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Spatial and Temporal Dimensions of Migration on Union Dissolution

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Abstract

This investigation uses data from Nicaragua to evaluate the temporal and geographic influences of migration on union dissolution. We investigate the impact of three migration types: internal (within Nicaragua), South-South international (to Costa Rica), and South-North international (to the United States). We perform event history analyses using data from the Latin American Migration Project (LAMP) to test whether longer migrations (time) and migration to international and more distant locations (place), and the combination of these two factors, is associated with increased rate of union dissolution among return migrants. Results suggest that total migration duration and internal migration (relative to non-migration) are associated with an increased rate of union dissolution. Moreover, a longer duration of migration to any one of the three destinations increases this rate. In order to understand the familial risks associated with migration, then, we must consider both the time and place associated with the migration event.

Keywords

Union dissolution; South-North Migration; South-South Migration; Nicaragua

INTRODUCTION

In many parts of the world, is it common for young people—typically men—to migrate temporarily for work in order to support themselves and their family (Rodriguez and Tiongson 2001, Williams 2009, Yabiku, Agadjanian et al. 2010, Kerstin and S. 2011). This time spent apart may take a toll on these men's marriages, and this toll may increase with increased migration duration, and/or with migration to more distant and unfamiliar places (Goldstein and Goldstein 1983, Stephen and Bean 1992). In this paper, we investigate how voluntary spousal separation due to migration might impact union dissolution. We focus not only on overall migration experience of young men who return home after a migration, but also on the spatial and temporal characteristics of their migration experiences. In doing so,

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this study elaborates on existing literature in the areas of migration and union dissolution (Mincer 1978, Landale and Ogena 1995, Frank and Wildsmith 2005), providing insight into how migration can impact the family, and how choices about migrating for work might negatively impact marital trajectories.

Our study focuses on couples based in Nicaragua, where out-migration is prevalent and many families are affected by the absence of their young men (Macours and Vakis 2010). Specifically, we focus on the impact that migration of male Nicaraguans (1) within Nicaragua, (2) to Costa Rica, and (3) to the United States has on the stability of migrants' romantic unions. In doing so, we examine influences of internal domestic migration, as well as two types of international migration: South-South and South-North migration. This approach allows us to investigate one of the most common migration streams in North America: migration from Central America to the United States (Castles, Miller et al. 2005).

We use data from the Latin American Migration Project (LAMP) that includes detailed information on both migration experience and union histories. Our analysis focuses on couples in which the men returned home after their migration, reducing possible selection bias of migrants who had not intended to return from the start. These data allow us to investigate the flow of migrants to a variety of destinations that are rarely exhibited in other data collections, offering the opportunity to study how different types of migration can have different influences on the migrants and their marital outcomes.

BACKGROUND

Nicaraguan migration patterns

While Nicaragua uniquely supports relatively high levels of female internal and international migration (Garcia et al. 2002), due to the sampling approach used in LAMP—described in more detail below—we focus on the association between male migration and union dissolution.

Internal migration

Nicaragua makes for a compelling migration story primarily for its uniquely diverse migration dynamics. Similar to most countries around the world, Nicaragua has a strong internal migration network that is dominated by rural-urban migration (Europea 2013). There is also a steady internal rural-rural migration stream that supplies seasonal labor to the agriculture industry (e.g., coffee, sugar, other export crops) (Macours and Vakis 2010). Between 2.5 and 4 percent of Nicaraguans migrate domestically each year (CEPAL 2008).

Nicaraguan households have a diversity of economic migration options, including rural internal seasonal migration during the cropping season and more seasonably stable migration to larger cities such as Managua. The costs and physical barriers to internal migration are relatively low. Even the most remote Nicaraguans on the southeast coast can reach Managua by inexpensive ground transportation within about 24 hours. However, the economic gains for unskilled rural workers migrating to urban areas are low (Corral and Reardon 2001).

International migration

Nicaragua exhibits vibrant international migration streams. About 6 percent of Nicaraguans migrate internationally each year, and the large majority of those international migrations are split between two major South-North and South-South destinations: The United States and Costa Rica. Just over half of international migrants are male (Europea 2013). Like many internal migrants, many international migrants to Costa Rica migrate for seasonal work and the expectation of improved incomes in the short-term (Macours and Vakis 2010). Migrants to the United States tend to be more affluent and educated compared with their Costa Rican migrant counterparts (Hobbs and Jameson (2012). Because the large majority of international migrants are destined for either Costa Rica (55%) or the United States (36%) (Hobbs and Jameson 2012), we focus our investigation on these two international migration streams.

For Nicaraguan households contemplating international migration, the benefits and costs of a Costa Rican versus U.S. migration are divergent on a number of scales. These include differences in distance, the cost and physical risk of back and forth travel, language barriers, historic social ties, and potential monetary rewards. These differences become more acute when migrants do not hold legal documents to enter their preferred destination. Migration to Costa Rica tends to be easier and lower cost: A Nicaraguan can travel by bus to the Costa Rican border in about a day, at most, for relatively little money and with little fear of physical harm (IOM 2001, Garcia, Barahona et al. 2002). Moreover, Costa Rica shares a common official language (Spanish), ancestry and geography with Nicaragua.

In contrast, Nicaraguans travelling to the United States without appropriate legal documents can face a great deal of expense and danger. It costs the average Nicaraguan over a year's wages to be transported from the Guatemalan border to the United States by a *coyote* (human smuggler) (United Nations Office on Drugs and Crime (UNODC) 2010). Additionally, undocumented migrants to the United States face risks associated with predation by Mexican criminal organizations and unscrupulous law enforcement officers, and the need to cross into the United States at precarious locations (Cornelius 2001, Sundberg and Kaserman 2007). Moreover, Nicaraguan migrants may be delayed in finding gainful employment due to a lack of familiarity with local customs and language. Yet, despite these risks and costs, the economic advantages of migration to the United States, relative to Costa Rica, can make this a desirable option: per capita international purchasing power of U.S. residents is 13 times higher than in Nicaragua, compared with a five-fold difference between Costa Rica and Nicaragua (Razavi 2011).

Focusing on these two international migration destinations will provide important insight into whether these two different categories of costs, risks, and benefits to migrants might differentially impact their odds of experiencing marital breakdown.

Unions and union dissolution in Nicaragua

Marriages and unions—Although the age at first union has been increasing in Nicaragua (Goode 1993), Nicaraguans enter their first union at relatively young ages. The most recent Demographic and Health Survey data from Nicaragua indicates that median age at first

marriage for women in 2001 was approximately 18 (INEC 2002). Consensual unions have long been common in Central America and have increased in prevalence over time (Martin 2002). Within the LAMP dataset, nearly one in four unions is a consensual union rather than a formal marriage. These consensual unions are common for a number of reasons, including their greater affordability than formal marriages, as well as their greater flexibility in committing to a partner (Goode 1993, Martin 2002). Consensual unions tend to be more common among younger cohorts and among people living in rural areas (Martin 2002).

Consensual unions are similar to formal marriages in many ways: partners live together, they exhibit similar fertility levels, and many of them exhibit durations/stability similar to formal marriages (Goode 1993, Martin 2002). Their distinguishing factor is that they are not recognized through religious or civil means. However, in both types of unions, the partners are dependent on one-another for emotional and economic support, and they thus function similar to formal marriages. In fact, in the remainder of this paper, we often refer to partners of these unions as *spouses* and discuss consensual unions and formal marriages interchangeably due to their similarities.

Union dissolution—If we were to exclude consensual unions from our investigation, we would underestimate union dissolution (Goode 1993). Not surprisingly, consensual unions exhibit greater dissolution rates than formal marriages (Goode 1993, Martin 2002). Some of this is likely selective of people less willing to commit to marriage and preferring the relative ease of dissolution of consensual unions. In fact, in Latin America, in the past, people may have selected into consensual unions to avoid the permanence of formal marriages, as legal divorce was difficult to obtain (Goode 1993).

The 2001 Nicaragua DHS survey indicates that 16.5 percent of women aged 15 to 49 were divorced or separated at the time (INEC 2002). In order to get an impression of how Nicaraguan divorce compares to other countries, it is helpful to look at crude divorce rates (CDR). The most recent CDR estimates from the United Nations reveal a similar picture in Nicaragua (CDR of 0.8 in 2005) to most other countries in Central America, such as Mexico (CDR of 0.7 in 2005) and Panama (CDR of 0.9 in 2005) (United Nations 2009), but the rate is lower than neighbouring Costa Rica (CDR of 2.3 in 2005). The CDR in the United States, where the rate of divorce has long been one of the highest in the world (Cherlin 2010), was 3.6 in 2005 (United Nations 2009).

CONCEPTUAL FRAMEWORK

Both the duration and destination of migration may affect the stability of the migrant's romantic union. In this section, we discuss how each of these factors may independently contribute to union breakdown and, then, how the combination of these factors may lead to union dissolution. We frame the conceptual framework around return migration, keeping in mind that migration is often cyclical. Hence, even if a migrant returned, they are likely to subsequently migrate again (Massey, Aysa-Lastra et al. 2011).

Migration duration

Men who migrate for temporary work without their wives may experience the disintegration of that partnership, no matter the migrant destination. These migrants have fewer opportunities to be physically intimate with their spouse while apart, and the reduced frequency of contact may reduce their emotional closeness (Stafford and Merolla 2007), with the effects possibly lasting even after spouses reunite. Moreover, with time spent apart, spouses have opportunity to meet a new, geographically proximate romantic partner. In fact, the long-term absence of partners has been found to lead to infidelity (Dreby 2006, Clark, Glick et al. 2009, Abrego 2014).

On the other hand, longer duration of migration may contribute to union stability. If a migrant extends his stay in the destination location, this may be because he is experiencing economic success. A successful migration can enhance the family's well-being, which may suppress odds of dissolution (Yeung and Hofferth 1998). Migration success may increase the dependence of wives on their husbands, as well as wives' desire to maintain the relationship in order to maintain the new quality of life that the remittances provide her (Clark, Glick et al. 2009). In fact, Stephen and Bean (1992) posit that the stressors to the family are temporary at the beginning of a migration, and the effects will smooth out over time. If a migrant is successful, this can have lasting positive effects on union stability.

Migration destination

In addition to the migration duration, the distance, geographic, and political factors associated with the destination location can influence couples' odds of marital dissolution. For Nicaragua's distinct migration streams (South-North to the United States, South-South to Costa Rica and internal), a number of factors may influence the toll on romantic relationships, including the risks and costs, and the ease with which a migrant can regularly return home.

Migrants who do not cross national borders face relatively low risks and costs, and they can return home with relative ease. However, international migrants face risks associated with crossing national borders, and they also face greater barriers to maintaining regular contact with their families back home. In addition to more costly return trips home, many poor and rural Nicaraguan households/individuals do not have regular phone or internet service, thus making regular contact with international migrants difficult (Lee 2010). These factors may add up to take a toll on the romantic unions of international migrant, and this toll may be long-lasting.

As described earlier, South-South international migrants face a different set of risks and stressors than South-North migrants. These factors add up to create a great deal more cost to South-North than South-South migrants and may mean more tension in their relationships. Hence, migrants to the United States may face the greatest risk of union dissolution.

Joint influences of migration duration and destination

So far we have discussed the separate implications of time (migration duration) and place (geographic factors associated with the migration destination) for union stability. The

combination of time and place may have an especially important impact on couples' risk of union dissolution. Couples who endure migrations to places that are farther away, involve greater risks and costs, and more different cultural and ideational exposures may experience more pervasive stressors the longer the migration duration (Bornstein 1989).

A migrant is exposed to new ideas and attitudes when they migrate to a destination with ideologies that differ from those in their home communities, and the likelihood that these ideologies are internalized can increase with longer stays. Even internal migrants often move to areas that are more urban than their places of origin, introducing them to a new set of ideas and attitudes (Tienda and Booth 1991, Trent and South 1992, Fuligni and Zhang 2004). Migrants who move across national borders, and especially to the United States, face the most different set of ideologies from Nicaraguan non-migrants (Lindstrom and Saucedo 2002, Frank and Wildsmith 2005). These new ideologies can, in turn, create tension in unions and have lasting effects on union stability (Frank and Wildsmith 2005). In particular, these ideas may be more favourable toward marital dissolution, and this greater favourability can reduce marital quality and increase the odds of union dissolution (Axinn and Thornton 1992, Amato and Rogers 1999).

Moreover, the new ideas and attitudes that husbands develop may conflict with non-migrant wives' attitudes, thus creating more opportunity for tensions between spouses (Frank and Wildsmith 2005). Wives' ideologies may change, as well, while their husbands are away. When husbands migrate for longer periods, women who are left behind tend to take on new roles and responsibilities in order to fill the gap that their husband left (Chant 1998, Francis 2002, Desai and Banerji 2008). This could lead to wives adopting new gender ideologies, which may manifest itself as another source of tension in the relationship.

To illustrate this interacting impact of migration duration and destination on union dissolution, take, for example, a husband who migrates to the United States compared to an internal migrant. He is more isolated from his family and friends than a husband who migrates within Nicaragua. Due to this isolation, he may be especially motivated to develop a new community, and he may increasingly rely on members of his new support network for emotional support (Dreby 2006, Abrego 2014). This can create greater emotional distance from his wife back home, and may make both him and his wife more open to the possibility of meeting a new romantic partner. It may also allow him to acquire and internalize new ideas and attitudes that are prevalent in the United States, including a greater acceptance of marital dissolution. Meanwhile, the internal migrant is able to easily communicate with people in his destination location, and can return home to visit his wife on a regular basis (IOM 2001). With longer duration, the U.S. migrant sees his marriage disintegrating at a more rapid pace than the internal migrant, and this can lead to a higher rate of union dissolution for the U.S. migrant after he returns home.

Given these possible mechanisms, we expect that longer migration to the United States and, to a lesser extent, Costa Rica and domestically, will negatively impact union stability.

METHODS

Our analyses use retrospective data from the LAMP gathered between 2000 and 2002 from households in nine Nicaraguan communities. Nicaragua's nine LAMP communities were selected to reflect the country's ethnic composition, economic variation and other regional differences (Durand, Lozano et al. 2005). Selected communities span a range of urbanicity, with two communities located wholly within Managua's city boundaries, several communities evenly split between small urban centers and outlying areas, and a few communities in rural environs (see Figure 1). Within each community, the survey protocol was administered to a random sample of about 200 households (with the exception of the two communities within Managua, from which 100 households were selected each) to ensure the sampling of a significant number of migrant-sending households and to maintain statistical representativeness to the community level.

LAMP's survey entailed interviews with both the head of household (HoH) and his/her spouse and collected information on life histories and household characteristics (Durand, Lozano et al. 2005). Using life history information, we are able to retrospectively account for annual events since the HoH's year of birth, including all migration events (initiation and return) and all romantic union events (initiation, transition from informal consensual union to formal marriage and separation/divorce/widowerhood). To mitigate potential recall bias, the LAMP interviewed family units as a whole and cross-referenced memorable events such as the timing of migrations, consensual unions and formal marriages, and births (Durand, Lozano et al. 2005).

Sample and statistical analysis

Our analytic sample consists of 1,048 ever married men (producing over 23,000 couple-years of observation). This sample includes only male HoHs because the LAMP survey identified the household head as a male unless no adult male is present. With this approach, a female household head would indicate that the household head experienced a dissolved union (Chant 1997). Hence, including female household heads in our sample would substantially bias our results. Hereafter, we refer to the male HoHs in our sample as both *husbands* and *migrants*. Although we are analysing data from husbands, couples experience romantic union events (including dissolution) together, and so we conceptualize the unit of analysis as couples, or couple-years (CY)s. We include only husbands' first unions, excluding subsequent unions because of the selective nature of persons who experience more than one union (Becker, Landes et al. 1977, Cherlin 1978, Bramlett and Mosher 2002) and the small number of men in our sample who fall into this category (n=28). This approach is comparable to other studies of marital dissolution (Morgan, Lye et al. 1988, Waite and Lillard 1991, Frank and Wildsmith 2005).

We use discrete-time event history analysis and multilevel logistic regression to model the yearly odds (or risk) of the husband's first union dissolution. A couple is considered to be at risk of union dissolution as of the first year that the husband entered his first formal or consensual union, thus eliminating concerns about left-censoring. The benefit of the multilevel modelling approach is that it parses out random error at the community level under the assumption that union dissolution may be different among the dataset's nine

unique communities. Per Chen *et al.* (2003) and Rabe-Hesketh and Skrondal (2008), we performed diagnostic and robustness checks testing for data normality, over dispersion, specification errors, goodness-of-fit problems, multicollinearity, and distorting effects of outliers.

The measure of union dissolution is coded as 0 in every year the couple is married and 1 in the first year in which the union dissolved, after which the couple ceases to contribute CYs to the risk of union dissolution. We treat widowerhood as a competing risk, so that couples in which the wife died ($n=49$) cease to contribute couple-years to the hazard of union dissolution from that year on.

Although the LAMP methodology included interviews with households that were abroad we chose to exclude these households from our sample. If a household was interviewed abroad that necessarily meant that the entire household migrated together, and there was, therefore, no spousal separation. Likewise, we exclude couple-years when both spouses migrated together. Given that our research question focuses on physical spousal separation due to labor migration, it was appropriate to drop those households and couple-years from our sample. We also analyze only migrants who returned home to Nicaragua. This approach reduces selection bias because migrants who did not return may have migrated due to marital discord and not had the intention of returning from the start.

We discuss the results as odds ratios, which indicate the odds of union dissolution in each CY. Because so few union dissolutions occur in each CY, the yearly odds of union dissolution are comparable to the rate of union dissolution. For this reason, we discuss the rate of a union dissolution as interchangeable with the odds of union dissolution. In Figure 2 we display predicted probabilities of the hazard of union dissolution, from unadjusted models, based on interactions between union duration and each of the three migration patterns that we analyse. As shown, the hazard of union dissolution decreases with union duration, but the hazard is greater for migrants than non-migrants in all cases except for U.S. migrants at greater union durations.

Dependent and independent variables

Table 1 displays means and definitions of the dependent and independent variables. Our dependent variable is the yearly rate of union dissolution, operationalized as either a separation or divorce from a formal marriage or consensual union. A separation, as defined here, is due to the breakdown of the union (i.e., mere physical separation, as captured by our independent variables of interest, is not operationalized as a union dissolution). Because there can be a temporal lag in the time from separation to divorce (in the case of formal unions) treating either a separation or divorce as a union dissolution is a common approach, as it allows the pinpointing of the time at which the union was first disrupted (Morgan and Rindfuss 1985, Morgan, Lye et al. 1988, Martin and Bumpass 1989, Hirschman and Teerawichitchainan 2003, Frank and Wildsmith 2005). It is especially appropriate to do so in this context, where informal, consensual unions – the dissolutions of which would not be considered a formal divorce – are common. About 13 percent of couples in our sample experienced a dissolution.

Our key independent measures indicate household migration experience. All migration variables are time-variant and are categorized into three formulations that address migration duration, migration destination and the combination of migration length and destination. Thus, the first measure combines cumulative migration duration, in months, to date, to any of the three destinations.

The second set of measures includes a series of dummy variables, indicating migration to (1) domestic destinations, (2) Costa Rica, or (3) the United States. These three measures are each coded 1 from the first year in which they migrated to the respective destination and 0 otherwise. The third set of measures specifies the cumulative duration of migration, in months, to the three specific destinations.

Other covariates

We also account for other factors that may influence both migration and union dissolution in this setting. Due to the retrospective nature of the data we use, if a dissolution did occur we do not have information on wives from the unions we analyze. Therefore, the covariates reflect husbands' experiences, only.

First, we control for marital experiences. The first of these measures indicates union type and is treated as a series of dummy variables to indicate either informal consensual, religious, or civil union. The union type variable accounts for the greater instability of consensual, compared to religious or civil unions (Martin 2002). This measure is time-variant, to capture the formalization of consensual unions. We also include a time-invariant measure for age at first union, to account for the greater likelihood of union dissolution that individuals who enter unions at younger ages face (Becker, Landes et al. 1977, Morgan and Rindfuss 1985). Additionally, we account for union duration with a continuous measure of years of union. Note that this measure is correlated with migration duration at $r=0.20$.

We include a series of time invariant dummy variables to account for the husband's education: less than primary, primary to secondary, and secondary or higher. Greater education is often associated with reduced odds of union dissolution (Moore and Waite 1981, Martin and Bumpass 1989, Stanley, Amato et al. 2006). Additionally, we include time-variant controls indicating whether the couple had any children to date and the number of minors less than 18 years of age residing in the household. Couples with children face greater barriers to union dissolution (Heaton 1990, Waite and Lillard 1991).

Household wealth is a strong indicator of out-migration and migration selectivity as more affluent households are better able to finance a more costly trip (Hobbs and Jameson 2012). Moreover, greater wealth tends to be negatively associated with marital dissolution (Becker, Landes et al. 1977, Brines and Joyner 1999, Frank and Wildsmith 2005). We include two time-variant controls (homeownership and an asset index) to best capture household wealth in the CY. The asset index variable was created by employing principal components analysis to assign each household in a CY a wealth value between 0 and 10, per a previously described methodology (Filmer and Pritchett 2001; Filmer and Scott 2012). Household assets used to create this index include: number of land parcels, properties and businesses owned, in addition to the number of hectares of land owned.

We also include a time-variant dummy variable identifying years of civil conflict, coded 1 in each year of the Nicaraguan Revolution (1961–1989), and 0 otherwise. During years of conflict couples may be more likely to remain together, as unions offer a form of stability amid external conflict and instability (Williams, Ghimire et al. 2012).

We are unable to fully account for possible endogenous effects. It is possible that migrants are selective from unions with low marital quality. Partners in unions involving lower satisfaction or greater discord may experience both greater motivation for the husband to migrate elsewhere and greater motivation to dissolve the union (Gottman 2014, Jennings 2014). On the other hand, it is also possible that migrants are selective from unions of high marital quality, and migrate because they feel secure in the stability of their marriage. Although we cannot rule out these possibilities entirely, our controls do include a number of factors that have been found to predict marital quality: education (Wilcox and Nock 2006, Allendorf and Ghimire 2013), age at first union (Amato and Booth 2001, Stanley, Amato et al. 2006, Allendorf and Ghimire 2013), presence of children (Umberson, Williams et al. 2005, Stanley, Amato et al. 2006), marital duration (Wilkie, Ferree et al. 1998, Stanley, Amato et al. 2006), and age (as a function of age at first union and union duration) (Amato and Booth 2001).

RESULTS

The major aim of this investigation is to estimate the rate of union dissolution among Nicaraguan couples under different migration scenarios that the husband experienced. In the first model of Table 2, we test whether increased duration of migration to any of the three destinations increased the odds of union dissolution. Under this model, we find a statistically significant increase in the odds of union dissolution as migration length to any destination increases. Specifically, for every month that a husband was away, the odds of union dissolution increased by 0.2 percent. While seeming quite small, the long-term absence of a husband for a five or ten-year period would translate into a 12 and 24 percent increase in union dissolution, respectively. This offers evidence that migration duration is important for the outcomes of romantic unions.

In the second model, we test whether the destination location impacts migrants' odds of union dissolution. In this model we find that the odds of union dissolution increased by 44 percent for Nicaraguan husbands migrating domestically, relative to non-migrant husbands. However, migrants to Costa Rica and the United States do not experience significantly greater odds of union dissolution, relative to non-migrants. Hence, this model offers some evidence that migrants' destination is important for union instability, although it does not confirm our expectation that migration to more distant and risky destinations would increase the odds of union dissolution. The non-significant findings for international migration may be related to the small number of migrants to those destinations compared with the number of domestic migrants.

Finally, the third model of Table 2 tests whether the combination of migration duration and destination are important in regards to union dissolution. The model shows that migration to domestic locations translates into a 0.1 percent increase in union dissolution for every month

a husband is away, relative to non-migrants. The model also shows that a couple's union faces one percent greater odds of dissolving for every month a husband is away in either Costa Rica or the United States. To put these results into perspective, the median migration lengths domestically, to the United States, and to Costa Rica are 180 months, 36 months, and 24 months, respectively. Thus, a migrant that travels to the United States, Costa Rica or to a domestic location for the median migration length would increase his rate of union dissolution by 18 percent, 36 percent, and 24 percent, respectively. This model provides evidence that migration duration and migration destination combine to substantially impact couples' odds of dissolution.

Table 2 also adjusts for union-related and other control variables across the three migration formulations. Results for these union-related and control variables are relatively consistent across models. Focusing on the final model, we find that unions confirmed by a religious ceremony or civil unions dissolve at a rate of 86 percent and 83 percent lower, respectively, than consensual unions. We also find, as expected, that unions that began when the husband was older face lower odds of dissolution. However, union duration is not significantly associated with union dissolution.

Contrary to evidence suggesting that greater education can reduce the odds of divorce (Moore and Waite 1981, Martin and Bumpass 1989, Stanley, Amato et al. 2006, Boyle, Kulu et al. 2008), we find that the husbands with the highest level of education (those with secondary education or higher) experience 2.33 times greater odds of union dissolution, relative to husbands with less than primary education. Additionally, we find a marginally significant, negative influence of Nicaraguan home ownership.

DISCUSSION

We have sought to understand how migration influences union dissolution among 1,048 couples in nine communities in Nicaragua. We examined influences of internal domestic migration, as well as two types of international migration: South-South and South-North migration. Our findings contribute to existing literature by providing evidence that both migration duration and destination can impact marital trajectories among return migrants. This indicates the importance of considering both time and space when studying the impact of voluntary spousal separation on union dissolution.

We expected that migration would increase the odds of union dissolution, and that this association would be especially strong for migrations to farther destinations and for longer durations. Our empirical results support most of these expectations with the exception that, under our destination-only model, only domestic migration was significantly associated with a higher odds of union dissolution. However, the combination of longer migration to more distant destinations was associated with higher odds of union dissolution in our final model. These results lend support to theories suggesting that migration to locations associated with greater costs in the form of emotional distance from left-behind spouses, greater cultural and ideational differences from migrants' location of origin, and a longer time spent in such locations can lead to the disintegration of romantic relationships even after the migrant's return.

Our results are supportive of those found by Frank and Wildsmith (2005) in their investigation of Mexico to U.S. migration. Notably, they found that male migrants with extensive U.S. migration experience face higher rates of union dissolution compared with non-migrants. The present investigation offers similar results, as well as evidence that other migration types (i.e., South-South migration to Costa Rica and internal domestic to a lesser extent) also contribute to higher union dissolution rates.

Although we were unable to directly test the mechanisms that may lead migration to influence marital trajectories, we can speculate on the factors that may be playing a role. Couples who are apart for longer durations may experience the breakdown of intimacy and emotional closeness. Undocumented Nicaraguan migrants that travel to the United States and Costa Rica have especially limited contact with left-behind wives while they are away, and this can take a toll on their union quality (Stafford and Merolla 2007) even after their return. Moreover, with the greater difficulty in visiting family back home, migrants to the United States, and Costa Rica to a lesser extent, may be more likely to have romantic relationships while abroad. This can add to their already-strained relationship, making a dissolution more likely.

Migrants are exposed to a new set of ideas, norms, and attitudes than what they had been exposed to back home, and this is particularly true for those who migrate abroad (Frank and Wildsmith 2005). Our results lend support for the adaptation hypothesis of migrant behavior (Stephen and Bean 1992): Migrants to Costa Rica and the United States may adapt to the higher divorce norms that are prevalent in these destination locations. The United States has one of the highest rates of divorce in the world (Cherlin 2010), and Costa Rica exhibits a much higher divorce rate than neighbouring Nicaragua (United Nations 2009). Thus, migrants who travel to these destinations are exposed to a wider acceptability of divorce, and this may influence their own ideologies and odds of union dissolution.

Although we have aimed to minimize the methodological limitations in our approach, this investigation faces a number of limitations. First, due to selection issues with the LAMP study designed that we mentioned earlier, we exclude female migrants from our sample, which causes us to lose approximately a third of all Nicaraguan migrant cases. Second, and especially important, we were unable to parse out endogeneity effects. For example, it is possible that men in unions that were already facing some instability are more likely to migrate, but our data do not permit us to test this. However, in focusing on return migrants, we partially eliminate concerns that migrants are selected from unions of low quality and migrated with the intention of deserting their spouse. Moreover, the effects associated with endogeneity are unlikely to be correlated with destination location, and so our results provide interesting insight into how different types of migration may differentially influence union instability and dissolution. Third, our analysis faces the issue of right-censoring, as migrants who intended to return but had not yet done so at the time of the survey are excluded.

Couples contemplate adopting migration into their household livelihood strategies to enhance the present and future economic standing of their household. Households who consider a migration weigh the risks and benefits of internal migration against South-South

and South-North international migration in deciding how to best meet their needs. Apart from the economic aspects of migration, migration involves its own set of ramifications that may act counter to couples' intimacy and cohesion. As this study suggests, the inclusion of long-term migration to more disruptive destinations – destinations with greater risks and costs to the migrant and/or exposure to different marriage/divorce norms– may break down romantic bonds for couples that are actively striving to bolster their livelihood conditions. Thus, it is ever important to consider the role of the combination of time and place factors in migration and family stability.

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Figure 1.
Latin American Migration Project Nicaraguan survey communities and migration destinations

Figure 2.
Predicted values of union dissolution for each migration destination interacted with union duration (in years), unadjusted models

TABLE 1.

Dependent and independent variable units, percentages or means and definitions

Variable	Units	% or Mean
<i>Dependent Variable</i>		
Union dissolution ^a	0/1	0.6%
<i>Independent Variables</i>		
<i><u>Migration variables</u></i>		
Combined migration duration ^b	months	73.8
Domestic migration ^a	0/1	24.6%
Costa Rican migration ^a	0/1	3.7%
U.S. migration ^a	0/1	2.6%
Domestic migration duration ^b	months	66.3
Costa Rica migration duration ^b	months	2.9
U.S. migration duration ^b	months	3.6
<i><u>Union variables</u></i>		
Union type ^a		
Consensual	0/1	23.8%
Religious Ceremony	0/1	47.2%
Civil Union	0/1	29.0%
Husband's age at first union ^b	years	23.9
Union duration ^b	years	19.6
<i><u>Control variables</u></i>		
Husband education ^b		
Less than primary	0/1	32.3%
Primary to secondary	0/1	42.0%
Secondary or higher	0/1	25.7%
Had at least one child ^a	0/1	89.4%
Minors in household ^b	#	1.6
Owens home in Nicaragua ^a	0/1	57.4%
Asset index ^b	0-10	1.6
Year of conflict ^a	0/1	51.6%

Source: Latin American Migration Project 2000-2002

^a% reflects proportion of all CYs^bMean reflects value at last observation

TABLE 2.

Random intercept logistic discrete time odds of Nicaraguan male household head's union dissolution from 1935 to 2002, LAMP 2000-2002

	Model 1		Model 2		Model 3	
	Migration Duration Two-level		Migration Destination Two-level		Migration Duration/Destination Two-level	
	Odds Ratio	(Robust SE)	Odds Ratio	(Robust SE)	Odds Ratio	(Robust SE)
<i>Migration variables</i>						
Combined migration duration (months)	1.002 ^{***}	(0.0004)				
Domestic migration (Ref: no migration)			1.44 ^{**}	(0.20)		
Costa Rica migration (Ref: no migration)			1.24	(0.64)		
United States migration (Ref: no migration)			1.67	(0.68)		
Domestic migration duration (months)					1.001 [*]	(0.001)
Costa Rica migration duration (months)					1.01 ^{***}	(0.002)
United States migration duration (months)					1.01 ^{**}	(0.004)
<i>Union variables</i>						
Union type – (consensual union reference)						
Religious ceremony	0.14 ^{***}	(0.03)	0.14 ^{***}	(0.03)	0.14 ^{***}	(0.03)
Civil union	0.17 ^{***}	(0.04)	0.17 ^{***}	(0.04)	0.17 ^{***}	(0.04)
Husband's age at first union	0.96 ^{**}	(0.01)	0.97 ^{**}	(0.01)	0.96 ^{***}	(0.01)
Union duration (years)	0.98	(0.01)	0.98	(0.01)	0.98	(0.01)
<i>Control variables</i>						
Migrant's education (less than primary – reference)						
Primary to secondary	1.15	(0.21)	1.13	(0.23)	1.12	(0.21)
Secondary or higher	2.35 ^{***}	(0.49)	2.21 ^{***}	(0.48)	2.33 ^{***}	(0.49)
Had at least one child	1.04	(0.47)	1.01	(0.45)	1.05	(0.48)
Minors	1.07	(0.07)	1.07	(0.07)	1.07	(0.07)
Owens home in Nicaragua	0.59 [†]	(0.18)	0.60 [†]	(0.18)	0.58 [†]	(0.18)
Asset index	1.09	(0.07)	1.08	(0.06)	1.08	(0.07)
Year of conflict	1.03	(0.24)	1.02	(0.25)	1.04	(0.24)

	Model 1		Model 2		Model 3	
	Migration Duration Two-level		Migration Destination Two-level		Migration/ Duration/Destination Two-level	
	Odds Ratio	(Robust SE)	Odds Ratio	(Robust SE)	Odds Ratio	(Robust SE)
Constant	0.04***	(0.02)	0.04***	(0.02)	0.05***	(0.02)
Ψ	0.18	(0.09)	0.18	(0.09)	0.17	(0.08)
Couple Years	21,214		21,214		21,214	
Couples	1,048		1,048		1,048	
Communities	9		9		9	
Dissolutions	136		136		136	

χ^2 p<0.10;
* p<0.05;
** p<0.01;
*** p<0.001