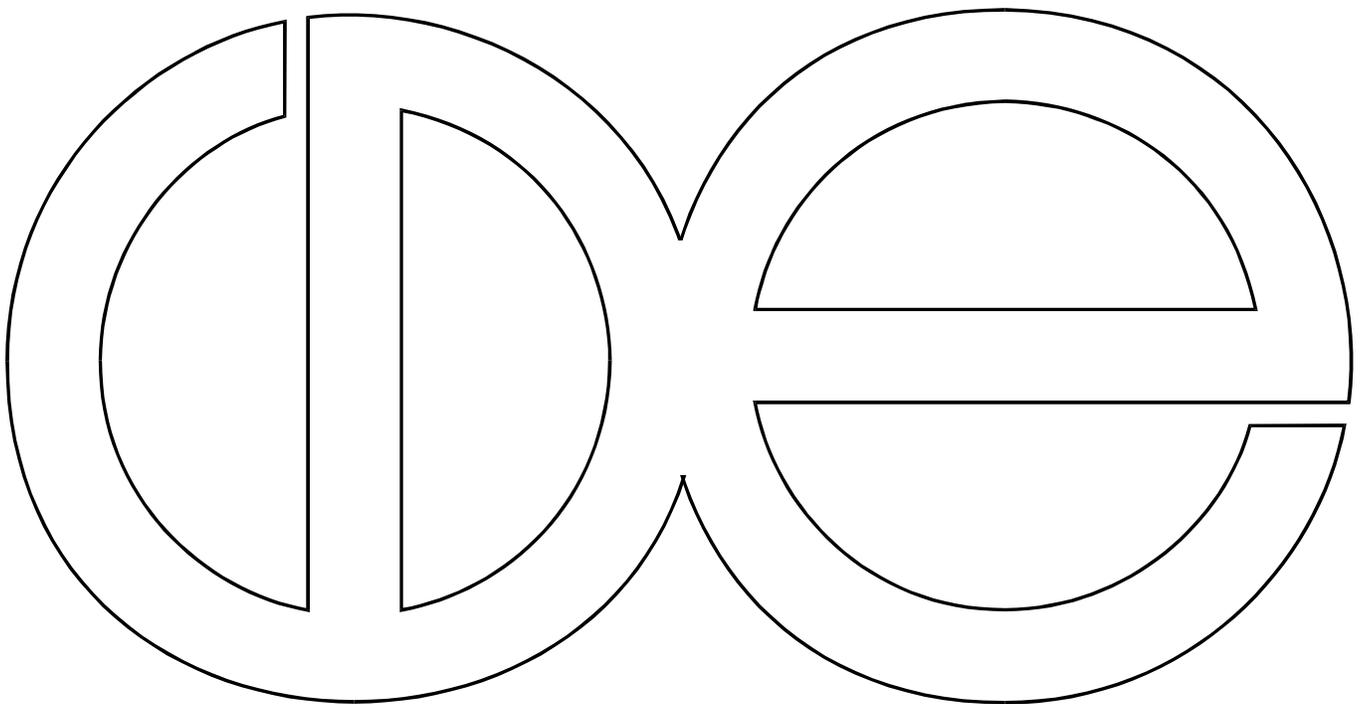


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**Migration and Father Absence:
Shifting Family Structure in Mexico**

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**MIGRATION AND FATHER ABSENCE:
SHIFTING FAMILY STRUCTURE IN MEXICO**

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ABSTRACT

Despite many changing demographic processes in Mexico – declining adult mortality, rising divorce, and rising nonmarital fertility – children’s family structure has been most affected by rising migration rates. Data from five national surveys spanning three decades demonstrate that since 1976, migration has shifted from the least common to the most common form of father household absence. Presently, over one in five children experience fathers’ migration by age fifteen; one in eleven experiences his departure to the United States. The proportions are significantly higher among children born in rural communities and born to less-educated mothers. The findings emphasize the importance of framing migration as a family process with implications for children’s living arrangements and attendant wellbeing, particularly in resource-constrained countries. The stability of children’s family life in these regions constitutes a substantial but poorly-measured cost of worldwide increases in migration.

Between 1970 and 2005—a period characterized as the *Great Mexican Emigration*—the flow of migrants from Mexico to the United States increased over 700% (Hanson and McIntosh 2010). During this period, the larger but slower-growing interstate migration flows within Mexico increased by 20% (INEGI 2010). Because these changes have had important implications for both sending and receiving communities, various facets of Mexican migration are now well-documented (CONAPO 1999; Hill and Wong 2005; Marcelli and Cornelius 2001; Massey, Durand, and Malone 2002; Passel 2009). Nevertheless, a key implication of these changes has been largely ignored: what migration means for children’s family structure in Mexico.

This constitutes a surprising omission; the proportion of children affected by this process is substantial. Mexican migration is not limited to the young, unmarried, or childless. Although parenthood among migrants remains poorly documented, more than 30% of migrants are above the age of 35 at departure (Chávez Juárez 2009; Marcelli and Cornelius 2001), well above the mean age at childbearing. In fact, among married couples, births *increase* the probability of men’s migration (Lindstrom and Giorguli Saucedo 2007). And though some children ultimately move to join migrant parents, families usually migrate in stages (Dreby 2010; Suárez-Orozco et al. 2002). In combination the patterns point to a rise in a distinct form of family life in Mexico – one in which parents and children can be separated for years, despite the continuity of parents’ marriages.

Documenting the shift in children’s family structure is important because of mounting evidence that parental migration has meaningful implications for child development. Though research on nonmigrant children remains quite limited (particularly in comparison with research on children who move with parents to the United States), several studies suggest that the migration of Mexican parents constitutes a disruptive family transition (Dreby 2010; Falicov 2007)¹ with significant health and education costs for children who remain in origin homes. The migration of fathers is associated with increased illness (Schmeer 2009), reduced vaccination coverage and reduced receipt of breastfeeding, but larger birthweight (Hildebrandt and McKenzie 2006), lower educational aspirations (Kandel and Kao 2001; Kandel and Massey 2002; Nobles 2011), a lower probability of transitioning into high school (Creighton et al. 2009; Halpern-Manners 2011), lower school attainment (McKenzie 2005), a reduction in study hours (Antman

¹ Research emphasizes the difficulty faced by Mexican children who mourn the departure of parents and who must renegotiate relationships with changing authority figures; parents’ return is often equally complex (Dreby 2010; Falicov 2007; Kanaiaupuni 2000).

2011) and a higher probability of behavioral problems (Heymann et al, 2009). Although many migrants send sizeable remittances to families, these may not begin for months or years after a migrant's departure. Moreover, remittances are often important but incomplete substitutes for the emotional, caregiving, and disciplinary roles filled by coresident parents (Dreby 2010; Goldring 2004; Hondagneu-Sotelo 1994).

Given these findings, this study highlights the dearth of population-level estimates on children's family structure in lower-income countries like Mexico and emphasizes that the form of parental absence most overlooked in developing contexts may now be the form that is most prominent. The research has three goals: (1) to use period data to document how the rise in Mexican migration over the last three decades has changed children's coresidence with fathers, (2) to use detailed household survey data collected in the last decade to assess the relative contribution of migration, versus other demographic sources of father absence, to children's residence in single-parent homes over the course of childhood, (3) to assess whether these processes are disproportionately experienced by children from less-advantaged backgrounds. To this end, I also use migration flow data to document parenthood among adult migrants. Because Mexican men are much more likely than Mexican women to migrate without family members (Cerutti and Massey 2001), I emphasize the departure and return of fathers in this research.

The value of the undertaking arises from a voluminous literature demonstrating that the structure and stability of children's living arrangements are strong predictors of their later-life outcomes and serve as a central pathway through which changing social phenomena shape child wellbeing (Amato and Gilbreth 1999; Fomby and Cherlin 2007; Strochein 2005). To date, many studies have examined how family structure is shaped by mortality, fertility, and marital processes, identifying at-risk children and quantifying the potential impact of changes in divorce, cohabitation, and non-marital fertility on population welfare (Bumpass and Lu 2000; Heuveline, Timberlake and Furstenberg 2003; Landale and Hauan 1992; Lloyd and Desai 1992, Mier y Terán et al. 2001; Mier y Terán and Rabell 2005). Unfortunately we still know little about how migration contributes to child-parent coresidence across populations (UNICEF 2008) or how migration compares to other demographic processes as a source of family instability.

In the absence of an intersection between migration, marriage, and fertility—if migrants delay fertility until after moving—children's family structure in sending countries will remain unchanged and the intergenerational effects of rising migration rates will be muted. By contrast,

in contexts with lower divorce and non-marital fertility rates, migration may be the dominant source of parental absence. In these cases, national estimates provide an important foundation for further research on this understudied group of children. When the absence of migrating parents has demonstrated costs for children, national estimates of shifting family structure are central to understanding the impact of migration on population welfare.

DATA AND METHOD

To capture Mexican family structure changes, I use four national data sets: the 1992, 1997 and 2009 cross-sectional Encuesta Nacional de Dinámica y Demográfica (ENADID), and the 2002 and 2005 waves of the longitudinal Mexican Family Life Survey (MxFLS). Mid-1970s estimates come from a fifth national data set, the 1976-1977 World Fertility Survey (WFS), and are calculated using tables from Richter (1988) and De Vos (1995). Description of the WFS is available at Ordorica and Potter (1981) and ENADID in INEGI (1994; 1999; 2010). The MxFLS collected data from 8,300 households in 150 communities across Mexico. In 2005, the second wave achieved 90% respondent recontact (Rubalcava and Teruel 2008).

I use mothers' reports of marital status and spouses' residential location to generate period estimates of father absence due to migration and other demographic processes. U.S. migrants are fathers living in the U.S. at the survey date. Domestic migrants are fathers who live away from the household but not in the United States (Creighton et al. 2009).² Both groups exclude fathers who depart the household following divorce and separation—I attribute these men's absences to union dissolution.³ By conditioning fathers' assignment as migrants on their marriage to mothers, the estimates will, if anything, provide a lower bound on the contribution of migration to family structure. Migration may also contribute indirectly to father absence by influencing divorce, death, or non-marital fertility (e.g., Frank and Wildsmith 2005).

² Over 99% of Mexican emigration is to the United States. Absent fathers not in the U.S. are almost certainly living in Mexico. The majority of domestic migrants move *within* states. In the MxFLS, 72% of adult men migrating between 2002-05 crossed municipality boundaries; 43% crossed state boundaries. Relative to adult male migrants without children, migrant fathers were significantly more likely to migrate within the state.

³ Because the MxFLS asks about marital / union dissolution and *separation*, the approach is not misclassifying dissolving unions as domestic migration. Further details on paternity assignment and the classification of fathers as migrants are available in online supplementary material.

To examine how migration affects father absence over the course of childhood, I develop a series of period increment-decrement life tables (Palloni 2001; Schoen 1988); these rely on the MxFLS data, the only national data set with sufficient information to estimate age-specific transition rates in children's family structures. I use household roster information in combination with marital and migration histories to assign paternity to the children and to measure their living arrangements at the date of first interview in 2002 and exactly one year prior in 2001. The sample includes 11,110 children ages 0 to 14 in 2001 and ages 1 to 15 in 2002.

If father absence does have costs for children and is differentially borne by those with fewer resources, migration will likely play a role in the exacerbation of regional and social inequality across generations. To investigate differences in the estimates by potentially relevant household characteristics, I stratify the MxFLS sample first on rural residence at birth (67% of the sample) and then by socioeconomic status – using an indicator that the child's mother did not obtain any secondary schooling (57% of the sample) – and generate a new set of lifetables. Both characteristics are appropriately fixed at birth.⁴ Finally, I resample the MxFLS data with replacement 1,000 times and use the sampling variability to create 95% confidence intervals around the lifetable estimates (Efron and Tibshirani 1994).

RESULTS

MIGRATION, PARENTHOOD, AND CHANGES IN FATHER ABSENCE FROM 1975-2009

Although migration from Mexico to the U.S. has a long history with smaller increases in the early 1900s, the rise from 1970 to the late 2000s was unprecedented (Hanson and McIntosh 2010). Several studies have documented the changing flow composition over this period (Durand and Massey 2001; Marcelli and Cornelius 2001; Passel 2006); this is a difficult task because of the issues inherent to sampling a highly mobile and marginalized population. Despite frequent attention to age, education, and health selection, selection on parenthood among migrants is rarely documented.⁵

⁴ Mexican educational attainment has increased sufficiently to warrant distinctions beyond secondary schooling. Among mothers of these children, however, less than 15% advanced to high school and 5% completed college, providing insufficient data support for separate lifetables.

⁵ Suro (2005), for example, found that 12% of the *stock* of migrants seeking IDs at Mexican consulates in the United States have children in another country. Other treatments of family arrangements focus exclusively on children living in the United States (e.g., Passel 2006).

The MxFLS data facilitate an assessment of flow composition because migrants were followed between waves, independent of documentation. An examination of data on adult respondents reveals that 30% of men who migrated to the U.S. between 2002-2005⁶ and 34% of men who migrated domestically between 2002-2005 had children under the age of fifteen living in their origin homes (Table 1). The percentages are substantially larger among older migrants.

Intuitively then, we would expect that rising migration would have implications for children's family structure in Mexico. Period estimates confirm this. Between 1976 and 2005, the percentage of children living apart from migrant fathers (either domestic or international) increased by a factor of five (Figure 1). In fact, the proportion with fathers in the U.S. increased by a factor of four between 1992 and 2005 alone. In 1992, 1 in 100 children had a father in the U.S.; by 2005, 1 in 22 children had a father in the U.S. Although data on U.S. migration were not collected in the 1976-1977 WFS, if we assume that the percentage of children with fathers in the U.S. did not exceed one fourth of children with either type of migrant father—a condition that holds in the 1990s when data on both forms of father absence are first available—the percentage of children in 1976 living apart from fathers in the U.S. would not exceed one third of 1 percent. Thus the increase in the proportion of adult men migrating during the “Great Mexican Emigration” (Hanson and McIntosh 2010) produced an even larger increase in the proportion of Mexican children living apart from emigrant fathers.

Both divorce and non-marital fertility increased by roughly three-fold over this period (INEGI 2011; Cerutti and Binstock 2009),⁷ yet the percentage of children affected by both processes has changed little over the past three decades. Adult mortality—and the percentage of children living with a widowed mother—declined by roughly a third. As a result of these trends, migration is now the most common form of father absence in Mexico (Figure 1).

HOUSEHOLD INSTABILITY AND THE TEMPORAL BURDEN OF FATHER ABSENCE

The above period estimates measure the percentage of children living apart from their fathers at a given survey date. They capture only a fraction of children whose fathers migrate at some point before the child reaches age 15. Increment-decrement lifetable estimates of the cumulative

⁶ Including those who had returned by 2005.

⁷ Average children-ever-born to single women increased from 0.1 to 0.3 between 1970-2010; the divorce rate increased from 4.4 in 100 to 15 in 100 between 1980-2009 (INEGI 2011).

probability of fathers' migration are shown in Table 2. Estimates in column 1 are calculated by taking the product of estimated age-specific transition probabilities (${}_1q^{ij}_x$) of staying in state i .

$$1. \prod_0^{14} {}_1q^{ii}_x$$

Estimates in columns 2 and 3 are calculated using the age-specific probabilities of moving from state i to state j , where state i is the starting state of interest, state j are all other states, and state k is the receiving state (Schoen 1988).

$$2. 1 - \left[\prod_0^{14} \left((\sum_j {}_1q^{ij}_x) - {}_1q^{ik}_x \right) \right]$$

Eighteen percent of children born in two-parent homes are expected to experience a fathers' migration by the age of fifteen (Table 2, summing columns 2 and 3). Because some children are born apart from migrating fathers (4% to domestic migrants and 4.5% to international migrants), the proportion of *all* children with migrating fathers is even larger. Nearly one in eleven children is expected to experience a father's international migration and over one in five is expected to experience any type of migration by the age of fifteen.⁸

Importantly, the estimates presented in Table 2 represent average probabilities for the population, which likely mask underlying heterogeneity. Clustering of migration among the same children could upwardly bias estimates in Table 2. One means of assessing this issue is to examine experiences of father absence among children aged 15 using the migration history data in the MxFLS. The completed cohort estimate closely matches the period estimate in Table 2. Among children of married parents, 6% have fathers who migrated to the United States and 16% have fathers who migrated domestically or internationally between their births and age fifteen.

As a temporal burden over childhood, migration is also comparable to divorce in Mexico. Figure 2 demonstrates how the pooled person-years lived over childhood are distributed across living arrangements at the population level. Migration accounts for nearly a third of children's time spent outside of a two-parent home (9 of 29%). This proportion appears roughly equally divided among internal and international migration. 11% of children's time is spent apart from fathers because of divorce or widowhood and 7% is spent apart from fathers because of non-marital fertility.

⁸ Estimates obtained by multiplying the probability of a father's departure among children born into two-parent homes (Table 2) by the proportion born into a two-parent home and adding it to the proportion born to migrating fathers.

These averages mask significant regional and socioeconomic heterogeneity. Among children born into two-parent homes, the probability of having a father migrate either domestically or to the United States is substantially higher in rural regions and among children with less educated mothers; in both subgroups, over 20% of children who reside with their mothers are expected to experience a fathers' absence at some point during childhood because of migration (Table 2, summing columns 2 and 3). The probability of a father's domestic migration is higher for children of less educated mothers. By contrast, educational patterning is not observed in fathers' U.S. migration. This is consistent with previous research on the educational selectivity of internal migrants in Mexico and the relative lack of educational selectivity among international migrants (Arenas et al. 2009; Feliciano 2005).⁹

In rural regions, 14% of childhood years are lived apart from migrating fathers (Figure 2); in these areas migration actually outpaces divorce, death, and nonmarital fertility *combined* as a contributor to children's time apart from fathers. Similarly, children of less-educated mothers spend significantly more time with fathers migrating, either abroad or domestically, than do children of mothers with at least some secondary schooling.

The findings are meaningfully large; omitting migration from estimates of children's living arrangements understates – by half – the extent to which children in rural Mexico spend time in “single” parent homes.

DISCUSSION

Children who remain in origin households are rarely incorporated into debates about the economic ramifications of migration systems (Hochschild 2000; McKenzie 2005; Parreñas 2005). Yet a large number of children will be affected by the process; the worldwide population of international migrants now exceeds 200 million and the worldwide population of internal migrants exceeds 700 million (United Nations 2009). The results here indicate that at least 4% of children under 15 in Mexico - or 1.3 million children - have fathers living in the United States at present; twice that many are expected to experience fathers' departure to the U.S. at some point before age 15. Over 6 million children will experience a fathers' domestic migration by the age of 15. Given the well-documented effects of family stability for children's later life outcomes, one

⁹However separately examining children in the most educated homes, with relatively low rates of U.S. emigration (McKenzie and Rapoport 2010), would likely reveal meaningful differences.

link between migration and socioeconomic change in origin communities will operate through the parenting investments made in the next generation.

Undoubtedly remittances present an opportunity to offset the costs of instability and father absence. Nevertheless remittances are not universal (Goldring 2004) and the capacity of financial transfers to offset these costs lacks strong empirical support, though this line of inquiry is still relatively new. The few studies on children's outcomes test for the net effects of fathers' departures over the short run; to-date, these effects appear to be negative (Creighton et al. 2009; Heymann et al. 2007; Schmeer 2009).

This study thus highlights a second point: the traditional conception of family transitions must be extended to include parental migration as a form of household instability for children in middle- and low-income countries. In Mexico, migration accounts for nearly the same percentage of childhood spent apart from fathers as divorce. In rural areas, migration dwarfs other demographic processes as a driver of father absence.

Documenting the effect of migration on children's family structure thus serves as an important counterpart to similar undertakings in cohabitation research, which showed that children who appeared to be raised by single parents were actually living with two (Bumpass and Lu 2000). The opposite argument must also be considered: in developing countries, many children who appear to be living in homes with two married parents are actually living with one. And despite the importance of extended-family caregiving in many societies, Mexican children with emigrant fathers do not disproportionately coreside with extended family relative to children living with both parents (Nobles 2012).

The magnitude of the migration findings is notable because the estimates almost certainly constitute lower bounds on the proportion of children affected by migration. Children whose parents are divorced may also have fathers in the United States. In this study, time apart from these fathers is attributed exclusively to divorce. And although not emphasized here, the number of migrating Mexican mothers appears to be growing (Dreby 2010). The national estimates also mask further regional heterogeneity. Targeted samples from historically important sending states have noted an even larger proportion of children with absent parents.¹⁰

¹⁰ For example, one quarter of school-aged children in the Mixteca region of Oaxaca had an emigrant parent in 2005 (Dreby and Stutz, 2012).

The study thus provides an important foundation for further research on children raised in the origin regions of major migration flows. That migration can contribute to meaningful gains in microenterprise, capital accumulation, and city infrastructure is undeniable (Kanaiaupuni and Donato 1999; Massey, Durand, and Malone 2002; Woodruff and Zenteno 2007). Parental migration likely generates new opportunities for some children. At the same time, the effects of household instability on children's subsequent education, mental health, employment, and negotiation of adult relationships are increasingly well-established (Chase-Lansdale et al. 1995; Donahue et al. 2010; Halpern-Manners 2011; Sassler et al. 2009; Sun and Li 2008). Whether children of migrants, now a substantial proportion of the Mexican population, reach adulthood ultimately advantaged by remittances and regional development gains remains an important subject for future research.

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Table 1. Adult Male Migrants between 2002 and 2005

Mid-period characteristics	Men aged 15 and older		Men aged 30 and older	
	U.S. Migrants	Domestic migrants	U.S. Migrants	Domestic migrants
Mean age	27.2	30.8	42.4	47.6
Mean number of children in Mexico under age 15	0.64	0.66	1.56	1.00
Any children in Mexico under age 15 (%)	30	34	68	50
By age of child: 0-4	16	21	23	18
5-9	16	15	41	26
10-14	14	13	45	30
N	467	560	145	221
<i>As a percentage of comparably aged adult males</i>	<i>5.9</i>	<i>7.5</i>	<i>2.8</i>	<i>4.6</i>

Source: Mexican Family Life Survey

Note: Mid-period characteristics assessed by averaging measured characteristics in 2002 and 2005. “Adult” refers to persons age fifteen or older; “children” refers to persons younger than fifteen years of age.

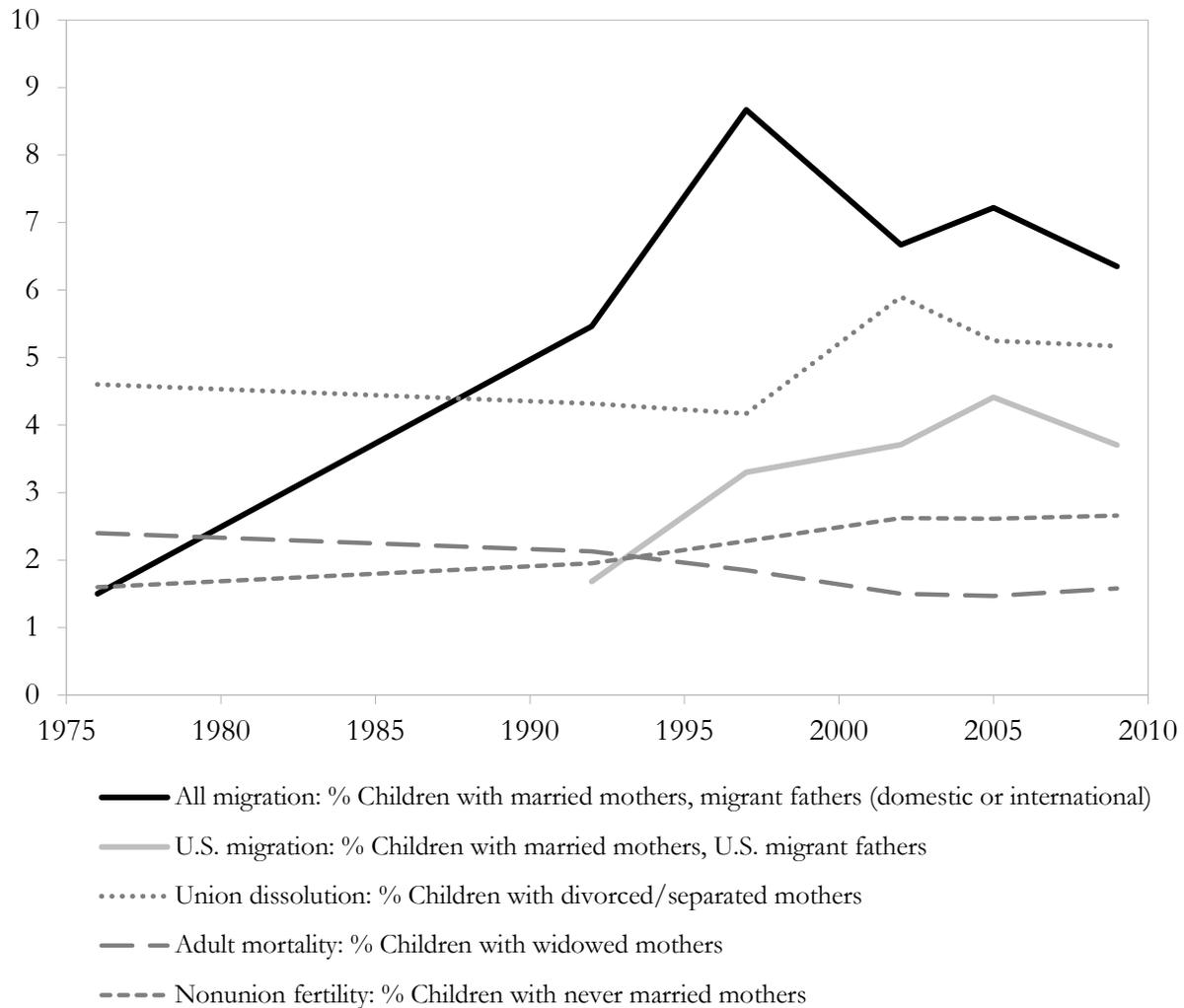
Table 2. Cumulative Conditional Probabilities (p) of Making Transitions in Living Arrangements between Birth and Age 15 for Children Born into Two-Parent Homes

	N	<u>By the age of 15, cumulative probability of:</u>					
		(1)		(2)		(3)	
		Father staying in household continuously		Father migrating in Mexico		Father migrating to the United States	
		p	(95% conf.)	p	(95% conf.)	p	(95% conf.)
All children	11,110	0.66	(0.62 - 0.70)	0.12	(0.09 - 0.14)	0.06	(0.04 - 0.08)
Among children living with mothers:							
Mother's education: primary or less	5,899	0.57	(0.51 - 0.63)	0.18	(0.13 - 0.23)	0.07	(0.04 - 0.09)
Mother's education: secondary plus	3,976	0.77	(0.71 - 0.82)	0.05	(0.02 - 0.08)	0.05	(0.02 - 0.08)
Region of birth: rural	3,294	0.66	(0.61 - 0.71)	0.14	(0.10 - 0.18)	0.09	(0.06 - 0.12)
Region of birth: urban	6,917	0.68	(0.61 - 0.75)	0.05	(0.03 - 0.08)	0.02	(0.01 - 0.03)

Source: Mexican Family Life Survey

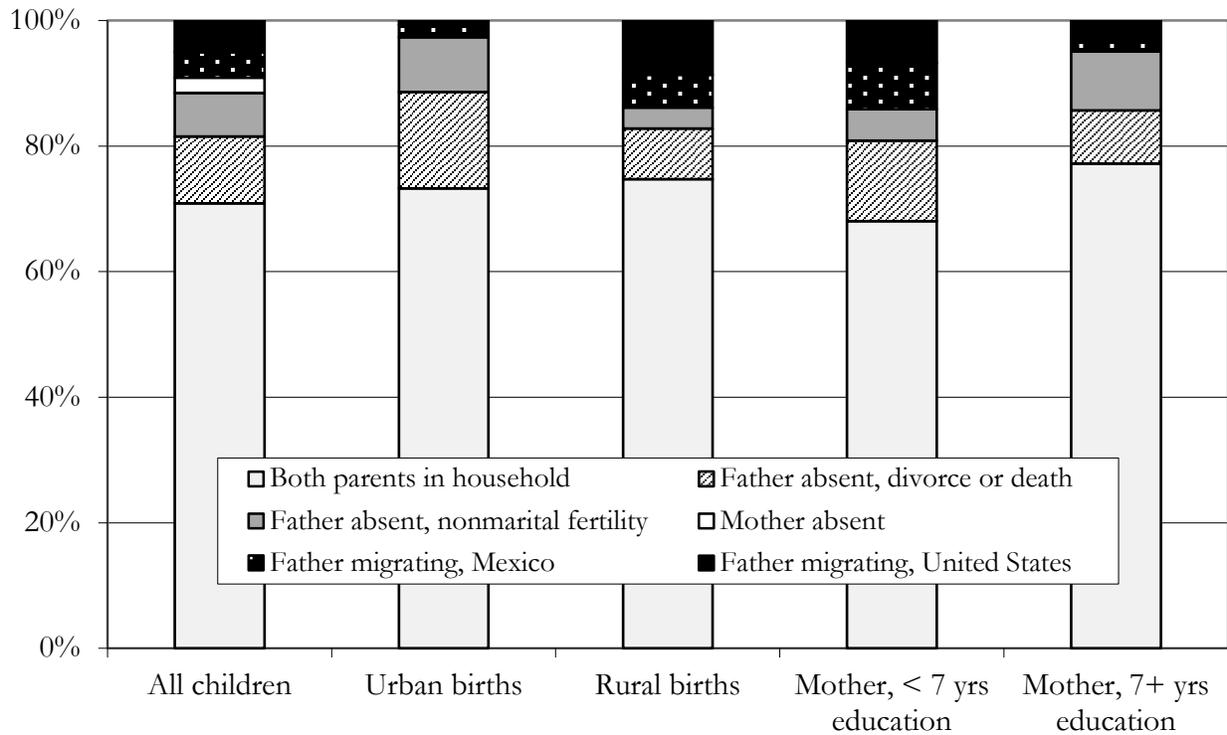
Note: Estimates generated with increment-decrement lifetables using single-year age-specific transition rates calculated with all children (N) and initiated with children born into two-parent homes. At birth, 82.3% of children are born with both parents in the household, 4% with a father migrating domestically, and 4.5% with a father migrating internationally. Confidence intervals calculated from standard deviations of 1,000 bootstrapped sample estimates.

Fig. 1 Percentage of Mexican Children Living Apart from Fathers Because of Migration, Divorce, Non-marital fertility, and Death, 1976-2009



Note: Percentages from 1976-77 World Fertility Survey drawn from Richter (1988). The estimate of children living with married mothers, migrant fathers in 1976 is calculated using DeVos (1995: Table A2 and Richter 1988: Table 5). Other percentages calculated using data from the 1992, 1997, and 2009 Encuesta Nacional de la Dinámica Demográfica (INEGI 1999, 2010) and the 2002 and 2005 Mexican Family Life Survey (Rubalcava and Teruel 2008). Because of changes to the ENADID 2009 survey, the 2009 estimate of U.S. migration (3.71%) is calculated by applying the observed ratio of children living apart from fathers in the U.S. to children living apart from all migrants in 2002 and 2005 to the percentage of children living apart from all migrants observed in 2009. All estimates are weighted.

Fig. 2 Percentage of childhood spent in selected living arrangements between birth and age 15 in Mexico



Source: Mexican Family Life Survey

Note: Estimates calculated with increment-decrement life tables. Births stratified by region and mothers' education exclude children living apart from mothers.

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