

Title: “Migrant children and Migrants’ children: Differentials in School Enrollment in Mexico”

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Abstract: Research on children’s well-being in the context of immigration has focused almost exclusively on the importance of migrant parents’ experiences and the expectation that children benefit from or are disadvantaged by the migration of others. But the growing prevalence of US-born children living in Mexico requires re-consideration of this more traditional model of the intergenerational consequences of migration. This paper draws on nationally representative household data in Mexico (ENADID: 2009) to examine differential school enrollment patterns among Mexican and US born children in Mexico. The results reveal that, adjusting for household resources and household-level migration experience, US born children lag behind in school enrollment at younger ages. The analyses provide some preliminary evidence that US born children encounter some structural barriers to school enrollment that are not shared by their Mexican born counterparts. However, the enrollment disadvantage is ameliorated somewhat among older children.

I. Introduction:

Research on migration and well-being has focused primarily on the migration of adults. When children are considered, it is often in terms of the net effect of parental migration on children’s access to resources or responses to family disruption caused by migration (Dreby, 2010). Increasingly, however, scholars are recognizing the role of children in the migration process itself and the need to consider the impacts on children across a diverse set of migration experiences. Child migrants occupy a unique position. On the one hand, they share the migration experience with adult migrants. But, child migrants also share some important socialization experiences with their peers in the country of settlement. For child migrants, entering school in the country of settlement means accruing skills and human capital valued by that society and can mean greater opportunities for socioeconomic attainment than for those migrants who never enter school in the country of settlement (Rumbaut, 2004; Oropesa & Landale, 2009).

The study of migration and children’s well-being is also usually focused on the country of settlement. This research examines the structural impediments to schooling among ‘foreign born’ children. Even in the case of long-term flows of migration such as those between the United States and Mexico research focus has been almost exclusively on outcomes in the country of settlement of migrant parents. “Despite the large-scale and sustained migration flows between Mexico and the United States in the 20th century, little is known about children’s health across different types of Mexican families that have a range of binational experiences.” (Donato & Duncan, 2011: 714).

This dearth of knowledge about the fate of children of migrants in Mexico is particularly notable for one of the fastest growing groups of children: US born children living in Mexico. Research on this subgroup is timely given the multiple factors in the US—the recession, the increasingly hostile immigration laws being passed at the state level—that are likely to cause this group to increase. These children occupy a unique niche in the transnational realm because they are migrants themselves and yet, more often than not, are living with family members who are natives to the children’s country of settlement. This turns the more traditional intergenerational pattern of migration and the attendant expectations for incorporation somewhat on its head.

This paper focuses on this growing group of children and examines differences in school enrollment when compared to Mexican born children in Mexico. We might expect US born children in Mexico to fare similarly to other Mexican children of returning migrants. It seems likely that these two groups of children face similar constraints imposed by having family members absent but they may also reap similar rewards in the form of remittances from internationally migrating relatives. Alternatively, we might expect there to be more barriers to school enrollment for US children in Mexico than their Mexican born counterparts regardless of the migration status of their families in general. Families can face difficulties navigating school enrollment procedures for their foreign born children in Mexico (Medina, 2012). If this is the case, the educational progress of US born children in Mexico may lag behind Mexican born children regardless of the migration experience of other household members. There is considerable variation in the educational outcomes among immigrants in the United States by age as well as a significant age pattern to school enrollment in general so it will be important to consider the possibility whether ‘nativity’ differentials in school enrollment in Mexico persist across age groups.

II. Background:

A. Return Migration to Mexico and US born Children

By 2010, foreign born residents in Mexico represented around 1% of the population. This represented a tripling in the size of the foreign born population in 20 years. Over half of the foreign born residents in Mexico in 2010 were children under age 15 (INEGI, 2012). Even though changes in border

enforcement may have decreased the prevalence of circular migration in the flows of immigrants between Mexico and the United States, (Massey, 2006), overall returns of immigrants from the United States to Mexico appear to have been on the rise from the early 2000s (Rendall, Brownell & Kups, 2011; Van Hook & Zhang, 2011; Zentano, 2011). Recent enforcement efforts have also resulted in more deportations than in previous decades. One net result of these patterns is an increase in the number of American citizen children living in Mexico with their parents. There is also a subgroup of US born children whose presence in Mexico is a result of being sent back to their parents' 'home' when migrant parents who do not return to the United States seek support and childcare from relatives in the origin communities (Orellana, et al., 2001). Although exact numbers are difficult to determine, Rendall and Torr (2008) estimated that 10% of second generation Mexican American children (i.e. children born in the United States to Mexican immigrant parents) spend at least some of their childhoods in Mexico (Rendall & Torr, 2008). The Census numbers, combined with anecdotal reports of increased school enrollment in schools on the Mexican side of the border, indicate that this number is still growing (Medina, 2012).

Although it is difficult to determine the direct effects of shifting immigration policies and return migration patterns, many deportees and voluntary returnees have long histories and family ties in the United States suggesting considerable disruption and incentives for attempts to return to the United States (Hagan, Eschbach & Rodriguez, 2008). Parental separation, residential moves and changes in caregiving arrangements combine to create a stressful situation for children of Mexican immigrants (Dreby, 2010). The majority of US born children living in Mexico are likely children of relatively recently return migrants. The majority of their parents are Mexican born who lived for some period of time in the United States. These migrant children experience moves across national contexts and educational systems; a pattern Zuniga and Hamann (2009) identify as 'sojourner students' who experience considerable disruption to their education as they enter schooling in multiple contexts. US born children of return migrants in Mexico may also experience frequently disrupted educations due to multiple moves. However, preliminary evidence also indicates that there are significant structural barriers to school enrollment facing US born children in the Mexican context if families do not or cannot produce required documentation for the children (Medina, 2012).

There is little research on the well-being of US born children in Mexico and it is not clear how they fit into the conceptual models of immigration and adaptation. Research on immigrant adaptation typically considers generation status vis-à-vis the timing of international migration. This work then compares the immigrants (i.e. first or 1.5 generation) to their counterparts who are the children or grandchildren of immigrants (i.e., second or third generations). Children of returning migrants do not fit neatly in this categorization of migration (King & Skeldon, 2011; Zuniga & Hamann, 2009). On the one hand, US born children in Mexico share the experience of migration and disruption with children who migrate to the United States. This may result in schooling delays and disruptions for US born children in Mexico when compared to Mexican born children in Mexico. On the other hand, unlike many Mexican born children in the United States, many US born children in Mexico will have parents and family members with direct experience in key social institutions including schools in the receiving context. These families may have an easier time facilitating their children's schooling and this may result in little variation in schooling patterns when compared to Mexican born children of migrants in Mexico.

Adjusting for the migration experience of families will be important in any analysis of US born children in Mexico. In addition, there may be systematic variation in the resources available to these children when compared to their Mexican born counterparts. If only immigrants who are economically unsuccessful in the United States return to Mexico then children of return migrants in Mexico might be expected to live in economic conditions below those of Mexican born children of non-migrants. But recent estimates point to more neutral economic selection and more family and life course factors influencing who emigrates from the United States (Van Hook & Zhang, 2011). And previous estimates suggest that U.S. born children in Mexico tend to be positively selected such that they come from families with higher stores of human capital than those born in Mexico (Rendall & Torr, 2008). But having young children in the United States appears to deter emigration to Mexico suggesting that those US born children who live in Mexico are not representative of immigrants' children overall. To understand the different educational outcomes among Mexican born and US born children in Mexico, it will be important to adjust for not only for migration status then but to adjust for differentials in economic resources in Mexico as well.

B. Immigration and Education

There is a great deal of research in the United States focused on the educational trajectories of children of immigrants (Glick & White, 2003; Rumbaut, 2004). Much of this research concludes that timing of migration, timing of entrance to school and the location of schooling all influence educational attainment among children of immigrants (Oropesa & Landale, 2009; Schnepf, 2007). For example, those immigrants who received some schooling in the United States tend to receive greater economic returns to their education than those who did not receive any schooling in the United States (Akresh, 2006; Jackson, Pebley & Goldman, 2010).

Mexican immigrants tend to have fewer years of completed education than Mexican Americans overall (White & Glick, 2009; Landale, Thomas & Van Hook, 2011). But, this varies by age at arrival and location of schooling as well. Mexican immigrants who arrive in the United States as adolescents frequently do not enroll in school in the United States at all (Oropesa & Landale, 2009). Among Mexican origin high school students in the United States, previous schooling experiences in Mexico play a role in achievement: Those who attended school in Mexico prior to entering school in the United States reported higher grades than students with no school experience in Mexico (Padilla & Gonzales, 2001). Similarly, a study comparing across diverse national settings concludes that children appear to do well when they are able to enter school in the receiving country at a young age, speak the same language as their peers in the receiving country and come from economically successful households (Schnepf, 2007). Among immigrants from Mexico to the United States, approximately one third of those who arrived before age 12 failed to earn a high school diploma as compared to two thirds of those who arrived between ages 12 and 18 (Baum & Flores, 2011). Immigrant youth who arrive at older ages and do not enter school in the receiving country, on the other hand, often do not fare as well (Rumbaut, 2004).

Although there is a great deal of research on children's exposure to the United States and their educational outcomes, it is not clear whether these experiences are replicated among those who move from the United States to Mexico. Mandatory schooling in Mexico now extends into secondary education suggesting the majority of children under age 15 or so will be attending school (Creighton & Park, 2010). One study demonstrated that second generation Mexican-American adolescents living in Mexico (i.e. the

1.5 generation from the Mexican viewpoint) had lower levels of school enrollment than their counterparts who remained in the United States. However, school enrollment among second generation Mexican-American adolescents was still higher in 2000 than their Mexican born peers in Mexico (Rendall & Torr, 2008). In other words, both groups of Mexican American youth had higher school enrollment rates than Mexican born youth regardless of country of residence. School enrollment among adolescents may vary by location in Mexico as the prevalence of US migrants in a community is associated with children's own educational aspirations (Kandel and Kao, 2000). And, children of migrants in Mexico tend to reduce their educational aspirations and attachment to schooling as they age (Kandel & Kao, 2001; Kandel & Massey, 2002).

C. Hypotheses

Based on the previous research on schooling in Mexico and educational pathways among child migrants, we use nationally representative data to test hypotheses about school enrollment among US born children living in Mexico. We model school enrollment among children age 5 – 17 in households throughout Mexico. The models consider the importance of place of birth (U.S. vs. Mexico) once we control for household resources that may also be important predictors of school attendance. Further, we expect school enrollment to decline around age 15 for all children because this is around the age at which compulsory education is completed in Mexico (Rendall & Torr, 2008).

Our first hypothesis focuses on the barriers to enrollment in Mexico for children born in the United States. Many families experience delays in being able to enroll their children in school due to the absence of required documents (Medina, 2012).

H1: US born children will have lower school enrollment than Mexican born children in Mexico once we control for family resources and recent migration from the household to the United States as well as the child's age.

Our second hypothesis is drawn from prior work illustrating a decrease in school enrollment among Mexican youth by age. Further, because US born children carry US citizenship, they and their parents may perceive greater potential returns to their education if they return to the United States as adults. This leads to our second hypothesis for moderating effects of nativity by age:

H2: US born children's school enrollment will lag behind their Mexican born peers at younger age. Persistence in school is expected to decline among Mexican born youth as they age resulting in fewer enrollment differentials among adolescents when we compare by place of birth.

III. Data and Methods:

Data for this study came from the 2009 Encuesta Nacional de la Dinámica Demográfica (ENADID), a nationally representative household survey conducted by Mexico's Instituto Nacional de Estadística y Geografía ($N = 343,887$). Face-to-face interviews were used to collect information on fertility, mortality, migration and other socio-demographic characteristics such as marital status, education, employment, and ownership of consumer goods. The ENADID also includes information on all household members. The data include information on migration status of all members even if they are absent from the household. After restricting our sample to children between the ages of 5 and 17, we excluded children born in countries other than Mexico or the United States ($n = 78$) and children missing data on any of the study variables ($n = 179$), resulting in a final sample of 88,371 children in 43,222 households and 13,340 neighborhoods.

Dependent variable. School enrollment was assessed for all household members five years of age or older by asking whether the individual currently attends school. The vast majority of children ages 5-17 are currently enrolled in school at the time of the survey (89.18%) but this varies by age with decreased enrollment observed for adolescents.

Primary independent variable. Nativity was assessed by asking the state or country (if not Mexico) in which the individual was born ($0 = Mexico$, $1 = U.S.$; 1.12% born in U.S.). Children born in countries other than Mexico or the U.S. were not included in the sample.

Other independent variables. We included several measures that may also be associated with school enrollment in the Mexican context. First, we consider the migration experience for the children's households overall. Our preliminary analyses rely on a single measure indicating whether any household member moved to the U.S. in the last five years ($1 = yes$; 6.04%). We also consider the availability of other resources. These measures include household size (total number of individuals living in the home;

$M = 5.30$, $SD = 1.93$), and education level of the head of household: 0 = *no education* (7.44%), 1 = *6 or fewer years of schooling* (37.52%), 2 = *7 to 9 years of schooling* (26.05%), 3 = *more than 9 years of schooling* (28.99%).¹ There is a great deal of variation in household economic conditions across Mexico and represented in the ENADID dataset. To capture the status of the entire household, we follow prior research that also employed the ENADID (Azevedo, Lopez-Calva, and Perova 2012) and construct an asset index using principal components analysis. Items included roof made of solid material, non-dirt floor in majority of home, access to water, use of fuel other than firewood for cooking, flush toilet, refrigerator, washing machine, car, phone line, and computer. Higher values indicate greater assets and material well-being for the household ($M = 2.17$, $SD = .81$). Finally, we include demographic characteristics of the children themselves. Child age is a continuous measure in years ($M = 11.15$, $SD = 3.72$). We also include an indicator for child gender (1 = *male*, 50.94% male). Gender differentials in education have decreased considerably in Mexico but the timing of school leaving may still vary somewhat by gender (Creighton & Park, 2010).

The analyses are conducted in STATA which allows for appropriate consideration of the clustering of children within households as well as the clustering of households within neighborhoods. All models were estimated with Stata's command for fitting multilevel modeling with binary response variables (i.e., *xtmelogit*), with *students* serving as Level 1, *households* serving as Level 2, and *neighborhoods* serving as Level 3.

IV. Preliminary Results and Next Steps

The Table below presents the results of our preliminary multilevel models predicting the school enrollment of children between the ages of 5 and 17. In Model 1, we regressed school enrollment on child nativity to gauge unconditional differences in enrollment levels between children born in the U.S. and their Mexican-born peers. We found that U.S.-born children had significantly higher levels of school enrollment than their Mexican-born counterparts. This first model, however, does not adjust for differentials we hypothesize will be associated with household migration experience or child's age.

¹ The head of the household was a parent in 82% of cases and a grandparent in 13% of cases. Subsequent analyses will include children's relationship to the householder as well as more detailed information on parental absence from the homes.

Model 2 added household migration and child age to assess the extent to which these factors explained nativity differences in enrollment. After including these variables, U.S.-born children had *lower* levels of enrollment than Mexican-born children, although the difference was not statistically significant. The change in the sign of the nativity coefficient between Models 1 and 2 was attributed to the greater likelihood of U.S.-born children to live in migrant-sending households (18.55%) compared to Mexican-born children (5.90%) and to the overall younger ages of the U.S.-born children ($M = 9.80$) compared to Mexican-born children ($M = 11.17$). Children in households that have not sent migrants to the United States in the last five years and younger children have a greater likelihood of school enrollment overall.

In Model 3, we added the remaining control variables to help account for demographic variability and selection. These control variables were all significantly associated with school enrollment. Children living in larger households were less likely to be enrolled in school. Significantly higher levels of enrollment were found among children with more assets and with more educated heads of households. We also found some gender differentials in school enrollment such that boys are somewhat less likely to be enrolled in school net of the other variables in the models.

After including the demographic controls and measures of migration and household assets, the lower enrollment levels of U.S.-born children compared to Mexican-born children was statistically significant. The increase in the U.S.-born coefficient between Models 2 and 3 was attributed primarily to the greater household assets of U.S.-born children ($M = 2.52$) compared to Mexican-born children ($M = 2.17$). In other words, at the same levels of household assets, US born children are less likely to be enrolled in school than their Mexican born counterparts.

Our final model provides a preliminary test for our hypothesis that the disadvantage in school enrollment among US born children will be concentrated at the younger ages. At older ages, where school leaving is more normative, we expected fewer differentials. Model 4 added a multiplicative interaction between nativity and child age to examine whether differences in the enrollment of U.S.- and Mexican-born children varied by age. We found that child age significantly moderated nativity differences in enrollment. Interpreting this interaction by estimating enrollment for U.S.- and Mexican-born children

varying in age (i.e., one standard deviation below and above the mean) suggested that the Mexican-born advantage in enrollment is greater among younger children than older children.

Results from Multilevel Models Predicting School Enrollment ($N = 88,371$)

	Model 1	Model 2	Model 3	Model 4
Child nativity (U.S. born)	.28* (.14)	-.26 (.16)	-.52*** (.15)	-2.91*** (.44)
Migrant-sending household ^a		-.36*** (.07)	-.19** (.06)	-.18** (.06)
Child age in years		-.39*** (.01)	-.40*** (.01)	-.40*** (.01)
Child sex (male)			-.09*** (.03)	-.09*** (.03)
Household size			-.08*** (.01)	-.08*** (.01)
Head of household education ^b				
Six or fewer years			.21*** (.05)	.21*** (.05)
Seven to nine years			.68*** (.06)	.68*** (.06)
More than nine years			1.44*** (.07)	1.44*** (.07)
Household assets			.69*** (.02)	.69*** (.02)
U.S. born x child age				.20*** (.04)

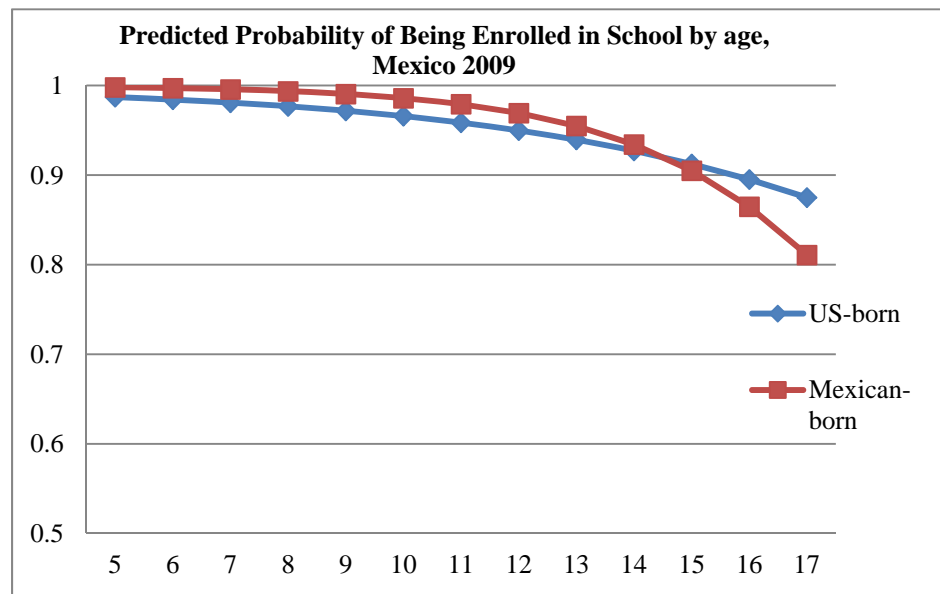
Note. Data source: 2009 ENADID. Unstandardized coefficients with standard errors in parentheses.

^a Household member moved to U.S. in the last five years. ^b Reference category is no education.

* $p < .05$. ** $p < .01$. *** $p < .001$.

These preliminary results suggest that children born in the United States living in Mexico in 2009 are somewhat less likely to be enrolled in school than their Mexican born peers once we adjust for the younger age composition of the US born children. Further, it appears that this disadvantage would be even larger if the US born children were not over-represented among households with more assets and better educated household heads. This suggests some preliminary support for the hypothesis that US born children encounter some structural barriers to school enrollment that are not shared by their Mexican born counterparts. However, the interaction term with age also indicates that the enrollment disadvantage is ameliorated somewhat among older children. This may be due to declines in enrollment among Mexican born children at older ages or to increasing enrollment among older US born children when compared to their younger counterparts. Examining the coefficients, the age tipping point at which US-born and Mexican-born children have equal likelihood of enrollment (net of other factors) is at age 15 ($2.91/.20 = 14.55$): the last year of mandatory schooling in Mexico. This suggests a mechanism such that children

born in the US may have parents who recognize the returns to higher education that their children may be able to realize. Given these children's US citizenship by birthright, these children may have more opportunity to use their higher levels of human capital in the labor market if they were to return to the US. Yet, Mexican-born children who choose to migrate to the United States would be unlikely to receive legal entry to the US and would be more likely to be confined to work in the informal economy, where the economic returns to education are lower. The figure below illustrates the predicted probabilities of school enrollment by age based on this preliminary analysis:



The next steps in our analyses will be to consider the migration status of children's households in greater detail with particular attention to parental absence. The preliminary models presented above relied solely on an indicator of whether anyone had migrated to the United States in the last five years. But the ENADID data are sufficiently detailed to allow us to ascertain the migration status of children's parents, their absence from the household and the extent to which children are living with grandparents or other relatives while parents are in the United States. Additional analyses will consider whether enrollment differentials are diminished when household composition (i.e., multi-generational households, household in which parents are not present, etc.) is more completely specified (Landale, Thomas, Van Hook, 2011). We will also consider the extent to which the age pattern of enrollment is more greatly differentiated among Mexican born children in migrant sending households with absent parents.

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