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Unauthorized Immigrant Parents:

Do Their Migration Histories

Limit Their Children's Education?

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Report Abstract

One of the thorniest issues involving unauthorized immigrants is the situation of their children, the majority of whom are born in the United States. This research focuses on Mexican immigrants, who are a majority of the country's estimated 11 million unauthorized migrants. We show that their trajectory of obtaining legal and citizenship status affects their children's educational outcomes, and that the children who get the least schooling are those whose parents, especially their mothers, remain unauthorized. Pathways to legalization thus do matter, not just for the immigrants themselves but also more broadly for the new generation of Mexican American citizens of this country.

Unauthorized Immigrant Parents: Do Their Migration Histories Limit Their Children's Education?

What to do about unauthorized migrants continues to be a contentious and consequential U.S. public policy issue. Should the United States offer pathways to legalization to allow unauthorized migrants to participate fully in U.S. society? How high a price should the country set for such pathways? Should it require further proof of legal status for employment in hopes that the unauthorized will leave the country in the midst of greater hardship? Before deciding on any particular set of policy options, we should first ask how much legalization matters. That is, how much does NOT having pathways to legalization handicap unauthorized immigrants and their children? We address this question by assessing how changes in Mexican-immigrant parents' legal status affect their children's educational attainment.

- This study is the first to show systematically that for the children of Mexican immigrants, the disadvantages of growing up with unauthorized parents persist into adulthood. The offspring of the unauthorized get significantly less education than those whose parents migrate legally or manage to legalize. Moreover, the number of children with unauthorized parents is sizeable and appears likely to grow.

- The children of Mexican immigrants average 13 years of education, according to survey data from greater Los Angeles. But children whose parents have never legalized average about two fewer years of schooling than those with legal or citizen parents. In other words, the children of unauthorized immigrants typically do not graduate from high school. Statistical controls eliminate only part of that gap.

- The key difference is not whether the Mexican parents entered the United States without papers but whether they *remained* unauthorized. The amount of schooling rises substantially when either parent or both – but in particular, mothers – find ways to become legal permanent residents. Educational levels go up slightly further still when the parents naturalize.

- By current estimates, about half of the children of Mexican immigrants in the United States, or 3.8 million children, have an unauthorized parent. Until the onset of the Great Recession, this number was growing, and it is likely to do so again as the job market recovers. By not providing pathways to legalization, the United States not only risks creating an underclass, but also fails to develop a potentially valuable human resource.

One of the bedrock issues in public policy debates about immigration reform in the United States involves the question of whether to provide legal residency to an estimated 11 million unauthorized immigrants currently residing in the country. Simply as a practical matter, 11 million persons living in the shadows cannot easily or cheaply be rounded up and sent elsewhere. Some legislators and immigration restrictionists argue, however, that at least some measure of punishment should be meted out before unauthorized migrants are allowed to avail themselves of any legalization program. This idea is often accompanied by assumptions that greater enforcement of current laws and additional economic and social restrictions will persuade unauthorized immigrants to return to their home countries. But most evidence suggests that immigrants fail to respond to such policies. In the 25 years since the last major legalization program — the Immigration Reform and Control Act (IRCA) of 1986 — the unauthorized population grew continuously until the Great Recession of 2008, in spite of increasing enforcement along the U.S.-Mexico border and greater restrictions within localities and states (Massey, Durand and Malone 2002; Passel and Cohn 2011).

If most are here to stay, what policies for dealing with the large population of unauthorized migrants best serve the United States' long-term interests? Here we consider the consequences of excluding a significant number of people from full participation in U.S. society versus providing pathways to legal standing. Little research addresses the question of whether not being able to legalize handicaps these immigrants and their children. While a few case studies portray the heart-rending difficulties the unauthorized and their children face, such research cannot speak to the key policy-relevant analytical issue of how much legalization (or other migration/citizenship transitions) affects immigrants' children and U.S. society as a whole.

This brief presents evidence that pathways to legalization do matter. Our research findings indicate that prolonged unauthorized status, per se, does in fact limit the education of

Mexican immigrants' children, most of who are born in the United States. Specifically, we find that children of legalized Mexican immigrants average at least one more year of schooling than children whose parents, especially mothers, remain unauthorized. In other words, immigration policies that do not provide pathways to legal residency limit the educational progress of immigrant children, whose numbers are large enough that they constitute a significant potential resource for the future U.S. workforce.

Mexican Immigration and Multiple Pathways to Incorporation

We focus on Mexican immigrants because they comprise by far the largest U.S.-immigrant group in general, and because so many of them come without papers (Bean and Stevens 2003; Passel and Cohn 2011). Likewise, Mexican-origin children account for a large majority of children with an unauthorized immigrant parent. According to current estimates, 70 percent of the 5.5 million children of unauthorized immigrants in the United States have a Mexican-born parent (Passel and Cohn 2011). These estimates imply that more than half of the 7.3 million children of Mexican immigrants residing in the United States in 2010 had an unauthorized parent (King et al. 2010; Passel and Cohn 2011).

Most children of unauthorized parents, about 80 percent as of 2009, are born in the United States and are thus U.S. citizens (Passel and Cohn 2009). Even though U.S.-born children of immigrants presumably enjoy access to the same education and jobs as any other citizen, their parents' migration-status histories reflect their first membership experiences with the host society (Hochschild and Mollenkopf 2009); such experiences likely have lasting effects on second-generation children. So while more targeted policy proposals such as the Dream Act may address the situations of children who are themselves unauthorized, policies directed at the unauthorized population as a whole in fact may affect both immigrants and their native-born children.

Mexican immigrants also are distinctive in terms of the variety of pathways they traverse to achieve legal status when they are able to do so. An unauthorized entrant might marry a U.S. citizen and become a legal permanent resident (LPR). Conversely, some who enter legally with a temporary visa stay beyond its expiration date and become unauthorized. Others who enter with a visa might subsequently acquire LPR status. And some of those with LPR status may eventually naturalize and become U.S. citizens. Policy makers and scholars alike typically oversimplify the issue of legality into legal versus illegal as if entry status remained unchanged throughout an immigrant's lifetime. Here we consider not only immigrant parents' entry statuses but also their subsequent migration statuses (i.e., whether they were initially unauthorized and whether they later legalized or naturalized). Moreover, such experiences affect the whole family, not just the individual. Because migration status may be dynamic and may differ for parents who often migrated years apart, it is important to examine the combined status trajectories of the parents. While a similar diversity of pathways may exist among the much smaller Central American groups, such multiple trajectories do not characterize major Asian-origin groups, who more often enter the United States legally with all family members at once.

Different reasons for migrating make for varying parental legal status trajectories among couples. More Mexican migrants to the United States have traditionally circulated back and forth between the two countries compared to other migrants (Cornelius 1992; Portes and Bach 1985; Massey et al. 2002). Circular migrants often change their orientations over time, gradually becoming permanent migrants (Roberts 1995), in a process that may occur over many years (Menjívar 2006; Roberts, Frank and Lozano-Ascencio 1999). As migrants move from sojourner to settler status (Chavez 1988), their frames of reference shift from the society of origin toward the society of destination. Thus, when poor, unskilled labor migrants (especially males) who initially migrate for temporary employment begin the transition to more permanent work, they

often seek ways to legalize. The family reunification provisions of U.S. immigration laws encourage the development of complex family-based strategies for achieving legalization (Curiel 2004; Glick 2010; Hondagneu-Sotelo 1994).

Four scenarios provide examples of legalization incentives. The first derives simply from many Mexicans initially coming as unauthorized entrants (Cerrutti and Massey 2004; Massey et al. 1987). They are thus unusually vulnerable (Coutin 2000; Menjívar 2006; Chavez 1998) but can alleviate this situation through legal permanent residency, or a "green card." Second, because young males disproportionately participate in unauthorized flows, they in particular have incentives to obtain green cards, initially to facilitate circular migration and later to enable their spouses to join them in the United States (Massey, Goldring, and Durand 1994). Third, if both members of a married couple have come to work, leaving their children behind with relatives, at least one needs LPR status to bring the children legally (Bean, Vernez and Keely 1989; Dreby 2010). And fourth, if such a married couple were to give birth in the United States, that U.S.-citizen child may help root them in the country, thereby spurring at least one of them to pursue legalization that would enable the non-U.S.-born children to migrate (Motomura 2006; Dreby 2010). Mexicans are thus diverse both in initial form of entry and in not having finished the often lengthy process of moving from sojourner to legal settler (Roberts, Frank and Lozano-Ascencio 1999). The pathways they adopt to legalization and naturalization are similarly heterogeneous. As a result, their family structures reflect a wide variety of parental combinations of entry and subsequent legalization and naturalization statuses.

How might such legal status trajectories relate to educational attainment among their children? Numerous studies have documented the deleterious effects of being unauthorized, especially in the labor market (Massey 1987; Massey et al. 2002; Hall, Greenman and Farkas 2010; Gonzales 2011). Recent studies have also found negative psychological consequences for

the children of unauthorized immigrants, including stress and other anxieties that inhibit learning

and cognitive development (Yoshikawa 2011). Such factors may also limit children's

educational attainment. We focus on educational attainment because it is a key determinant of

labor market outcomes. Differences in levels of schooling substantially explain nativity

differences in employment and earnings between many immigrant groups and whites (Duncan,

Hotz and Trejo 2006; Smith and Edmonston 1997), which is why education is the crucial factor

on which Mexican immigrant-group incorporation turns (Telles and Ortiz 2008). Given high

rates of unauthorized status, Mexican immigrants and their children often exist on the margins of

society, and their incorporation processes take considerably longer than those of other immigrant

groups (Bean and Stevens 2003; Brown 2007; Bean et al. 2011). Because Mexican immigrants

make up an essential part of the country's supply of less-skilled labor (Brown, Bachmeier and

Bean 2009), the policy challenge to the United States is incorporating them sufficiently so that

the benefits from their labor outweigh the cost.

Data and Research Approach

To assess how combinations of legal status trajectories matter, we use unique data from a

survey called Immigration and Intergenerational Mobility in Metropolitan Los Angeles

(IIMMLA; see the Methodological Appendix, Section 1, for more details). One of the most

distinctive features of the IIMMLA data is the information it obtained from the second-

generation respondents about the migration status of each parent when that person first came to

the United States. While we describe the survey respondents as "second generation," which

typically refers to persons born in the United States to immigrant parents, the sample also

includes immigrants who arrived in the United States as children younger than 15 years of age.

Very few of these respondents were themselves unauthorized, and their status does not affect the

results. They answered questions about parents' legal and citizenship status at the time the

respondent was interviewed. The resulting responses thus enable the comparison of migration

statuses at time-of-entry and at time-of-interview. We use this information to construct

nativity/entry/legalization/citizenship status trajectories for both parents of each respondent (see

Methodological Appendix, Section 2). These often vary considerably within and across couples,

since parents may not have arrived together in the United States. In some cases respondents

either had never known one of their parents or did not know their parents' initial migration

status. Other parents had never lived in the United States. Still others had come as unauthorized

entrants and then had become legal permanent residents. Some of these eventually naturalized.

The percentages of parents in various such trajectories are shown in Table 1. Mexican parents

are highly likely to have been unauthorized when they came to the country: 34.2 percent of

Mexican mothers and 32.8 percent of Mexican fathers in the sample.

Table 1. Percentage of Immigrant Mothers and Fathers with Various Nativity/Migration and Legalization/Citizenship Trajectories, Mexican-Origin Parents

Trajectory	Mothers	Fathers
Unknown	1.0	6.4
Never Migrated to U.S.	8.7	12.7
Authorized to Naturalized	32.1	25.6
Authorized to LPR	13.7	12.6
Unauthorized (or Unknown) to Naturalized	14.8	16.3
Unauthorized (or Unknown) to LPR	15.2	12.2
Unauthorized (or Unknown) to Unauthorized	4.2	4.3
U.S. Born	10.5	9.9
(N = 935)		

Source: Immigrant Intergenerational Mobility in Metropolitan Los Angeles (IIMMLA) Study.

Our first research question concerns the extent to which the parents reveal multiple

combinations of entry and migration statuses, and our second question concerns whether these

relate to their children's schooling. Rather than impose an arbitrary classification scheme on

entry and other statuses for mothers and fathers separately, or for the couple, we instead allow actual empirical clusters (combinations) of mother and father status combinations to emerge from the data among the parents of the respondents (see Methodological Appendix, Section 3, for more details). Because a high proportion of Mexican immigrant parents at any point are still making the transition from temporary to permanent immigrant, and because U.S. immigration policy is so complicated that it encourages multiple legal entry strategies (Council on Foreign Relations 2009), we expect Mexicans to show multiple, parental mixed-status combinations of entry and legalization/citizenship statuses. We then examine how these various parental mixed-status categories relate to children's educational attainment. We do this by gauging the extent to which children's schooling varies by parents' status category, controlling for parents' antecedent factors and respondent's characteristics. In other words, we examine educational differences among the children of immigrants across combinations of parents' migration statuses, controlling for factors that may affect which of these combinations the parents sort themselves into (see Methodological Appendix, Section 4, for details).

Findings

The members of the Mexican-immigrant generation and their children reveal characteristics typical of their form of migration. For example, nearly three decades after they migrated to the United States, the Mexican parents still have mostly not finished high school (averaging only a little more than eight-and-a-half years of schooling) (see Table 2). The Mexican-American young adult respondents, by contrast, are much better educated than their parents, having completed 13 years of schooling on average. Many of these Mexican-Americans did not speak English at home while growing up (although most also learned English), and nearly three-fourths lived with both parents. Also, a noticeable proportion of their parents had

returned to Mexico after migrating for at least six months, a pattern consistent with sojourner

migration (Chavez 1988; Massey 1987).

**Table 2. Means and Standard Deviations for Respondent and Parent Characteristics**

Attributes	Respondents	
	means	s. d's.
Age	27.8	0.194
Years of education completed	13.0	0.077
Male	0.50	0.016
Second generation	0.67	0.015
Spoke Spanish at home while growing up	0.91	0.009
Enrolled in school at interview	0.30	0.015
Lived with both parents while growing up	0.72	0.015

	Mothers		Fathers	
	means	s. d's.	means	s. d's.
Years of education	8.7	0.125	8.6	0.133
Held laborer occupation in home country	0.24	0.014	0.50	0.016
Worked in white collar occupation in home country	0.21	0.013	0.17	0.012
Migrated from West Central Region of Mexico	0.52	0.016	0.51	0.016
Returned to home country for 6+ months after migration to U.S.	0.15	0.012	0.15	0.012

Source: Immigrant Intergenerational Mobility in Metropolitan Los Angeles (IIMMLA) Study.

The parents of the second generation are characterized by seven mixed-status

combinations. These show considerable diversity in mother/father migration-status patterns. For

example, two of the combinations involve either all of the fathers (but not all of the mothers)

being citizens (either being born in the U.S. or having naturalized), or all of the mothers (but not

all of the fathers) being citizens. We label these Father-Citizens and Mother-Citizens,

respectively. Twenty-four and 13.9 percent of the Mexican parental combinations fall into these

groups (Figure 1). Also, two additional combinations involve both parents becoming legal

permanent residents with many (slightly less than half) having naturalized, although not quickly.

In one of these groups, almost all of the parents had entered legally, and in the other almost none of them had. We term these the Legal Permanent Residents (LPRs) (17 percent) and the Unauthorized Entrants Who Legalized (17.1 percent). Two somewhat idiosyncratic classes also emerge, again with mother-father differentiation, each showing substantial unauthorized entry and subsequent universal attainment of legal permanent resident status with some naturalization. But in each of these classes, only one parent had achieved legal status, either the father or the mother. These groups are Fathers Unauthorized Mothers Legalized (4.5 percent) and Mothers Unauthorized Fathers Legalized (14.1 percent). The remaining group (9.3 percent of the sample) consists of parents who either had entered or remained unauthorized, or parents whose status was unknown (Mother Unauthorized and Father Unauthorized).
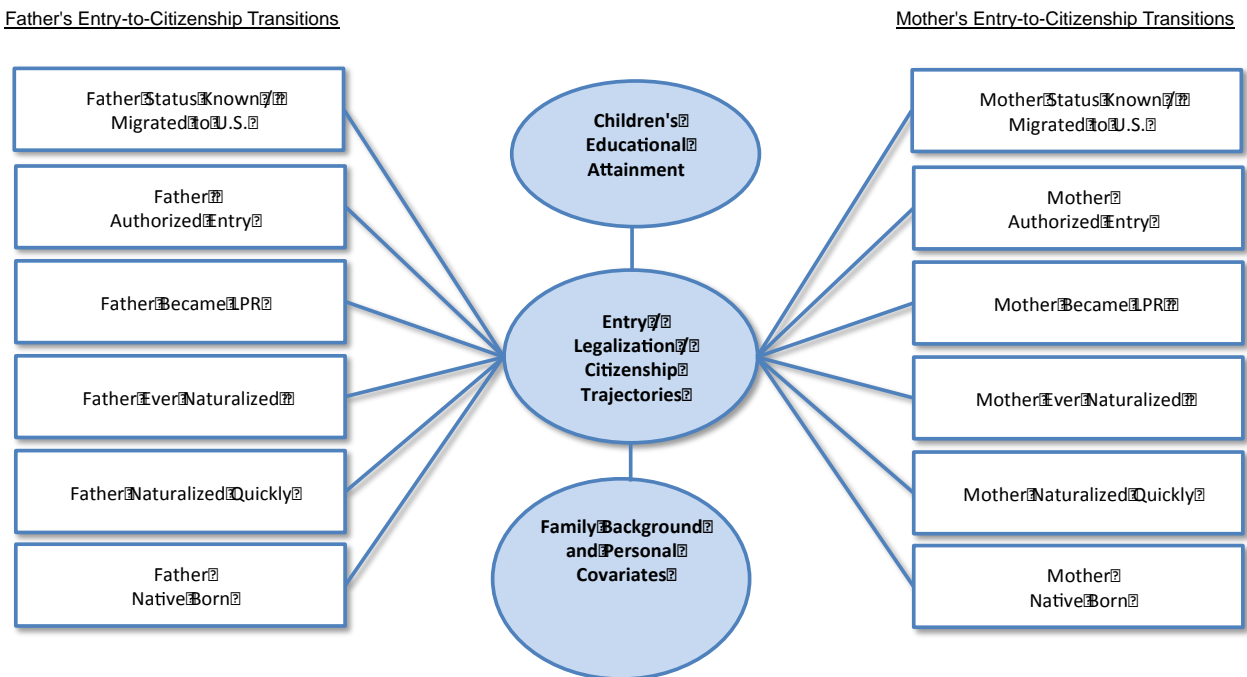

Figure 1. Parental Mixed-Status Combinations
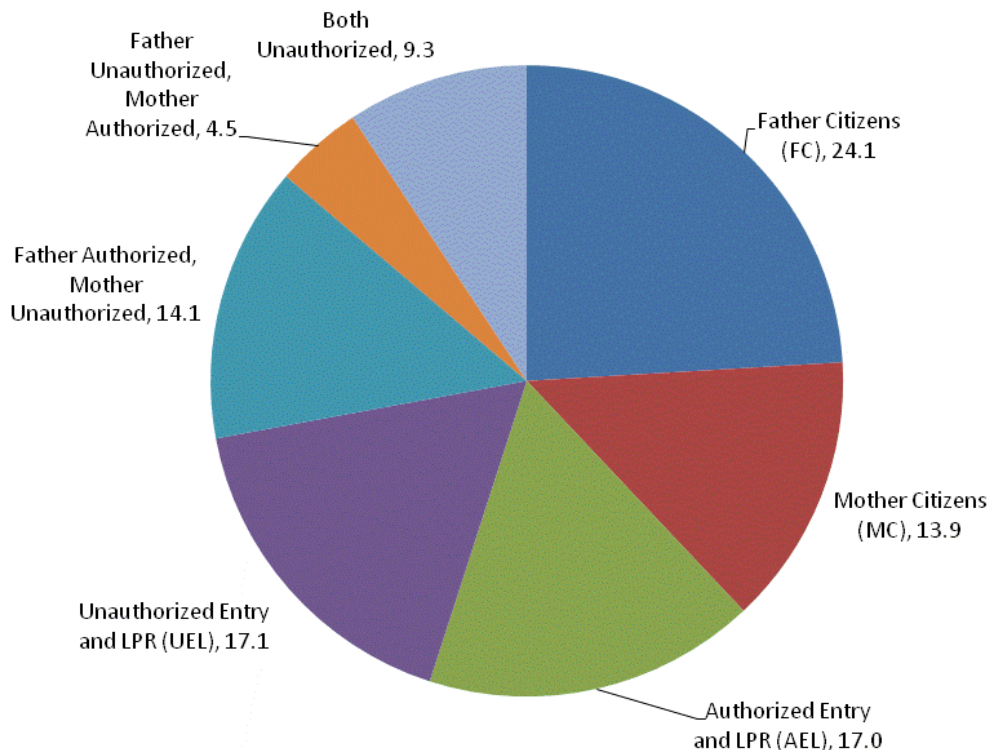
To ascertain if the parental mixed-status groups affect the education levels of their children, we first examine how parents' backgrounds were related to their legal status group by

estimating a multinomial logistic regression model that regresses group membership on variables

affecting the mother's and father's past. These background indicators include each parent's

education and occupation in Mexico; the region of origin in Mexico; whether the parent had

returned to Mexico; and whether the parents had lived together for most of the respondent's

childhood. The overall modeling framework that serves as a guide for the estimations is shown

in Figure 2. The results reveal patterns consistent with the mixed-status nature of the classes.

For example, when parents (especially fathers) are better educated, never worked in Mexico as

laborers, both lived with the child while the child was growing up, and had not returned to

Mexico, parents are more likely to be in the Mother-Citizens or Father-Citizens combinations.

Figure 2. Theoretical Framework for Parental Mixed-Status Effects on Children's Attainment

Father's Entry-to-Citizenship Transitions   Mother's Entry-to-Citizenship Transitions

Father Status Known / Migrated to U.S.		Mother Status Known / Migrated to U.S.
Father Authorized Entry	Children's Educational Attainment	Mother Authorized Entry
Father Became LPR		Mother Became LPR
Father Ever Naturalized	Entry / Legalization / Citizenship Trajectories	Mother Ever Naturalized
Father Naturalized Quickly		Mother Naturalized Quickly
Father Native Born	Family Background and Personal Covariates	Mother Native Born

Source: Immigrant Intergenerational Mobility in Metropolitan Los Angeles (IIMMLA) Study

We next assess how the parental mixed-status groups relate to education among the adult

children of the immigrants by modeling the second-generation respondent's education (measured

as years of schooling) using parental mixed-status combinations, with those with persistently

unauthorized parents as the reference group. The regression coefficients thus reflect the

education premium to the second generation associated with their parents holding various kinds

of legal status. We first estimate a model without any covariates, or controls.   In this unadjusted

case, children who had at least one legal-immigrant parent show a significant educational

advantage relative to the children whose parents who remained unauthorized or whose status was

unknown. The advantage ran to more than two-and-a-half years of schooling for those in the

father-citizen group (first column, Table 3). Results statistically adjusted for differences in

background factors are shown in the second column of Table 3 (for details see Methodological

Appendix, Section 5).

Table 3. Regression Models Showing Relationships between Parents Mixed-Status Categories and Respondent's Years of Schooling

	Unadjusted		Adjusted	
Mexicans				
Father Citizens (FC)	2.60	***	1.15	***
Mother Citizens (MC)	2.47	***	1.53	***
Authorized Entry and LPR (AEL)	2.19	***	1.10	***
Unauthorized Entry and LPR (UEL)	2.31	***	1.36	***
Mother Unauthorized, Father Legal (MUFL)	2.03	***	1.16	***
Father Unauthorized, Mother Legal (FUML)	0.87	**	-0.36	*
F Value	17.78	***	18.03	***
R-squared	0.10		0.28	

* p-value<0.10; ** p-value<0.05; *** p-value<.01

Five of the six groups still exhibit at least a full year or more of education than those

whose parents who remained unauthorized. Most important, however, the differences are not

fully explainable by the adjustments. Although a considerable portion of the schooling premium

(averaging roughly 50 percent across the groups) can be accounted for by other kinds of influence, about half of the average education difference remains.

One combination stands out for the schooling advantage it conveys to offspring: the Mother-Citizens group. Upon close inspection, however, we note that this group is quite distinctive. Two-thirds of the mothers in this group are native-born. The other third entered the country as LPRs (none illegally) and all quickly naturalized. And many of the mothers (40 percent) married unauthorized males, a figure that testifies both to the ubiquity of unauthorized Mexican male labor migration and to the fact that when such migrants marry natives they gain eligibility for "green card" status. It is not surprising that adult children with parents like these show the highest levels of education. With so many native-born mothers, this group is so relatively mobile that it provides an upper-bound benchmark of the consequences of the process. As a result, we limit our attention to the members of the other parental groups.

The predominant difference in education across these groups hinges on whether the mother has legal status or not. All of the respondents whose parents are in groups with legal mothers show higher schooling than those whose parents are in the groups with unauthorized mothers. The gross schooling difference for the offspring of these two sets of mothers is 2.04 years. When all statistical adjustments are implemented, the difference shrinks to 1.51 years, which is still highly statistically significant. The educational advantage resulting from mother's legalization thus does not appear to owe substantially to other kinds of differences between mixed-status groups with these two kinds of mothers. However, there nonetheless remains the possibility that the association between mother's legalization and children's education could still be spurious, i.e. correlated with something not observed in this research, such as the parents' level of initiative. Controlling for such unobserved factors is difficult, but one approach that sometimes helps involves using what are called <u>instrumental</u> <u>variables</u>. We follow this approach

by taking advantage of the fact that many parents legalized through the 1986 Immigration Reform and Control Act (IRCA. For more details see the Methodological Appendix, Section 6.)

Recall that respondents whose parents are in the group in which mothers attained legal-permanent residence status show an unadjusted schooling advantage of about two years compared to those whose mothers were unauthorized. The estimate of this difference, after adjusting for multiple factors, is about one-and-one-half years of schooling. Now, after using the instrumental variables approach, the premium is about one-and-one-quarter years (1.24) years. In other words, controlling only for factors that we can observe in the data reduces the education premium of mother's legal status by about one-third (from 2.04 to 1.51 years). Taking IRCA legalization into account and adjusting further for unobserved factors reduces the premium by about another one-sixth (from 1.51 years to 1.24 years). Because a substantial difference of nearly one-and-one-quarter years of schooling still remains, the influence on education of unobserved factors captured by the instrumental variables approach does not appear to reduce appreciably the educational advantage associated with mother's achieving legal status.

What is the Extent of Educational Disadvantage?

How widespread is the educational disadvantage resulting from parental unauthorized status? A reasonable first question in this regard is to ask whether the disadvantage equally characterizes the experiences of both males and females. Because males are disproportionately the primary instigators of the process of labor migration (seeking to come to the United States expressly to work), one might think any tendency to seek employment instead of continuing schooling might extend more to sons than daughters (Bachmeier and Bean 2012). However, when we examined results for educational attainment separately for the male and female children of Mexican immigrants, we found no significant gender differences.

A second issue concerns the number of unauthorized Mexicans immigrants in the country and how many children they have. From IRCA's passage in 1986 until the onset of the "Great Recession" in 2008, unauthorized migration from Mexico continued to increase, especially during the boom years of the 1990s and 2000s. The most recent population estimates indicate about 6.5 million such Mexicans were living in the United States in early 2010 (Passel and Cohn 2011). Their children, some born in Mexico but most in this country, number about 3.85 million (Passel and Cohn 2011). These unauthorized migrants have few pathways to legalization and a long wait when a pathway is available. Over the past two decades, the waiting time for Mexican applicants to obtain legal permanent residence through the family reunification provisions has gone from about two years to five years (Bachmeier et al. 2011; U.S. Department of State 2011).

Conclusions and Policy Implications

Entry status and subsequent status transitions of Mexican immigrants carry significant implications for the success of their children. Our analyses show that without opportunities for legal residency, Mexican immigrants traverse multiple and complex trajectories to full societal membership; roadblocks to this journey matter for educational outcomes in the second generation. In the absence of immigration reform, it seems likely that a greater proportion of the current unauthorized population would have to remain unauthorized for a longer period than their predecessors did who came during the 1970s and 1980s. If the United States were to fail to provide pathways to legalization, or if it were to adopt pathways that were punitive (i.e., that attached a price tag in the form of either a large fine for having been unauthorized or a sizeable fee for legalization that were so prohibitively high that they discouraged applications), then the size of this group would continue to grow and the educational disadvantages and inequalities plaguing the group's members compared to others would persist, along with a rising human-resource opportunity cost to the nation that would accompany their presence in the country.

In addition we find that long-term unauthorized status harms the children of unauthorized immigrants. Particularly notable is that the unauthorized status of mothers alone appears to reduce their children's school by about a year-and-a-quarter, all else equal. The children of Mexican immigrants averaged 13 years of education, so a reduction of 1.25 years is critical, signifying the difference between attending some college and not finishing high school. Education dramatically affects a person's life chances, influencing a wide range of outcomes from health, income, wealth, family formation, to criminal behavior. To put it in concrete terms, Americans without a high school diploma earn about half a million dollars less over their lifetimes and die about seven years earlier than those with some college (Julian and Kuminski 2011; Meara, Richards, and Cutler 2008).

The findings presented here thus indicate the crucial role that opportunities for legalization play in the success and failure of the children of immigrants. The disadvantages associated with remaining unauthorized are evident in the above results. That legal status alone exerts its own positive force on second generation education implies that providing pathways to legalization helps to overcome the risk of an expanding underclass of unauthorized entrants. Given that most children of unauthorized immigrants are born in the United States, our analysis suggests that legislation providing the possibility of entry into full societal membership creates benefits not only for the immigrants themselves but also for their children and potentially their children's children. That those unauthorized entrants who have the opportunity to legalize and do so are able to overcome many of the disadvantages confronting them, as do their children, constitutes strong evidence in support of granting full societal membership. Because parents' socioeconomic status has sizeable effects on children's education (Fischer and Hout 2006), the positive influence of such membership in the immigrant generation is also highly likely to carry over to later generations, boosting their schooling as well.

METHODOLOGICAL APPENDIX

Section 1. Immigrant Intergenerational Mobility in Metropolitan Los Angeles (IIMMLA) Survey Sample

The IIMMLA data come from a 2004 survey funded by the Russell Sage Foundation that involved telephone interviews carried out with 4,780 adults in the five-county Los Angeles metropolitan area. Because many immigrant groups have come to the United States primarily since immigration policy changes in 1965, and thus have few children who have reached middle age, the overall interview was limited to persons aged 20 to 40. The survey targeted the children of immigrants from six large immigrant groups: Mexicans, Chinese, Filipinos, Koreans, Vietnamese, and Salvadorans/Guatemalans. It also included a residual group of the children of all other immigrants. In addition, the research sought comparison groups among blacks and non-Hispanic whites who were at least third-generation. Respondents from Mexican, black, and white groups were obtained exclusively by random-digit dialing (RDD) within the five-county Los Angeles area. Here we focus on the sample of 935 adult children of Mexican immigrants. The IIMMLA data currently are available to the public through the Inter-University Consortium for Political and Social Research (ICPSR).

Comparisons of average education (years of schooling completed) and age between the Mexican-origin group in the survey and the same national-origin group from Current Population Survey data (March supplement) for the five-county LA metropolitan area for the years 2003-2005 show quite similar means on education and age for all of the groups (these are available from the authors by request). Mexicans are the best example in the IIMMLA data of a sojourner immigrant group. Because of their centrality to the immigrant experience in Los Angeles, the survey oversampled them and targeted persons in the first, third and fourth-plus generations, as well as the 1.5 and second generations. We use only data from the interviews of the 1.5 and

second generations. The "1.5" generation consists of those who were born abroad to foreign-born parents but arrived in the United States before age 15. Members of the second generation are those born in the United but have at least one immigrant parent. U.S.-born respondents comprise about two-thirds of the Mexican origin sample; the remaining individuals are 1.5 generation. In this paper, we refer to these two groups combined as the "second" generation.

Section 2. Legal Status Information in the IIMMLA Survey

We also use the information provided by the respondents on the migration status of their parents to construct measures of each parent having taken or not taken each of six steps toward naturalization. Each such step constitutes a critical migration transition, the occurrence of which increases the migrant's stock of early political entry capital (see Hochschild and Mollenkopf's [2009] schema). When one of these steps had been taken in the case of a given parent, the person was given a score of "one" versus a score of "zero" for that step. Five of the steps consist of whether: (1) a potential migrant comes to the United States in the first place; (2) a migrant enters legally (as a student, tourist, legal border crosser, temporary worker, or legal permanent resident [LPR]); (3) an entrant who did initially come as a LPR subsequently becomes a legal permanent resident; (4) someone who had become a LPR naturalizes relatively early (within 10 years); and (5) someone who had become a LPR naturalizes *later* (after the first 10 years). In addition, a sixth step derives from some migrants having married native-born co-ethnics (i.e., members of their national origin group). These native-born family members contribute early entry resources to family members by dint of their nativity status throughout the entire incorporation process.

Section 3. Measurement of Parental Legal Status Trajectories

This is achieved by applying latent class analyses to the accrual of increments of early political-entry incorporation conceptualized in terms of the six key steps of the entry process noted above. Conducting such analyses serves two purposes. First, they show whether Mexicans, as expected, display variegated combinations of parental migration/legalization/naturalization trajectories. Second, the emergence of such classes provides a basis for classifying parents with respect to combinations of mixed status to assess the relationships between such statuses and educational outcomes among their children. We use a maximum-likelihood latent class model to sort the IIMMLA respondents into classes based on similarities among their parents' steps in making transitions from entry to citizenship. Such latent class analyses involve using a variant of finite-mixture models, which have often been used to identify groups with distinctive patterns of behaviors (Clogg 1995; Muthén 2001b). In this case, the classes consist of groups of immigrant parents with similar combinations of steps toward naturalization. Although the actual size and pattern of such classes are not directly observed, the latent class analyses enable the inference of such clusters from similarities in the data (Muthén 2001a; Wagmiller et al. 2006). They provide a basis for estimating the proportion of cases in each class and the probabilities of membership in a class stemming from different patterns of transitions in migration status.

Section 4. Methodological Strategy

This is accomplished by conducting a four-step analysis. First, we estimate latent class models and then classify parents and their children into parental mixed-status classes based on the results. Second, we estimate the degree to which antecedent characteristics affect the sorting of parents into these mixed-status classes using multinomial regression models. Third, we

estimate observed selectivity by regressing children's educational attainment on dummy variables for, parental mixed-status class, controlling for parents' antecedent characteristics, with and without inverse probability treatment weights, the use of which is discussed below. Fourth, we employ an instrumental variable approach to estimate the effects of class membership on attainment net of unobserved influences. The overall modeling framework within which we carry out such estimations is presented in Figure 2.

Section 5. Controlling for *Observed* Selectivity into Parental Legal Status Trajectories

The fact that the order of the parental combinations shown in the table runs roughly from more complete membership at the top to less at the bottom, as does the unadjusted years-of-schooling advantage, suggests that the possibility that the education premium could derive from favorable selectivity into the higher incorporation classes according to parental antecedent factors. To assess this possibility, we add controls for antecedent factors in one model. Although the magnitude of the schooling advantage is reduced somewhat (with the exception of those in the Mother-Citizens category, whose advantage becomes greater), the education premium persists. Note also that for one of the categories (the father unauthorized, mother legal group), the premium disappears altogether. But for the most part, a differential of at least one-and-a-half years of schooling remains.

In another adjustment, we follow procedures developed by Hong and Raudenbush (2008), and as applied by Sampson, Sharkey and Raudenbush (2008), to adjust for additional selectivity. Basically, we weight the respondents according to the inverse of the predicted probability of parental mixed-status class membership based on the multinomial regression of the membership categories on the antecedent variables. The intuitive explanation of this approach is that it gives those whose parents have low probabilities of selection into the class the most

influence in estimates of the class's effect on schooling. Called the method of Inverse

Probability of Treatment Weighting (IPTW), the technique is similar to propensity score

matching, which provides a way to estimate putative direct effects in the presence of observed

confounding from antecedent and mediating factors, at least within an approach that relies on the

conceptualization of counterfactual comparisons as bases for inferring causal possibilities

(Morgan and Winship 2007). Statistically, the adjustment is equivalent to allowing for all

possible combinations of antecedent variables to interact in their effects on class membership

(Wooldridge 2002). Applying the procedure here results in a slightly higher education premium

for most of the classes, one that hovers around two years of schooling, except again for the

Citizen-Mother group, for which the premium is even larger (2.4 years) and for the Mother-

unauthorized group, for which the difference goes to zero. This implies that all possible

interactions among antecedent variables work on a net basis to slightly depress the education

differentials. When the effects of these are controlled, the differences among the mixed-status

categories increase somewhat.

　　　　We also examine results after adding covariates for respondents' characteristics that

might be thought to be associates with both the education differentials and parents' mixed-status

combination, as well as a covariate for parents' number of years in the country. These could in

all likelihood also be associated with the parental antecedent factors just examined. As a result,

controlling for them also adds another level of control for additional antecedent factors.

Another adjustment repeats the same IPTW procedure previously applied, thus yielding what is

undoubtedly the best estimate of the influence of <u>observed</u> selectivity on the schooling

differentials, given the large number and varying kinds of controls utilized.

Section 6. Controlling for *Unobserved* Selectivity into Parental Legal Status Trajectories

Legalization through the 1986 Immigration and Reform Act (IRCA) legalization program offers a way to adjust for unobserved selectivity. All illegal persons residing in the country since at least January 1, 1982, were eligible for this particular kind of legalization, which was the regular legalization program of IRCA (Gonzalez-Baker 1990; Bean, Vernez and Keely 1989). Moreover, in urban areas like Los Angeles, where almost all of the IIMMLA parents lived, virtually all persons who were eligible on the basis of this criterion actually legalized, and almost all of those who legalized did so under the auspices of this particular provision of IRCA (Pan 2009). Furthermore, we examine education differences between those coming before 1982 and after 1982 and find no difference between the earlier and later arriving groups in their children's education other than that owing to secular increases in overall schooling, a change for which we adjust in the various models estimated here by including duration of time in the country.

In the IIMMLA data, nearly three-fourths of the respondents' parents were living in the United States before 1982. This means that, of the nearly half who entered the country illegally (Bean et al. 2011), most would have legalized under IRCA. We thus construct an instrument for mother's attainment of legal permanent residency status following similar procedures to those adopted by Angrist and Evans (1998) when they estimated the effects of fertility beyond the first child on labor supply. They used as instruments couples who already had two children of the same sex or couples with one child who had twins. Here we estimate a first-stage logistic regression for having attained legal permanent residence status, using as predictors having come to the country to stay before 1982, together with the parental antecedent variables used in previous models. We do not exclude from this first-stage regression the mothers who said they entered the country to stay as LPRs because many persons who come to the country in this way had been here previously and in fact were adjusting their status rather than arriving for the first

time (Jasso et al. 2008). We then estimate a second-stage regression on respondent's education, again including the covariates and weighting (using the IPTW procedure). In these regressions, we collapse into one category the four mixed-status classes containing mothers who had attained legal permanent residency. We also collapse the two classes containing mothers who remained unauthorized.

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