

# **Mexican Migration to the United States and Family Planning**

Kate H. Choi

Princeton University

Erin R. Hamilton

University of California, Davis

## **Short abstract**

Mexican immigrants have higher fertility rates than non-migrant in Mexico and native-born groups in the United States. Although fertility differentials between Mexican immigrants and the other groups are well documented, there is little research that explores why these patterns arise. To address this gap, this paper documents variations in the fertility intentions and contraceptive use of Mexican immigrants, US-born groups, and non-migrants in Mexico. This analysis will help ascertain the extent to which fertility differentials between Mexican immigrants and other groups are due to (1) migrant selectivity; (2) differential access to contraceptives; and (3) socioeconomic disadvantage. For Mexican immigrants, the paper will also investigate how fertility intentions and contraceptive use changes throughout the migration process. This analysis will disentangle to what extent shifts in fertility timing during the migration process are intended or result from the constraints imposed by the migration process. Together, these analyses contribute to the literature on the fertility assimilation of Mexican immigrants.

## Extended Abstract

### Introduction

Immigrant fertility has long garnered considerable attention by scholars and policymakers due to its implications for future population size and composition (Ford 1990; Parrado 2011; Stephen and Bean 1992). In the United States, scholarship on immigrant fertility focuses on Mexican immigrants because they both dominate the flows of international migration and their observed fertility rates are considerably higher than other groups (Carter 2000; Choi 2011; Frank and Heuveline 2005; Parrado 2011; Parrado and Morgan 2008).

Recent studies of Mexican immigrant fertility have largely focused their efforts on accurately computing the size of fertility differentials between Mexican immigrants, native-born groups in the United States, and non-migrants in Mexico (Carter 2000; Choi 2011; Frank and Heuveline 2005; Stephen and Morgan 1992). These studies show that Mexican immigrants have higher fertility than non-migrants in Mexico and than native-born groups in the United States, even when adjusting for changes in the timing of fertility surrounding migration (Choi 2011; Parrado 2011). However, to date, there is very little empirical research examining how and why Mexican immigrants have higher fertility than other groups, including why migration alters the timing of childbearing.

This paper investigates what gives rise to the fertility differentials between Mexican immigrants and other groups by documenting variations in fertility intentions and contraceptive use among Mexican immigrants, non-migrants in Mexico, and native-born groups in the United States. We focus on birth intentions (whether a birth was wanted) and contraceptive use as windows into the meaning of underlying fertility patterns. By examining (un)wanted births, we gain insight into the motivations and desires behind the underlying fertility patterns. However, birth intentions, particularly as retrospective reports, are complex and may change following a contraceptive failure; therefore, we additionally examine contraceptive use, as it is a key proximate determinant of fertility (Bongaarts 1978).

Specifically, we use nationally representative demographic surveys from Mexico and the United States to determine whether Mexican immigrants are more likely to have intended pregnancies and less likely to use the most effective and reversible contraceptive method than non-migrants in Mexico and native-born groups in the United States. For the subset of Mexican immigrants in the United States, we also explore whether the likelihood of having an “intended” pregnancy and likelihood of using an effective and reversible contraceptive method change across the distinct stages of the migration process—i.e. before and after migration.

Understanding variations in birth intentions and contraceptive use among Mexican immigrants, non-migrants in Mexico, and native-born groups in the United States will help disentangle the extent to which group differences in fertility levels are attributable to (1) migrant selectivity; (2) access to contraceptives; and/or (3) disadvantaged socioeconomic status. Additionally, documenting how fertility intentions and contraceptive use change over distinct stages of the migration will inform to what extent shifts in the timing of fertility are planned by migrants or result from constraints imposed by the migration process, such as spousal separation due to stage migration and/or differential access to birth control. Together, the findings will further inform debates surrounding the fertility assimilation of Mexican immigrants (Wilson 2009).

The abstract is organized as follows. In the next section, we summarize prior work documenting fertility differentials among Mexican immigrants, native-born groups in the United States, and non-migrants in Mexico with a special focus on the mechanisms identified as key

determinants giving rise to the high fertility rates of Mexican immigrants. The third section describes the data and methods used in this study. We conclude with an illustration of our preliminary results and detail future steps.

## **Background**

### *Differences in the Fertility Levels among Mexican Immigrants, Non-migrants in Mexico, and Native Born Groups in the United States*

Research on immigrant fertility has generally focused on the accurate computation of fertility differentials. Migration selects on age and marital status, and migration itself alters the timing of childbearing, so period measures of fertility and group comparisons can be misleading (Parrado 2011). Adjusting for these issues, studies generally agree that current Mexican immigrant fertility is higher than non-migrant fertility in Mexico and than native-born groups' fertility (Choi 2011; Frank and Heuveline 2005; Parrado 2011).<sup>1</sup> The larger debate surrounding the fertility of Mexican immigrants has dealt with their assimilation trajectories: whereas some studies argued that the fertility of Mexican immigrants decreases with prolonged exposure into US family norms, others argued that the fertility of Mexican immigrants remained high regardless of their duration of stay in the United States (Bean et al. 1984; Carter 2000; Stephen and Bean 1992; Parrado and Morgan 2008).

There is little research exploring why Mexican immigrants have higher fertility rates than non-migrants in Mexico and native born groups in the United States, but there are a number of potential mechanisms that may give rise to the higher fertility of Mexican immigrants, including migrant selection, pronatalist norms, access to contraceptives, and disadvantaged status in the United States.

First, migration may be selective of individuals with high fertility. Mexican immigrants are disproportionately drawn from rural origins and from the center-west region of Mexico (Durand et al. 2001), which are areas with higher fertility (CONAPO 2009). This may mean that migrants have fertility that is similar to their local non-migrant counterparts, but that is higher than the national average. We will examine this possibility by comparing the contraceptive use and fertility intentions of pre-migrants and non-migrants in Mexico, using data from the first panel of the Mexican Family Life Survey. If selection is at work, then we would expect to see that controls for place of origin, including state and size of place, should explain differences between pre-migrants and non-migrants.

A second reason why Mexican immigrants have higher fertility rates than other groups may be because they have limited access to contraceptives. Mexican immigrants have lower rates of health insurance coverage and health care utilization compared with other groups in the United States (Hamilton et al. 2006). Because some forms of contraceptives are only available through clinical providers in the United States, the lower rates of health care utilization mean that Mexican immigrant women will have more limited access to certain forms of contraceptives than other US groups. Mexican immigrants also face greater restrictions in access to contraceptives than non-migrants in Mexico. In Mexico, hormonal contraceptives are available over the counter and about 40 percent of women who use oral contraceptives obtain them from a pharmacy provider (Potter, Moore, Byrd 2003; Yeatman, Potter, and Grossman 2006). To test this

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<sup>1</sup> Higher fertility among Mexican immigrants relative to non-migrants in Mexico reflects a shift that has occurred over the course of the demographic transition (see Choi 2011; Frank and Heuveline 2005; versus Rindfuss and Sweet 1977; Marcum 1980).

explanation, we will investigate to what extent differential contraceptive use reflects limited access to contraceptives.

The last explanation is associated with the disadvantageous position of Mexican immigrants. Prior work has argued that the fertility of Mexican immigrants will remain high relative to other groups due to their precarious economic conditions, which reduce their opportunity costs associated with childbearing (Forste and Tienda 1996; Frank and Heuveline 2005). This would mean that the relatively low rates of contraceptive use and high levels of intended births reflect differential socioeconomic status across groups in the United States.

### *Migration and Fertility Timing*

In addition to examining differences in the use of contraceptives and in intended births between Mexican immigrants, non-migrants in Mexico, and native groups in the United States, in this paper we also examine differences in the contraceptive use of Mexican immigrants across various stages of the migration process. The effect of migration on fertility timing has been widely documented across a variety of migration systems (Andersson 2004; Choi 2011; Parrado 2011). The pattern that has been consistently documented in these studies is that immigrants disrupt their fertility in the period immediately preceding migration, but they compensate for the earlier disruption in fertility once they migrate (Andersson 2004; Choi 2011; Parrado 2011). Several different explanations are possible for the fertility shifts that occur due to migration.

The clearest explanation for migration-related changes in fertility is that couples intentionally postpone their fertility until after they migrate because migration is disruptive and uncertain. This is especially the case for undocumented migration, which is becoming more common among Mexican women migrants (Donato et al. 2008). Mexican immigrant women may not desire to experience the rigors associate with illegally crossing the border while they are pregnant or accompanied by an infant child. Therefore, they will postpone their births once they cross the border. This would suggest a temporary increase in the use of the most effective and reversible methods of contraceptive use prior to migration and/or an increase in the likelihood of unintended births in the period immediately preceding migration.

In the context of Mexican migration to the United States, husband's migration often precedes wife's migration (Cerruti and Massey 2001; Donato et al. 2008). Therefore, the lower fertility rates in the period immediately preceding migration may be due periods of spousal separation. This would be evidenced by the absence of either contraceptive use or unintended births prior to migration, as women are abstinent during this period.

Differences among women across the migration process may also arise because of differential access to contraceptives, namely that hormonal contraceptives are available in Mexico without a prescription, whereas they are not in the United States. Coupled with immigrants' limited access to health care in the United States, these differences in access may explain fertility differentials in the pre- and post-migration periods. This would be evidenced by a decline in the most effective and non-reversible methods of contraceptive use following migration accompanied by no change or an increase in the proportion of unintended births.

## **Methods**

### *Data*

To document variations in fertility intentions and contraceptive use among Mexican immigrants, non-migrants in Mexico, and native-born groups in the United States, we use two nationally representative datasets from Mexico and the United States: the 2006-2008 National

Survey of Family Growth<sup>2</sup> and the Mexican Family Life Survey (MxFLS). Both surveys record detailed information about contraceptive practices and birth intentions. They also allow for an identification of the following key groups of women: pre-migrant women in Mexico, non-migrant women in Mexico, Mexican immigrant women in the United States (who can be additionally disaggregated by length of time in the United States), and Mexican American, white, black, and other Hispanic native-born groups.

The NSFG is a periodic survey collected by the National Center for Health Statistics with the primary goal of providing estimates of factors affecting the fertility behavior and reproductive health of U.S. women between the ages of 15 and 44 (U.S. DHHS, 2011). The 2006-2008 NSFG collected information for 7,356 women and 6,139 men. An advantage of the NSFG is that retrospective information about contraceptive use and birth histories allow Mexican immigrants to be observed across the distinct stages of the migration process: before and after migration.

The MxFLS is a longitudinal survey of households in Mexico collecting social, economic, demographic, and health information for 35,000 individuals residing in 8,400 households in 150 communities in 2002 and 2005 (Rubalcava and Teruel 2006a, 2006b). For the subsample of women between the ages 15 and 49, it also collected reproductive health histories, including detailed questions about contraceptive use. A key advantage to using the MxFLS is that pre-migrants can be identified in the first wave of data (in 2002) based on the migration status of women between the first and second waves (between 2002 and 2005). The MxFLS also provides our sample of non-migrants in Mexico, using the same information.

#### *Measurements of fertility behaviors*

*Fertility intention* is a dichotomous variable classifying births into two categories: (1) intended and (2) unintended births. The measure on intention status is developed on the basis of retrospective questions about the wantedness of each pregnancy. Studies have shown that wantedness is a better measure of fertility intention than contraceptive failure, as a large proportion of unplanned births are wanted following conception (Trussell et al. 1999).

*Contraceptive use* classifies respondent's current contraceptive use into five categories: (1) very effective, non-reversible (female and male sterilization), (2) very effective, reversible (pill, IUD, other hormonal methods), (3) effective (diaphragm, female condom, male condom), (4) less effective (periodic abstinence, withdrawal, and other methods), and (5) no method (seeking pregnancy, other reasons). This variable construction draws from a recent paper by Sweeney (2011).

#### *Analytical Plan*

The analysis has two parts. The first part documents variations in the fertility intentions and contraceptive use among Mexican immigrants, non-migrants in Mexico, and native-born groups in the United States. The second part describes how the fertility intentions and contraceptive use of Mexican immigrants changes across the distinct stages of the migration process. In each section, we conduct a series of comparisons that offer a direct test of the various explanations for the fertility differentials between Mexican immigrants and other groups, and later, for the shifts in fertility timing resulting due to migration.

The first part uses descriptive tabulations, life table estimates, and multivariate analyses to describe group variations in the fertility intentions and contraceptive behavior. We begin by comparing the fertility desire and contraceptive behavior of pre-migrants (i.e. Mexican immigrants before migration) to those of non-migrants living within and outside the pre-

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<sup>2</sup> The 2006-2010 NSFG files are scheduled to be released in October 31, 2011. Depending on data availability, we will use 2006-10 NSFG files to obtain a larger sample size of immigrants.

migrant's municipality of residence. This analysis will help us ascertain whether Mexican migration to the United States select individuals with higher levels of fertility. We then assess whether Mexican immigrants are less likely than native-born counterparts to use "very effective, reversible contraceptives", which can only be obtained with a prescription from a clinical provider. We follow this analysis with an examination of the variations in the fertility desires and contraceptive behavior between Mexican immigrants and native-born groups in the United States. This examination will help us determine whether the high fertility of Mexican immigrants are due to the disadvantageous economic positions and the consequent low opportunity costs of migration.

In the second part of the analysis, we will focus exclusively on Mexican immigrant women, further disaggregating the reproductive careers into five stages of the migration process: 2 pre-migration and 3 post-migration stages. We will compare the birth intentions and contraceptive behavior of immigrants in the two stages before the migration process to ascertain whether immigrants disrupt their fertility in anticipation of the migration process. We will then compare the fertility desire and contraceptive behavior of pre-migrants to those of non-migrants to determine whether spousal separation depresses the fertility of Mexican immigrants. We will compare the fertility intentions and contraceptive behavior of immigrants in the period immediately preceding and following migration to determine whether immigrants compensate for the earlier disruption in fertility.

Tables 1 and 2 summarizes the analyses that will be conducted in order to identify whether a mechanism contributes to the fertility differentials among Mexican immigrants, non-migrants in Mexico, and native-born groups in the United States and the shifts in fertility timing that result due to migration.

*Tables 1 and 2 go here.*

### **Preliminary analysis and Future Steps**

Table 3 present the results from preliminary analyses documenting variations in current contraceptive use by race, ethnicity, and migration status. We find that show that Mexican immigrants are less likely than the US-born to use *very effective, reversible* and *effective* methods of contraceptives. This pattern may arise because the very effective, reversible methods (all hormonal contraceptives) require that women receive regular care from clinical providers, and Mexican immigrants have limited access to health care, a hypothesis we will test in multivariate models. Comparing the contraceptive behavior of non-migrants in Mexico and Mexican immigrants prior to migration (pre-migrants) reveals that pre-migrants are less likely to use any form of contraceptives than non-migrants in Mexico, which is a pattern consistent with the view that Mexican migration to the United States may be positively selective of individuals who subscribe to pro-natalist norms.

*Table 3 goes here.*

We will conduct more rigorous analyses to identify the mechanisms giving rise to the fertility differentials among Mexican immigrants, non-migrants in Mexico, and native-born groups in the United States as well as the shifts in fertility timing resulting due to migration.

## References

- Andersson, G. 2004. "Childbearing after Migration: Fertility Patterns of Foreign-born Women in Sweden." *International Migration Review* 38(2): 747-777.
- Bongaarts, J. 1978. "A Framework for Analyzing Proximate Determinants of Fertility." *Population and Development Review* 4(1): 105-132.
- Carter, M. 2000. "Fertility of Mexican Immigrant Women in the U.S.: a closer look". *Social Science Quarterly* 81(1): 404-420.
- Cerrutti, M. and D. Massey. 2001. "On the Auspices of Female Migration from Mexico to the United States." *Demography* 38(2): 187-200.
- Choi, K. 2011. "Fertility Behavior of Mexican Immigrants; Before and After Migration." Working paper.
- CONAPO. 2009. "Principales Indicadores de Salud Reproductiva: ENADID 2009." Available at [http://www.conapo.gob.mx/index.php?option=com\\_content&view=article&id=455&Itemid=15](http://www.conapo.gob.mx/index.php?option=com_content&view=article&id=455&Itemid=15), last accessed 9/22/2011.
- Donato, Katharine M., Brandon Wagner, and Evelyn Patterson. 2008. "The Cat and Mouse Game at the Mexico-U.S. Border: Gendered Patterns and Recent Shifts." *International Migration Review* 42(2): 330-359.
- Durand, Jorge, Douglas Massey, and Rene Zenteno. 2001. "Mexican Immigration to the United States: Continuities and Change." *Latin American Research Review* 36(1): 107-127.
- Frank, R. and P. Heuveline. 2005. "A crossover in Mexican and Mexican-American fertility rates: Evidence of explanations for an emerging paradox." *Demographic Research* 12(4): 77-104.
- Ford, K. 1990. "Duration of Residence in the United States and the Fertility of U.S. Immigrants". *International Migration Review* 24(1): 34-68.
- Forste, R. and M. Tienda. "What's Behind Racial and Ethnic Fertility Differentials." *Population Development Review* 22: 109-133.
- Parrado, Emilio A. 2010. "How High is Hispanic/Mexican Fertility in the U.S.? Immigration and Tempo Considerations." *PSC Working Paper Series*, PSC 10-04.
- Parrado, E. and S.P. Morgan. 2008. "Intergenerational Fertility Among Hispanic Women: New Evidence of Immigrant Assimilation." *Demography* 45(3): 651-671.

- Potter, Joseph, Anne M. Moore, and Theresa L. Byrd. 2003. "Cross-Border Procurement of Contraception: Estimates from a Postpartum Survey in El Paso, Texas." *Contraception* 68(4): 281-287.
- Rubalcava, Luis and Graciela Teruel. 2006a. "User's Guide for the Mexican Family Life Survey First Wave." [www.mxfls.uia.mx](http://www.mxfls.uia.mx).
- Rubalcava, Luis and Graciela Teruel. 2006b. "Mexican Family Life Survey, Second Round." Working Paper, [www.ennvih-mxfls.org](http://www.ennvih-mxfls.org).
- Stephen, E. and F. Bean. 1992. "Assimilation, Disruption, and the Fertility of Mexican Origin Women in the United States." *International Migration Review* 26(1): 67-88.
- Sweeney, M.M. 2010. "The Reproductive Context of Cohabitation in the United States: Recent Change and Variation in Contraceptive Use." Working paper.
- Trussell, James, Barbara Vaughan, and Joseph Stanford. 1999. "Are All Contraceptive Failures Unintended Pregnancies? Evidence from the 1995 National Survey of Family Growth." *Family Planning Perspectives* 31(5): 246-247, 260.
- U.S. Department of Health and Human Services Centers for Disease Control and Prevention. December 2011. "Public Use Data File Documentation National Survey of Family Growth Cycle 6: 2006-2008 User's Guide." Hyattsville, Maryland: National Center for Health Statistics.
- Wilson, Ellen K. 2009. "Differences in Contraceptive use Across Generations of Migration Among Women of Mexican Origin." *Maternal and Child Health Journal* 13: 641-651.
- Yeatman, Sara, Joseph Potter and Daniel Grossman. 2006. "Over-the-Counter Access, Changing WHO Guidelines, and the Prevalence of Contraindicated Oral Contraceptive Use in Mexico." *Studies in Family Planning* 37(3): 197-204.



**Table 1. Explanations for the Fertility Differentials among Mexican immigrants, Non-migrants in Mexico, and Native-born Groups: Tests**

<b>Mechanisms</b>	<b>Data</b>	<b>Comparison Groups</b>	<b>Expected Outcomes</b>	
			<b>Fertility Intentions</b>	<b>Contraceptive Use</b>
<b>Migrant Selectivity</b>	MxFLS and NSFG	Non-migrants and pre-migrants in Mexico	Similar to local non-migrants/ Higher than national average	Similar to local non-migrants/ Lower than national average
<b>Birth control access</b>	MxFLS and NSFG	Non-migrants in Mexico, Mexican Immigrants, and Native Born in the United States	N/A	Lower rates of using "very effective, reversible" contraceptives
<b>SES Disparities</b>	NSFG	Mexican immigrants and native born in the United States	Immigrants have more intended births	Lower rates of (effective methods) contraceptive use

**Table 2. Explanations for Shifts in Fertility Timing due to Migration**

Mechanisms	Data	Comparisons	Expected Outcomes	
			Fertility Intentions	Contraceptive Use
<b>Postpone in anticipation of migration</b>	MxFLS and NSFG	2 pre-migration periods and non-migrants in Mexico	Drop in % of wanted births	Higher rates of using effective, reversible contraceptives
<b>Spousal Separation</b>	MxFLS	Period immediately preceding migration and non-migrants in Mexico	Lower (unwanted or wanted) births	Lower rates of contraceptive use
<b>Birth Control</b>	NSFG	Period immediately preceding and following migration	N/A	Lower rates of using "very effective" contraceptives requiring a clinical provider

**Table 3. Current Contraceptive Use by Race, Ethnicity, and Migration Status**

Method Use	White	Black	Mexican American	Mexican Immigrant, Post-Mig	Mexican immigrant, Pre-migration	Non-migrants in Mexico
Very effective, non-reversible	25	21	24	29	21	24
Very effective, reversible	29	22	26	20	20	18
Effective	14	15	17	12	2	5
Less Effective	5	3	4	5	0	4
No Method	27	39	29	35	56	49
Population at risk (N)	3,147	1,180	420	426	100	5,964

**Source:**

2006-08 NSFG (columns 1-4); MxFLS (columns 5-6)

**Notes:**

Analyses are weighted.

Population at risk consists of respondents who have ever had a sexual relationship.

*Post-Mig* denotes post-migration.