties to their origins is the financial transfers they send in the form of remittances. The value of remittances has continued to increase globally from approximately US\$2 billion in 1970 to US\$336 billion by 2007 (IMF 2011), with almost US\$40 billion currently flowing to sub-Saharan Africa each year (Ratha et al. 2011). Classical theories of remittance behavior implicitly assume that remitting is a first-generation phenomenon and do not consider how the levels of and motivations for economic support change with successive migrant generations. However, scholarship on transnationalism in the last two decades has highlighted how migrants maintain complex social and economic ties with both origin and destination over time. Therefore, even second-generation individuals, who were born and raised in the destination, could continue to have substantial economic linkages to the origin. In this paper, we expand the foundational theories of remittance behavior with insights from research on migrant incorporation and transnationalism in order to form testable predictions for how the levels of remittances and strategies motivating their distribution vary across migrant generations.

Much of the recent theorizing on migration focuses on international moves, with particular attention to Latin American-U.S. migration flows (DeWind and Holdaway 2005; Skeldon 2006). In contrast, original theories of remittance behavior were formulated and tested with respect to internal migrants in sub-Saharan Africa. We return to Africa and test our updated theoretical framework of remittances across generations of internal migrants in urban Kenya. Sub-Saharan Africa is an important context to apply this revised theoretical approach for another reason as well. Analogous to the notion of membership in two communities proposed by the transnationalism research, it has long been recognized that urban African migrants live in a "dual system;" embedded in the new urban environment while simultaneously maintaining strong ties to their rural families of origin (Cliggett 2003; Gugler 1991). Indeed, African migrants often desire to return to their rural communities to retire and be buried, despite a lifetime of urban residence (Gugler 2002; Hoddinott 1994; Owusu 2003). Yet, there is little research, particularly using quantitative data, on whether and how these origin-destination linkages have been sustained inter-generationally. Our results support the view that significant connections persist between urban migrants and the rural origin in Africa. We find that the likelihood of remitting to the family and the amount of support provided are sustained at high levels across all generations; however, the strategies motivating these ties are quite different. The initial generations remit as a strategy for mutual economic benefit with the origin. In contrast, the second generation behaves more altruistically, suggesting that material ties to the origin reflect an ongoing community identity for these individuals born in the city.

Theoretical Framework and Hypotheses

We first review and update existing theories of remittance behavior. Subsequently, we draw on migrant incorporation and transnationalism research to expand our theoretical framework regarding the level of and motivations for remitting across generations.

Theoretical Perspectives on Remittance Behavior

According to the classical and neo-classical economic models, migrants are viewed as self-interested individuals who leave their places of origin in search of new economic opportunities in the destination (Sjaastad 1962). For instance, Todaro (1969) modeled the decision to migrate from rural to urban areas primarily as a function of two dynamics, the urban-rural real income differential and the probability of an individual obtaining a job in the destination. The new economics of labor migration arose in response to this approach, and, in contrast, viewed migration as a household strategy—as opposed to a purely individual one—where both migrants and their families obtain valued resources from their ongoing connections (Katz and Stark 1986). Much of the formative research on remittance behavior, which was carried out in sub-Saharan Africa, was rooted in advancing this new perspective on migration (Johnson and Whitelaw 1974; Knowles and Anker 1981; Lucas and Stark 1985; Rempel and Lobdell 1978; Stark and Lucas 1988).

This initial research identified two main strategies to explain remittance behavior, namely, altruism and contractual arrangements. Explanations based on altruism contend that migrants send remittances to their rural households because they are concerned for the welfare of the family members they left behind, without an expectation of reciprocal support. In the African context, and among the patrilineal Luo of western Kenya, the rural extended family and its residential compound include parents, spouses, and children as well as male siblings and their families (Nyambedha et al. 2003; Ocholla-Ayayo 1976). Therefore, in the case of altruism, we hypothesize that *the presence of people whom migrants care about in the origin household, such as parents, wives, and children, will encourage them to send larger remittances, while cohabitation with a spouse and children in the destination will curtail remittances* (Menjivar et al. 1998; van Dalen et al. 2005; Vanwey 2004). Further expectations are that *migrants' resources (including their education and income) will increase remittances, while the rural household's wealth will be negatively associated with remittance flows* (Vanwey 2004). In addition, *the greater the number of migrants from the rural household, particularly migrants' brothers, the less each would need to send to the rural family on average* (Agarwal and Horowitz 2002).

The second explanation for remittance behavior conceives of migration as a “contractual arrangement” between migrants and their origin families that is entered into for mutual economic benefit. Contractual arrangements are divided into two forms: coinsurance and investment strategies. The coinsurance strategy is aimed at diversifying risk for migrants and their rural households in the shorter-term (Azam and Gubert 2006; de la Brière et al. 2002; Lucas and Stark 1985; Piotrowski 2006). Because insurance and credit markets are incomplete in many developing country settings, migrants and rural households rely on each other for material support in times of unforeseen “shocks” or hardships, such as periodic drought or crop failures in the origin and bouts of unemployment or temporary illness for migrants in the destination (Lucas and Stark 1985). The investment strategy represents attempts to smooth longer-term consumption patterns through inter-temporal, inter-generational arrangements. Here, the direction of resource flow depends on migrants' stage in the life cycle. Migrants send remittances during their productive years in the city to re-pay families for investing in their education and to secure a portion of their inheritance for support in old age (de la Brière et al.

2002; Hoddinott 1994; Lucas and Stark 1985; van Dalen et al. 2005). This strategy is particularly important in contexts where migrants expect to return home to retire and therefore have incentives to remain connected to their rural households. Such is the situation among the Luo, where most migrants hold claim to a portion of the family farm and desire to retire and be buried there (Francis and Hoddinott 1993; Hoddinott 1994; Ocholla-Ayayo 1976; Parkin 1978).

These theories lead to hypotheses about the characteristics of migrants and their rural households that would predictably increase remittances. Investment strategies are evidenced by *a positive correlation between remittances and the wealth of the rural household*, which signifies the extent of potential bequests (Lucas and Stark 1985; van Dalen et al. 2005; Vanwey 2004). Hoddinott's (1994) study supports this hypothesis, where household wealth is measured by land, the main form of inheritable asset in western Kenya. Furthermore, Hoddinott (1994) finds that *remittances increase with migrants' education and income*—which signal earlier parental investment in sons' human capital—as well as *with the number of sons (brothers of a migrant)*, as they are the competitors for a share of the parents' inheritance (de le Brière et al. 2002). In contrast, if coinsurance is operating, migrants with *lower education and income will send larger remittances* because they are more susceptible to the risk of unemployment in the destination (Piotrowski 2006). We also expect that *older migrants*, who are closer to retirement and anticipate taking a regular position in the rural home before long, *will expend greater amounts on remittances* (Gugler 2002).

While altruism as an explanation for remittance behavior expects financial transfers to increase when spouses reside in the origin, a contractual approach has little to say about marriage (Vanwey 2004). However, we argue that the traditional system of exogamous marriage that is prevalent in much of sub-Saharan Africa (and among the Luo) also represents a type of contractual arrangement between individuals and their families and kinship groups (Luke and Munshi 2006; Parkin 1978; Shipton 2007). Marriage increases the strength of ties to the patrilineage as well as the breadth of ties through the acquisition of a new affine network drawn from the kinship group of one's spouse (Ndisi 1974). The benefits of this expanded support network through marriage bring associated costs, including increased remittances to the origin family. Viewing marriage in this way, we expect that *currently married men will send larger remittances than those who are single or formerly married, regardless of whether or not men cohabit with their spouses in the destination*.

In the contemporary era, the HIV/AIDS epidemic has dramatically altered traditional patterns of income distribution and social support across Africa (Hosegood et al. 2007; Parker and Short 2009), and by extension, incentives for remitting to rural households. High urban HIV prevalence rates have produced a reverse flow of migrants who, in the absence of formal health insurance and services, depend on the rural family for physical, emotional, and financial support during their illness (Clark et al. 2007; Ntozi and Nakayiwa 1999; Schatz and Ogunmefun 2007).¹ The extended family also assumes the primary support functions for widows and orphaned children migrants leave behind after death (Drimie 2003; Nyambedha et al. 2003). We expect that, in regions with ongoing HIV/AIDS epidemics, migrants are likely to have additional incentives to enter into investment arrangements with their rural households to secure lasting assistance in the event of premature illness, death, and a legacy of dependents. Therefore, *migrants who have a greater number of dependents, including wives and children* (regardless of

their residence in the origin or destination), *will remit larger amounts*. In addition, *younger migrants*, who are at the greatest risk of HIV/AIDS (UNICEF et al. 2002), *will be as likely to remit as older migrants* who are closer to retirement age.

In sum, we are able to differentiate between altruism and contractual arrangements due to the signs on the effects of key migrant, family, and rural household characteristics within our regression models. In particular, contractual arrangements are evidenced by positive associations between the number of migrant's brothers and the amount of land owned by the rural household, while, in contrast, negative associations would indicate that individuals are driven by altruism. Furthermore, remittances sent for investment purposes should show a positive association with the existence of spouses and children regardless of their place of residence, whereas altruism would be indicated by a positive association only with those family members living in the origin.

Remittances by Generation

Regardless of their motivations, the remittance scholarship has tended to focus mainly on migrants' relationships with their sending communities. As a result, it has neglected the temporal dimensions of these transfer patterns along with important psychosocial aspects of migrants' lives at the destination that may promote or impede the level of remittances sent (Luke 2010). In particular, the research on remittance behavior fails to consider how strategies for remitting to the origin could differ across successive generations as they acculturate to their destination communities.

In contrast, a separate strain of migration research focuses on immigrant incorporation in host societies (e.g., Alba and Nee 1997; Cutler et al. 1997; Iceland and Scopilliti 2008; Logan et al. 2002; Massey et al. 1994; Massey and Denton 1988; Quillian 2002; South et al. 2005; Kim and White 2010). Within this body of work, a prominent theoretical approach is the "assimilation perspective," which examines how migrant gains in social and economic mobility are converted into increased integration in the mainstream host society. It also involves a dynamic of acculturation, which may include accumulation of time in the destination, fluency in the main language, adoption of lifestyles resembling the host population, and intermarriage with host-community residents (Iceland and Scopilliti 2008). While the process of integration via socioeconomic gains can be a short-term phenomenon for individual migrants, acculturation is likely to be a longer-term, predominantly inter-generational pursuit. However, it may take place at varying levels and degrees for different ethnic groups depending on their pace of acculturation (Alba and Nee 1997; Gratton et al. 2007; Landale and Oropesa 2007).

The assimilation perspective has been criticized for emphasizing migrants' integration into the destination and convergence toward host society values and behaviors at the expense of a consideration of ties to the origin community. Nevertheless, there is an implicit assumption that incorporation into the host society is accompanied by a waning of economic and sociocultural ties to the home family and community. Thus, in the case of remittances, we expect that *the level of financial transfers sent to the rural family will decrease over successive generations as*

the children of migrants acculturate to their destination communities and their attachments to the origin weaken.

More recent work on transnationalism challenges the one-dimensional view of the assimilation perspective by bringing in the notion of multiple memberships with respect to the origin and destination (e.g., Glick Schiller et al. 1992; Levitt 2001; Leichtman 2005; Owusu 2003; Portes 1997; Vertovec 2004). According to this perspective, transnationalism and assimilation are simultaneous processes, with the ease of assimilation dependent on the extent of these dual connections (Itzigsohn 2009:142). Nevertheless, transnationalism scholars have also come under criticism for largely overlooking the inter-generational sustenance of ties (Boyd and Yiu 2007; Somerville 2008). Some scholars continue to view transnationalism as a “one generation phenomenon” that is generally (with some exceptions) not important for children of immigrants (Portes 2001:190; Alba and Nee 2003). In contrast, other researchers argue that transnational activities and networks are transmitted to and remain important for the second generation as well (Fouon and Glick Schiller 2002; Itzigsohn 2009; Kasinitz et al. 2008; Levitt and Glick Schiller 2004; Rusinovic 2008).

Empirical research comparing how the nature and strength of transnational ties vary across generations remains limited. The few available studies suggest that while economic and political ties shape dual connections between the origin and destination among first-generation migrants, second and later generations display less active engagement with the origin, such as political participation, business linkages, and remittances. Instead, later generations tend to have greater sociocultural and emotional ties to the origin, which play a crucial role in shaping their transnational identity (Boyd and Yiu 2007; Itzigsohn 2009; Leichtman 2005; Rusinovic 2008). For example, in her work on Tongan immigrants to Australia, Lee (2007) found that despite a very strong history of material transfers, second-generation individuals seemed to be “rejecting the burden” of remittances in lieu of other forms of transnational ties, such as visits and email communication with their origin families, and maintaining their identity as Tongan. Based on these insights, we expect that *remittance levels and economically-motivated reasons for maintaining ties with (and sending remittances to) the origin will diminish across generations and will be replaced by altruistic motivations and the formation of a community identity.*

Others are less pessimistic regarding the future decline of remittances inter-generationally. For example, Vertovec (2004) argues that migrant transnationalism has been a key factor in sustaining remittance patterns. In making this claim, he highlights the role of hometown associations, money transfer institutions, and microcredit institutions as elemental. Indeed, hometown associations in the destination are hailed as one of the best examples of the widespread institutionalization of migrant social networks and are therefore unlikely to erode easily (Orozco 2005). Therefore, while it is unlikely that the second generation will maintain everyday “bifocality” (Vertovec 2004: 992), the institutionalization of associational networks will promote the continuation of younger generations’ remittance behaviors (Levitt and Glick Schiller 2004).

A parallel to the hometown association in the urban African context, and in Kenya in particular, is the ethnic or clan association. The literature highlights two main roles of these associations (Abbott 2006; Gugler 2002; Owusu 2003; Smith 2003; for the Luo see Parkin 1978). On the one

hand, clan associations provide material benefits to their members. They are created to support kinship group members in the city, keep migrants abreast of and involved in the affairs of the origin, and facilitate reciprocal arrangements, particularly the distribution of resources between the countryside and the city. On the other hand, these associations also establish an “ideology of loyalty” to and concern for the home community and help members preserve and express their kinship identity (Gugler 2002:24). Given this, we expect that *participation in a clan association in the city will increase migrants’ remittances and the effect of participation will continue to “hold sway” over those in the second generation* despite deeper roots in an urban existence (Gugler 2002:24).

Data and Methods

The Kisumu Survey

The site of our study is Kisumu, the capital of Nyanza province and the traditional home of the Luo ethnic group. It is a primary destination for many migrants seeking educational and work opportunities as well as a central town on the highway from coastal Kenya into Uganda. The high mobility and young age structure of the population is believed to have contributed to the rapid spread of HIV/AIDS in this region of Kenya (Buvé et al. 2001). HIV prevalence was estimated at 13.9 percent in Nyanza province in 2008-09 (KNBS & ICF Macro 2010). Although Kisumu attracts migrants of both sexes, we chose to focus the study on the patrilineal Luo, whose migrant sons continue to be important sources of social and economic support for rural families and communities (Luke and Munshi 2006; Luke 2010; Hoddinott 1994).

The data are based on a random sample of Luo males ages 21-45 that was surveyed in 2001. Kenyan Census Bureau enumeration areas were used as primary sampling units within Kisumu town. Of these, 121 were randomly chosen for the survey, and all households in each enumeration area were selected. In each household, all males of eligible age were interviewed. Data quality was of paramount importance to the project, and the research team took multiple steps to ensure the validity and reliability of reporting. These measures included re-interviewing four percent of the sample to confirm the reliability of responses with respect to marriage and migration. Careful attention placed on data quality resulted in a high response rate (96 percent) and very accurate reporting (Luke 2005).

For the analysis, we divided respondents into three generations: the “first generation” included those who migrated to Kisumu in their adult years, age 21 and above (N=907). We designated those who came to Kisumu after birth and at age 20 or younger as “1.5-generation” migrants (N=1199).² Those born in Kisumu are designated the “second generation” (N=317). Of these, approximately one-half had a father also born in Kisumu, and they are technically third-generation migrants or higher. Because we could not distinguish the actual generation of their residence in Kisumu, and the sample size was small, we collapsed all second- and higher-generation respondents into one category. In addition, we limited the first- and 1.5-generation migrants to those who came to Kisumu at least 12 months prior to the survey, so they had the opportunity to send remittances over the previous year.

With respect to remittances, each respondent was asked to estimate the total value of money and gifts that he gave or sent to his rural family in the last year, which referred to his household or compound of origin. Respondents estimated the monetary value of remittances; the survey did not discern the particular individuals or purposes for which these resources were sent. We created a dichotomous variable for whether or not a respondent remitted in the last year and a variable for the amount of remittances sent.

Individual characteristics included age, years of education, income in the last year, and income squared. The variables for marital and cohabitation status stemmed from the full marital histories collected from respondents, including information on how many months of the last year they cohabited in Kisumu with their current wives. We constructed three dummy variables designating men as currently single (single, divorced, separated, or widowed); currently married and cohabited eight or more months of the last year in Kisumu (which we term “spouse in destination”); and currently married and cohabited less than 8 months in the last year (“spouse in origin”).³ The great majority of married men cohabited at least part of the year in Kisumu; therefore, we attempted to distinguish between those whose cohabitation experience was essentially continuous from those who cohabited intermittently.⁴ Respondents’ participation in clan association meetings in Kisumu was designated as ever attending versus never.⁵

Respondents were asked the number of surviving children they had and how many of these were currently living with them in Kisumu. The remaining number of children we designated as living in the origin. Each respondent was also asked the survival status of his mother and father. The data did not allow us to determine the precise household of residence for non-cohabitating wives, children, and parents; however, we assumed they lived in the rural household. This assumption is quite credible for the Luo in this area of Kenya, where exogamous marriage and patrilocal residence rules oblige wives to relocate to their husbands’ family compound upon marriage, and those not cohabitating with husbands in Kisumu are very likely to be overseeing the rural homestead (Francis and Hoddinott 1993; Parkin 1978). In addition, children often remain in the rural home with their mothers or are cared for by the extended family within the origin compound (Nyambedha et al. 2003). Parents are likely to retire in the origin as well.

Among the Luo, inheritance is passed down from fathers to sons. Therefore, in order to determine competition for bequests, we included a variable for the respondent’s number of brothers. Respondents were also asked the number of individuals in their household in Kisumu, which served as a measure of additional financial obligation on the part of migrants. To account for rural household characteristics, we included a variable for household wealth in the form of acres of land owned and a variable for the Euclidean (straight-line) distance from the center of the origin administrative location to Kisumu.

Analytic Methods

The analysis is divided into several parts. First, we provide descriptive statistics for the three generations of urban men and the prevalence and level of remittances to the rural origin across generations. Second, we examine the association between generation and the level of family remittances using tobit regression analysis and controlling for individual, family, and rural

household characteristics. Third, in order to investigate varying strategies for remitting across generations, we examine the associations between the explanatory variables and the level of remittances using tobit regression analysis separately for each generation.⁶

Results

Descriptive Statistics

We begin by describing the sample of Luo males in Kisumu and the flows of financial resources they provide their origin families. Overall, the summary statistics in Table 1 describe a young and relatively educated male population that is likely to be found in many urban settings across sub-Saharan Africa. A great majority of the men were currently working, with mean incomes in the last year ranging from approximately US\$760 among the second generation to US\$985 for first-generation men.⁷

The majority of men were married, and many lived with a spouse in Kisumu for most of the last year. The first-generation migrants were most likely to be married and have spouses living in the origin. A large proportion of each generation attended clan association meetings in Kisumu. Interestingly, over one-half of the second generation did, signaling their continuing engagement with their community of origin despite being born in the destination.

On average, respondents had approximately one child co-residing in Kisumu and one in the origin. Approximately one half had surviving fathers, and three quarters had surviving mothers. Men had four brothers on average, signaling larger family sizes in the previous generation (Luke and Munshi 2006). Men's rural households owned about seven to eight acres of land on average, and their home communities were located about 30 miles from the city, which could entail a lengthy journey over poor roads in this area of the country. Rural communities were approximately 19 miles on average from Kisumu for the second generation.

Statistics on remittance flows to origin families are presented in Table 2. A large proportion of all three categories of men remitted to their rural families in the last year—93 percent of first-generation, 86 percent of 1.5-generation, and 84 percent of second-generation men—suggesting that remitting is indeed normative behavior in Kisumu. Hoddinott's study (1994) from two rural Luo locations in Nyanza province recorded a similar prevalence of remitting for migrants in 1988. However, based on analysis of variance, we found a significant decline in the proportion remitting over the three generations. Of those who remitted in the last year, the average amount ranged from approximately US\$240 among the first generation to \$180 among the second generation. Although there is a slight decline in the level of remittances across generations, of those who remit, the proportion of their incomes devoted to the rural family (approximately 23 percent) remained steady across generations. These figures compare to previous studies of remitting by internal migrants in sub-Saharan Africa, which found that six to 30 percent of migrants' incomes are devoted to remittances (Findley 1997; Hoddinott 1994; Johnson and Whitelaw 1974; Stark and Lucas 1988).

Regression Analyses

Determinants of remittances for the full sample: The descriptive results above suggest that the level of remittances declined across generations, with the second generation sending the smallest amounts to their rural families. This seemingly supports the notion that economic ties to the origin weakened across generations as envisioned by both the assimilation and transnationalism perspectives. Nevertheless, the significant differences found in the bivariate analysis could be due to differences in individual characteristics. For example, the reason second-generation men sent smaller financial transfers could be because these individuals were less likely to be working and earning high incomes. Therefore, we further examined the amount remitted to the rural family across generations by controlling for individual, family, and rural household characteristics using tobit regression analysis. The results are presented in Table 3.

We found no significant difference in the amount of remittances sent to the rural family in the last year between first- and second-generation men. However, 1.5-generation migrants sent significantly larger amounts of remittances than those of the second generation. There was no difference in levels of remittances for migrants of the first and 1.5 generation (not shown).⁸ We also found in the bivariate analysis in Table 2 that, although the propensity to remit was very high, this likelihood nevertheless declined across generations. We subjected this result to further scrutiny by running a logit analysis of the likelihood of remitting to the family in the last year by generation, controlling for the same characteristics in Table 3 (not shown). Interestingly, we found no significant differences across generations. Overall, it appears that the propensity to remit and the amount sent did not decrease across generations, particularly between the first and second generations.

The results in Table 3 also illuminate the important strategies behind remittance behavior across the full sample. We found no significant differences between age or level of education and the amount of remittances to the rural origin. In the present context of HIV/AIDS and lowered life expectancy in this region of Kenya, we expected that younger individuals would have investment incentives to remit similar to older ones who were closer to retirement, and this appeared to be the case.⁹ We found that the linear effect of income was positive and significant, and the coefficient on the quadratic term was negative and significant, implying that the income effect declined at the margin. Although this result could denote feelings of altruism for or an investment arrangement with the rural family, Hoddinott (1994) argues that the declining marginal effect of income reflects an investment arrangement, where migrants with higher earnings gain less from potential parental bequests.

Marital status was an important determinant of remittance behavior. Currently single men (the reference category) sent significantly smaller amounts to their rural families than men with wives in the destination and men with wives in the origin. A separate analysis showed that there was no significant difference between the two categories of married men (not shown). Taken together, these results indicate that it is not the residence of the spouse that matters for family remittances, but the marriage institution more broadly. This supports the previous assertion that exogamous marriage is a contractual arrangement between men and their families that is accompanied by increased financial obligations. Additionally, we found that attending clan

association meetings in the city increased remittances levels (marginally significant), as expected.

With respect to family characteristics, remittances increased significantly with each additional child residing in and outside of Kisumu. The finding that remittances increased with the number of children regardless of their residence is evidence of an investment strategy. There were no significant associations between surviving parents and remittances to the rural family. Remittances also decreased with the number of household members in Kisumu, which indicates that these obligations in the city curtail migrants' ability to remit to the origin. In addition, the larger the number of brothers an individual had, the lower the amount sent to the rural family (marginally significant), which implies altruism as a motivation for remittances.

With respect to the rural household's characteristics, the amount of land owned displayed a positive and marginally significant association with the level of material resources remitted, providing evidence of an investment arrangement. The distance of the rural household from the destination showed a negative and significant association with remittances; perhaps longer distances mean less frequent visits and communication, and therefore ties to the rural household weaken. In sum, across all men in our sample, the hypothesized relationships for a long-term investment arrangement with the rural household held up most consistently, as seen in the significant positive effects of income, spouses and children in the destination, and land owned by the rural household and the insignificant effect of age on the level of remittances.

Determinants of remittances by generation: While the propensity to remit and the level of transfers did not vary considerably across generations, the strategies behind these behaviors could be quite different. Table 4 presents separate regressions for the determinants of remittances to the rural family for each generation.

With respect to first-generation migrants, the linear and quadratic effects of income were significant and age was not, as for the full sample. We also found that married migrants—regardless of the place of residence of the spouse—sent larger remittances compared to single migrants, indicating an investment strategy. Migrants appear to exhibit altruistic behavior in the finding of a large and significantly positive association between remittances and the number of children living in the origin but *not* the number living in the city. An additional interpretation of this result could also be that migrants compensate rural households for supporting their dependents in the origin.

Finally, there was a positive and significant association between the amount of land owned by the rural household and level of remittances, providing evidence of an investment arrangement. Distance was also negatively and significantly associated with the amount of remittances sent in the last year. In sum, first-generation migrants appeared to remit due to contractual arrangements, as seen in the expected effects of age, marriage, and land owned by the rural household, and also due to altruism for children living in the origin.

We found that the strategies supporting remittance levels for 1.5-generation migrants were similar to first-generation migrants in several ways. The findings for age, income, marriage, and the number of children living in the rural home were roughly similar in magnitude and

significance. However, education was negatively associated with the level of remittances for the 1.5 generation, indicating a coinsurance strategy. Also, those who belong to clan associations in the city and who have surviving mothers were marginally significantly more likely to send remittances to their rural families than those who did not belong to associations or whose mothers were deceased. In addition, there was no significant association between the amount of land owned by the rural household and the level of remittances. Finally, distance to the rural home continued to have a negative association with remittances (now marginally significant), as it did for first-generation migrants. Overall, for the 1.5 generation, investment arrangements with rural families appear to have somewhat decreased compared to the first generation, especially seen in the insignificant effect of land owned by the rural household. In contrast, 1.5-generation migrants exhibited greater altruistic motivations, as seen in the significant associations with clan association participation, children living in the origin, and surviving mothers.

The results for the second generation contrasted in many ways from the other two generations. There was a similarity in the effects of age, income, and also in the tendency of married men with spouses in the origin to remit larger amounts than single men (marginally significant). Further analysis found that these married men also sent significantly greater amounts than married men with wives in the destination (not shown). Thus, in contrast to the first and 1.5 generations—where marriage was a key factor associated with remittances and all married men sent larger amounts than single men—among the second generation, the residence of the spouse mattered. Here, married men with spouses residing in the origin sent the largest remittances, which signals altruism on the part of the second generation rather than a contractual interpretation of marriage.

Additional findings support the notion that second-generation individuals remit due to altruistic motivations. We found that this generation remitted significantly larger amounts to the rural family if they had a surviving mother and the amount of land owned by the rural household increased. The coefficients for land owned by the rural household varied significantly across all three generations. In addition, there was a significant and positive effect of clan association participation on the amount of remittances, which could reflect this generation's particular identity or solidarity with the origin. This effect was distinct in magnitude and significance between the second generation and the first. In addition, remittances decreased significantly the more brothers the second-generation men had (marginally significant), the sign of which was opposite to what we would expect for an investment strategy. We also see that family remittances decreased significantly with larger numbers of individuals in the urban household (marginally significant), suggesting that competing claims on men's resources decreased the amount men expended on rural families.

Finally, distance to the origin had a negative and significant association with the level of remittances. Indeed, distance decreased the amount of resources sent to the rural family for all generations; however, this effect was largest among the second generation born in the city. This might be explained by the forces of migrant incorporation in the destination, where physical distance restricts contact with the origin, and this effect strengthens over subsequent generations.

We also note that many studies of remittances behavior include a measure of the months or years spent in the destination to examine assimilation over time. Given that the second-generation men in our sample were born in Kisumu, we did not include this variable in our regressions. However, when we controlled for the number of years since the first- and 1.5-generation men migrated to Kisumu in further analysis, it was not significantly associated with the level of remittances for either generation (not shown). In addition, inclusion of this variable did not appreciably change the magnitude and significance of the other results. These findings suggest that distance, but not time, weaken urban African migrants' ties to the origin.

Conclusion

In this paper, we attempted to stretch the boundaries of established thinking about migrant remittances by introducing an inter-generational perspective. Drawing on recent transnationalism research, we expanded existing theories of remittance behavior to predict how strategies for remitting vary across generations, and we tested our hypotheses among urban migrants in western Kenya. To our knowledge, this is the first quantitative study to compare the extent of economic ties as well as changing motivations behind remittance behavior between migrants and children of migrants. We demonstrated that theories of transnationalism formulated for the international context can be meaningfully transported to shed light on the multi-sited and multi-generational connections of internal migrants in sub-Saharan Africa.

Contrary to the assumption that remitting is a first-generation phenomenon, we found that those in the first, 1.5, and second generations displayed an extremely high propensity to remit, around 85 percent in the last year. Further, over 20 percent of individuals' earnings were devoted to remittances, and the second generation maintained levels no different than the first generation. Our findings support the view that urban African migrants of all generations straddle their identity within the "dual system" of origin and destination and, through this process, actively maintain strong ties with their rural families.

While all generations retained financial linkages to their rural families, the motivations for remittances varied from one generation to another. Traditional theories outline two main strategies for remitting, namely altruism for and contractual arrangements with rural households. Overall, we found that the hypothesized relationships for a long-term investment arrangement (one type of contractual strategy) dominated amongst the first-generation migrants. These economic motivations decreased across generations, particularly among the second generation. The strongest evidence of this was a significant change in the effects of two variables across generations: cohabitation with spouses in the destination and the amount of land owned by the rural household. Among first-generation migrants, the magnitude, direction, and significance of these effects signaled contractual arrangements with rural kin, while for the second generation the effects switched to an altruistic interpretation.

The presence of investment arrangements concentrated among the first and 1.5 generations suggests that migration continues to be employed as a mutually beneficial economic strategy for these urban migrants and their rural households. While these results echo findings from much earlier remittance research in sub-Saharan Africa, the consequences of the HIV/AIDS epidemic

and continued socio-political insecurity across the continent are likely to provide added incentives to remain connected to rural households today. Interestingly, within the same context, the motivations of second-generation men displayed less of an investment strategy, as predicted by the transnationalism perspective. It could be that a higher degree of incorporation for this generation is accompanied by the formation of substitute support networks in the destination, which these individuals can tap into in times of economic or other hardships. Thus, given a reduced dependence on the origin community for investment purposes, second-generation remittances are instead driven by loyalty and a concern for the welfare of individuals in the rural household.

Finally, a key finding was the role of clan associations in maintaining ties to the origin. Considerable percentages of each generation attended clan association meetings in the destination, with the largest percentage—over 50 percent—among the second generation. More pertinently, involvement in clan associations had a positive and significant effect on remittances among the second generation in contrast to the first generation. What compels second-generation clan association members to remit? One explanation could be that these institutions are themselves valuable networks that provide information and assistance in the destination and thus substitute for rural family support, as noted above. In turn, members are required—implicitly or explicitly—to continue remitting to their rural kin in order to reap the benefits of the clan association (Roberts and Morris 2003). An alternative interpretation of this effect is that participation in these associations strengthens origin community identity in subsequent generations, thereby fueling altruistic motivations for sending remittances to the origin. Unfortunately, our data were limited to a simple dichotomous measure of clan association participation that did not allow us to interpret its effects distinctly as a form of economic self-interest or the dynamics of identity formation or a combination of the two. Future research, particularly in-depth qualitative investigations, could help illuminate the multiple meanings of clan associations in Africa and their influence on remittance behavior across multiple migrant generations.

Beyond theoretical contributions, the empirical findings of our study are immensely encouraging for scholars and policy makers concerned with the developmental potential of migration. A wealth of research finds that remittances from urban migrants are vital to the economic stability of origin communities in sub-Saharan Africa as elsewhere, including poverty reduction and improvements in health and education outcomes (e.g., Ratha et al. 2011; Wouterse 2010). Our findings with regard to the sustenance of remittances inter-generationally, especially among the second generation, suggest that economic development and welfare on the continent will continue to be supported by these essential financial flows.

Endnotes

- ¹ The area in and around Kisumu did not have free and easy access to anti-retroviral treatment at the time of the study in 2001 and continues to have limited access today.
- ² The results were robust to cutoffs between first- and 1.5-generation migrants at ages 17 through 22, although some of the associations lost significance in some of the regressions.
- ³ The results were robust to cutoffs for cohabitation in Kisumu at six and seven months, although some of the associations lost significance in some of the regressions.
- ⁴ Of the married men, 6.2 percent were currently polygynous and could have cohabitated in Kisumu with more than one wife at a time or consecutively. To calculate months of cohabitation, we added the number of months these respondents cohabitated with any wife.
- ⁵ In addition to attendance at clan association meetings, the survey also collected information on whether or not the respondents contributed funds to these associations. The two measures are highly correlated ($r=0.93$), likely because participation requires monetary contributions. Results were robust to inclusion of either variable.
- ⁶ Because a proportion of migrants do not remit to the family, the dependent variable for the amount of remittances is left censored. In this case, use of tobit estimation is appropriate.
- ⁷ 70 Kenyan shillings was the equivalent of US\$1 at the time of the survey.
- ⁸ These and all subsequent results not shown are available from the authors on request.
- ⁹ In our sample, the oldest men were age 45 at the time of interview. Thus, we could not explore how the level of remittances differed for much older men who remained in the destination.

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Table 1. Summary statistics by generation

	Mean or %			Significance
	1st generation	1.5 generation	2nd generation	
Individual characteristics				
Age (years)	32.2	26.2	27.8	***
Education (years)	9.9	9.9	10.0	
Currently working (%)	93.6	86.3	87.4	***
Income in the last year (Ksh)	69,022.0	53,775.7	53,034.4	***
Current marital status (%)				
Single (never married, div., sep., widowed)	23.5	46.4	49.4	***
Married and spouse in origin	20.4	11.6	5.4	***
Married and spouse in destination	56.1	42.0	45.3	***
Attends clan association meetings (%)	48.0	39.0	52.2	***
Family characteristics				
Number of children in HH in Kisumu	1.3	0.8	1.0	***
Number of children outside Kisumu	1.4	0.6	0.8	***
Father surviving (%)	47.2	57.1	56.0	***
Mother surviving (%)	71.6	78.2	75.8	**
Number of brothers	4.2	4.0	4.4	
Number of individuals in HH in Kisumu	3.9	3.7	4.3	**
Rural household characteristics				
Land owned (acres)	8.0	7.5	6.7	
Distance to Kisumu (miles)	29.5	27.9	18.7	***
N	907	1199	317	

Note: ***p<0.001; **p<0.01; *p<0.05; +p<=0.10; oneway ANOVA

Source: Survey of Urban Life Project, 2001

Table 2. Remittances to the family in the last year, by generation

	Mean or %			Sig.
	1st generation	1.5 generation	2nd generation	
Remitted to family (%)	92.6	85.7	84.3	***
Of those who remitted				
Amount remitted (Ksh)	16,582.9	14,090.2	12,654.6	**
Remittances as percent of income	22.8	23.5	23.1	
N	907	1199	317	

Note: ***p<0.001; **p<0.01; *p<0.05; +p<=0.10; oneway ANOVA

Source: As for Table 1.

Table 3. Tobit regression analysis of the determinants of remittances to the family

	Coef.	SE	
Generation			
Second generation (ref)	--	--	
First generation	1551.2	1318.8	
1.5-generation	2434.2	1236.9	*
Individual characteristics			
Age (years)	18.1	92.7	
Education (years)	-246.0	159.8	
Income (Ksh)/1000	168.1	7.9	***
Income (Ksh) squared	-0.0001	0.000004	***
Current marital status			
Single (ref)	--	--	
Married and spouse in origin	6248.9	1359.9	***
Married and spouse in destination	6798.9	1068.9	***
Attends clan association meetings	1414.3	806.6	+
Family characteristics			
Number of children in HH in Kisumu	902.5	428.3	*
Number of children outside Kisumu	961.0	285.9	**
Number of individuals in HH in Kisumu	-416.8	199.2	*
Father surviving	680.3	814.9	
Mother surviving	1413.2	915.3	
Number of brothers	-233.7	122.2	+
Rural household characteristics			
Land owned (acres)	46.2	27.7	+
Distance from Kisumu (miles)	-100.0	29.1	**
Constant	-968.8	3145.8	
N	2427		

Note: ***p<0.001; **p<0.01; *p<0.05; +p<=0.10

Source: As for Table 1.

Table 4. Tobit regression analysis of the determinants of remittances to the family, by generation

	1st generation			1.5 generation			2nd generation		Sig. 1st-- 1.5	Sig. 1st-- 2nd	Sig. 1.5-- 2nd
	Coef.	SE		Coef.	SE		Coef.	SE			
Individual characteristics											
Age (years)	-23.5	139.5		-39.6	142.1		157.5	238.5			
Education (years)	-122.5	255.2		-451.2	229.6	*	-229.6	442.7			
Income (Ksh)/1000	249.7	19.5	***	215.8	12.4	***	197.8	32.5	***		
Income (Ksh) squared	-0.0003	0.00004	***	-0.0001	0.000005	***	-0.0002	0.0001	**	***	**
Current marital status											
Single (ref)	--	--		--	--		--	--			
Married and spouse in origin	4789.3	2230.8	*	6810.5	1889.7	***	7831.7	4648.9	+		
Married and spouse in destination	5731.0	1898.4	**	7816.7	1438.7	***	-75.0	2769.4		+	*
Attends clan association meetings	-590.7	1309.4		1921.9	1120.8	+	4631.7	2282.2	*	+	
Family characteristics											
Number of children in HH in Kisumu	261.6	713.6		905.7	630.3		650.4	1095.4			
Number of children outside Kisumu	1041.7	420.1	*	980.0	630.3	*	756.6	666.8			
Number of individuals in HH in Kisumu	109.5	405.5		-408.1	266.0		-737.7	418.4	+		
Father surviving	1536.0	1327.3		149.1	1114.4		523.1	2345.4			
Mother surviving	-410.4	1427.0		2547.9	1302.7	+	4506.4	2587.2	+		
Number of brothers	-68.6	212.4		-271.2	171.8		-484.8	288.0	+		*
Rural household characteristics											
Land owned (acres)	97.4	48.7	*	24.0	35.6		-202.5	94.4	*	+	**
Distance from Kisumu (miles)	-94.0	47.1	*	-76.6	41.1	+	-258.5	78.9	**		+
Constant	-2149.2	5046.8		890.1	4299.3		1098.7	7799.7			
N	907			1199			317				

Note: ***p<0.001; **p<0.01; *p<0.05; p<=0.10

Source: As for Table 1.

