IMMIGRANT AGE AT ARRIVAL AND THE INTERGENERATIONAL TRANSMISSION
OF ETHNIC IDENTIFICATION AMONG MEXICAN AMERICANS

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ABSTRACT

Many U.S.-born descendants of Mexican immigrants do not identify as Mexican or Hispanic in
response to the Hispanic origin question asked in the Census and other government surveys.
Analyzing microdata from the 2000 U.S. Census and the 2001-2019 American Community
Surveys, we show that the age at arrival of Mexican immigrants exerts an important influence on
ethnic identification not only for these immigrants but also for their U.S.-born children. Among
Mexican immigrants who arrived as children, the rate of "ethnic attrition"—i.e., not self-
identifying as Mexican or Hispanic—is higher for those who migrated at a younger age. Moreover,
the children of these immigrants exhibit a similar pattern: greater ethnic attrition among children
whose parents moved to the United States at a younger age. We unpack the relative importance of
several key mechanisms—parental English proficiency, parental education, family structure,
intermarriage, and geographic location—through which the age at arrival of immigrant parents
influences the ethnic identification of their children. Intermarriage turns out to be the primary
mechanism: Mexican immigrants who arrived at a very young age are more likely to marry non-
Hispanics, and the rate of ethnic attrition is dramatically higher among children with mixed ethnic
backgrounds.

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Many U.S.-born descendants of Mexican immigrants do *not* identify as Mexican or Hispanic in response to the Hispanic origin question asked in the Census and other government surveys. Using microdata from the U.S. 2000 Census and the 2001-2019 American Community Surveys, we study how the age at arrival of Mexican immigrants to the United States influences their ethnic identification and that of their U.S.-born children.

Our work draws upon and bridges two distinct literatures on the social and economic integration of U.S. immigrants and their descendants. The first literature shows that, among immigrants who arrived as children, those who migrated at a younger age possess as adults substantial advantages in English proficiency, educational attainment, earnings, and other indicators of socioeconomic assimilation, such as having a U.S.-born spouse and living outside of an ethnic enclave (Bleakley and Chin 2004, 2010; Myers, Gao, and Emeka 2009; Akbulut-Yuksel, Bleakley, and Chin 2011; Beck, Corak, and Tienda 2012; Hull 2023). This literature also finds that immigrants who arrived at a younger age transmit some of these advantages to their U.S.-born children (Bleakley and Chin 2008).

The second literature that we draw upon analyzes the extent and selectivity of ethnic identification among the descendants of U.S. immigrants (Waters 1990; Perlmann and Waters 2007). For Mexican Americans, this literature demonstrates that "ethnic attrition"—i.e., *not* self-identifying as Mexican or Hispanic—is both substantial and highly selective, with individuals of Mexican ancestry who identify as Mexican or Hispanic possessing much lower levels of socioeconomic attainment than their counterparts who do not identify as Mexican or Hispanic (Alba and Islam 2009; Duncan and Trejo 2011, 2017; Lopez, Gonzalez-Barrera, and Lopez 2017). As a result, standard data sources understate the socioeconomic attainment of U.S.-born descendants of Mexican immigrants (Duncan *et al*. 2020).

In the current paper, we show for the first time that the age at arrival of Mexican immigrants exerts an important influence on ethnic identification not only for these immigrants themselves but also for their U.S.-born children. Among Mexican immigrants who arrived as children, the rate of ethnic attrition is higher for those who migrated at a younger age. Moreover, the children of these immigrants exhibit a similar pattern: greater ethnic attrition among children whose parents moved to the United States at a younger age. We unpack the relative importance of several key mechanisms—parental English proficiency, parental education, family structure, intermarriage, and geographic location—through which the age at arrival of immigrant parents influences the ethnic identification of their children. The literature discussed previously demonstrates that arriving at an early age hastens and furthers the integration of immigrants. We show here that this pattern also holds for ethnic identification and that the resulting differences in ethnic attrition among first-generation immigrants are transmitted to their second-generation children.

I. Data

We use publicly available microdata from the 2000 U.S. Census and the 2001-2019 American Community Surveys (ACS).[1] We restrict the sample to U.S.-born children, ages 0-17, who live with a parent who was born in Mexico and migrated to the United States before the age of 15.[2] In addition, the current age of the Mexican immigrant parent must be in the range 25-55.[3] We end up with a sample of 281,076 U.S.-born children matched to a Mexican-born parent

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[1] We obtained these data from the IPUMS USA web site (Ruggles *et al*. 2024). The 2000 Census data are a 5 percent sample of the population, and the 2005-2019 ACS data are 1 percent samples. The sampling rates for the 2001-2004 ACS data vary between 0.38 and 0.43 percent.

[2] For foreign-born individuals, their approximate age at arrival in the United States is calculated from available information regarding current age, year of immigration, and survey year.

[3] We also require that the immigrant parent *not* be born abroad of American parents, because being born in Mexico may be an unreliable indicator of Mexican ethnicity for such individuals. If a child is living with both of their parents and both parents meet the conditions for being a "Mexican immigrant parent who arrived in the United States before age 15," we assign

who migrated to the United States before the age of 15.

The Hispanic origin question in the Census and ACS elicits relevant information regarding the ethnic identification of the parents and children in our sample (Humes, Jones, and Ramirez 2011). Respondents are asked whether they are "of Hispanic, Latino, or Spanish origin," and those who answer affirmatively are then given the opportunity to designate a specific national origin group (such as Mexican, Puerto Rican, or Cuban).[4] Here, we focus on a broad definition of ethnic identification: do individuals identify as Hispanic or not? We have also explored the narrower question of whether individuals identify specifically as Mexican, and this alternative analysis produces similar empirical patterns.[5]

II. Basic Patterns

Figure 1 illustrates how ethnic identification varies with parental age at arrival for the Mexican immigrant parents and U.S.-born children in our sample. Following Bleakley and Chin (2004, 2008, 2010), we treat age at arrival as exogenous for the parents in our sample who immigrated to the United States as children or teenagers, because the timing of their arrival was likely determined by family considerations largely independent of their individual circumstances.

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the parent who arrived at a younger age to be the child's "immigrant parent." If both parents arrived at the same age, we assign the mother to be the child's immigrant parent.

[4] Typically, one adult will fill out the Census or ACS questionnaire for the entire household, and we do not know which household member completes the questionnaire. As a result, answers to the Hispanic origin question may not represent how respondents would have answered for themselves. Another thing to note is that the Hispanic origin question solicits and reports only a single response for national origin. For example, respondents cannot identify as having both Mexican and Puerto Rican ancestry. In contrast, the race question permits multiple responses; beginning with the 2000 Census, respondents are instructed to "mark one or more races" (Humes and Hogan 2009).

[5] The broader category "Hispanic" will capture some individuals of Mexican descent who do not identify specifically as Mexican or Mexican American, including those of mixed backgrounds who identify with a different Hispanic national origin group (such are Dominican or Salvadoran), as well as those who use a pan-ethnic label (such as Hispanic or Latino). For this reason, our focus on Hispanic rather than Mexican identification will produce conservative estimates of ethnic attrition.

Figure 1: Ethnic Identification of Mexican Immigrant Parents and U.S.-born Children, By Parent's Age at Arrival in the U.S.
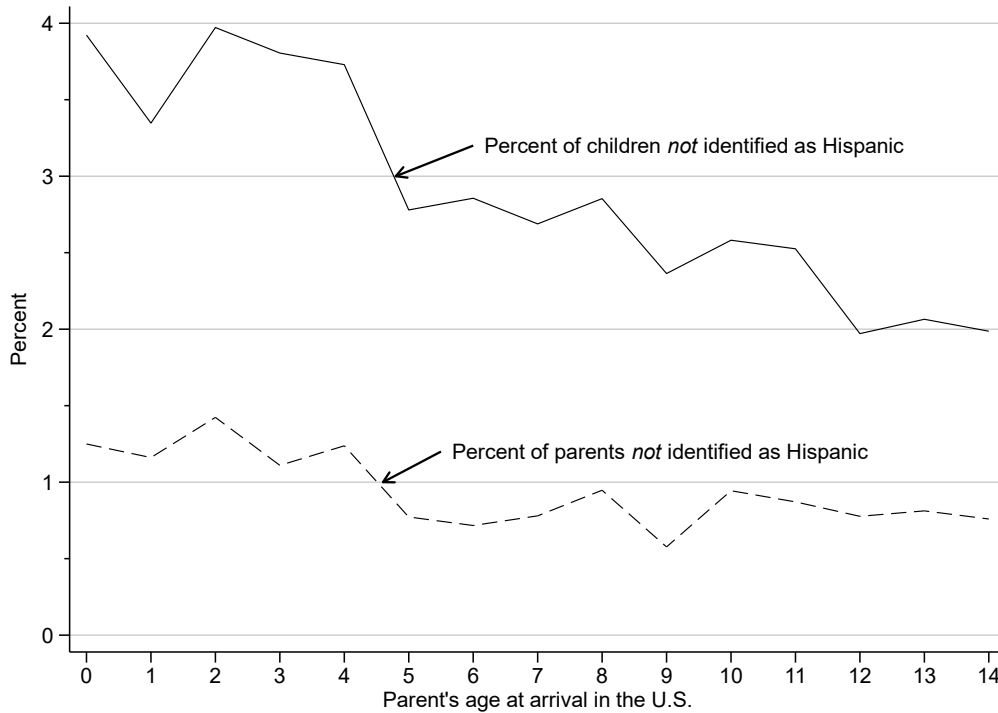
Source: 2000 U.S. Census and 2001-2019 American Community Survey microdata from IPUMS USA.
Note: See the text and the note to Table 1 for information about the sample. Sampling weights were used in the calculations.

Figure 1 shows that Mexican immigrant parents who immigrated to the United States as very young children are less likely to identify as Hispanic than their counterparts who arrived as somewhat older children or teenagers. The pattern is qualitatively similar and more pronounced for the U.S.-born children of these Mexican immigrants.

To highlight differences by age at arrival of the immigrant parent, Table 1 reports means (and standard errors of means) of key variables for the overall sample and also separately by whether the parent migrated to the United States at a younger (0-8) versus older (9-14) age. Overall, less than one percent of the Mexican immigrant parents fail to identify as Hispanic, but the ethnic attrition rate is 33 percent higher for the parents who arrived younger (1.05 percent) rather than older (0.79 percent), and the difference is statistically significant. As suggested by Figure 1, the impact of the parent's age at arrival on Hispanic identification becomes stronger

among their second-generation children. The ethnic attrition rate is over 50 percent higher for

U.S.-born children whose parents immigrated before the age of 9 (3.33 percent) compared to

those whose parents immigrated at ages 9-14 (2.19 percent).

Table 1: Means of Key Variables, by Age at Arrival of Mexican Immigrant Parent

Variable	Parent's age at arrival in U.S.		
	0-8	9-14	0-14
Parent arrived in U.S. before age 9	1.000	0.000	0.492
	(0.000)	(0.000)	(0.001)
Parent's age at arrival in U.S.	3.983	11.964	8.038
	(0.007)	(0.005)	(0.009)
Parent does *not* identify as Hispanic	0.0105	0.0079	0.0092
	(0.0003)	(0.0002)	(0.0002)
Child does *not* identify as Hispanic	0.0333	0.0219	0.0275
	(0.0005)	(0.0004)	(0.0003)
Parent speaks English very well	0.758	0.420	0.586
(or parent speaks *only* English)	(0.001)	(0.001)	(0.001)
Parent's years of schooling:			
< 12	0.270	0.480	0.377
	(0.001)	(0.001)	(0.001)
> 12	0.296	0.157	0.225
	(0.001)	(0.001)	(0.001)
Child lives with both parents	0.821	0.838	0.830
	(0.001)	(0.001)	(0.001)
Among children living with both parents,			
other parent is:			
U.S.-born	0.413	0.241	0.325
	(0.001)	(0.001)	(0.001)
Not Hispanic	0.108	0.054	0.080
	(0.001)	(0.001)	(0.001)
State of residence is CA, TX, AZ, or NM	0.761	0.696	0.728
	(0.001)	(0.001)	(0.001)
Sample size	137,967	143,109	281,076

Source: 2000 U.S. Census and 2001-2019 American Community Survey microdata from IPUMS USA.
Note: Standard errors of the means are shown in parentheses. The sample includes U.S.-born children, ages 0-17, who live with a parent who was born in Mexico and migrated to the United States before the age of 15. The sample is further restricted to include only children whose Mexican immigrant parent was *not* born abroad of American parents and is currently 25-55 years of age. Sampling weights were used in the calculations.

Consistent with previous research (e.g., Bleakley and Chin 2004, 2010), Table 1 also

indicates that immigrants who arrived as young children achieve greater socioeconomic

integration as adults along several important dimensions. Compared to their counterparts who

arrived in the United States at an older age, immigrant parents who arrived before age 9 have better English language skills and more schooling, higher likelihoods of marrying someone who is U.S.-born or is non-Hispanic, and a greater tendency to live in the southwest states of California, Arizona, New Mexico, and Texas where Mexican Americans traditionally concentrate. Evidently, family background and the home environment vary dramatically among U.S.-born children of Mexican immigrants depending upon the parent's age at arrival, and such differences could help to shape variation in these children's ethnic identification.

III. Regression Results

We use descriptive regressions to explore potential pathways or mechanisms through which the arrival age of Mexican immigrant parents may influence the ethnic identification of their U.S.-born children. The dependent variable is a dummy indicating that a child does *not* identify as Hispanic, and the key independent variable is a dummy indicating that a child's Mexican immigrant parent arrived in the United States before the age of 9. Table 2 reports the estimated coefficient on this independent variable from regressions that successively control for additional variables.

In column (1), no additional variables are included in the regression, and the point estimate reproduces the result—evident in Table 1—that the ethnic attrition rate is 1.14 percent higher for children whose parent arrived in the United States before age 9 compared to those whose parent arrived at ages 9-14. This differential is virtually identical in column (2) when the regression includes dummy variables that control in detail for the survey year and for the age and sex of both the parent and the child. Column (3) shows the impact of further controlling for variables that we view as representing possible mediators—i.e., potential mechanisms through

which a parent's age at arrival could influence their child's Hispanic identification.[6] After

conditioning on these additional variables, the estimated effect of parental age at arrival almost

disappears, falling to one-tenth of its initial size. Collectively, the covariates added in column

(3) account for almost all of the association between an immigrant parent's age at arrival and

their child's ethnic identification.

Table 2: Effect of Parent's Age at Arrival on Child *Not* Identifying as Hispanic

Regressor	(1)	(2)	(3)
Parent arrived in U.S. before age 9	.0114	.0115	.0014
	(.0008)	(.0009)	(.0008)
Baseline controls:			
Survey year	No	Yes	Yes
Age and sex of child	No	Yes	Yes
Age and sex of parent	No	Yes	Yes
Additional variables:			
Parent's English ability	No	No	Yes
Parent's educational attainment	No	No	Yes
Parent(s) that child lives with	No	No	Yes
Other parent's nativity and Hispanicity	No	No	Yes
State of residence	No	No	Yes

Source: 2000 U.S. Census and 2001-2019 American Community Survey microdata from IPUMS USA.
Note: The reported figures are estimated coefficients from least squares regressions in which the dependent variable is a dummy indicating that a child does *not* identify as Hispanic. The key independent variable is a dummy indicating that a child's Mexican immigrant parent arrived in the United States before the age of 9. Heteroskedasticity-robust standard errors are shown in parentheses. See the text and the note to Table 1 for information about the sample. The sample size is 281,076 for all regressions. Sampling weights were used in the calculations.

To assess which potential mediators are driving the relationship between parent's age at

arrival and children's ethnic attrition, we use the decomposition developed by Gelbach (2016).

The first row of Table 3 displays again the estimated coefficients on the dummy variable

identifying parents who arrived young from the "base" regression specification (column (2) of

Table 2) and from the "full" specification (column (3) of Table 2), and the last entry in this row

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[6] These additional variables include detailed sets of dummies describing the parent's English proficiency and educational attainment, which parent(s) the child lives with (i.e., both parents, mother only, or father only), the nativity and Hispanicity of the child's *other* parent (when the child lives with both parents), and state of residence.

reports the difference between these estimated coefficients. This difference represents the

portion of the effect of a parent's age at arrival on their child's ethnic attrition that is

"explained," collectively, by the additional variables included in the full regression specification.

Table 3: Gelbach Decomposition of Potential Mechanisms Underlying the Effect of Parent's Age at Arrival on Child *Not* Identifying as Hispanic

| Regressor | Specification | | Explained |
	Base	Full	Part
Parent arrived in U.S. before age 9	.0115	.0014	.0101
	(.0009)	(.0008)	(.0004)
Additional variables:			[100.0%]
Parent's English ability	No	Yes	.0019
			(.0003)
			[19.0%]
Parent's educational attainment	No	Yes	.0005
			(.0002)
			[5.2%]
Parent(s) that child lives with	No	Yes	.00003
			(.00001)
			[0.3%]
Other parent's nativity and Hispanicity	No	Yes	.0087
			(.0004)
			[85.9%]
State of residence	No	Yes	-.0011
			(.0001)
			[-10.3%]

Source: 2000 U.S. Census and 2001-2019 American Community Survey microdata from IPUMS USA.
Note: This table reports the decomposition described in Gelbach (2016), where the "base" and "full" specifications are from columns (2) and (3) of Table 2, respectively. Both specifications include controls for the survey year and for the age and sex of both the parent and the child. Standard errors are shown in parentheses. Displayed in brackets is the percentage of the total explained part that is accounted for by each group of additional variables. Sampling weights were used in the calculations.

The Gelbach decomposition allocates this difference between the estimated

coefficients—i.e., the total "explained part" shown in the first row of Table 3—into components

representing the portions attributable to individual variables or sets of variables.[7] In our context,

this decomposition produces results that are both striking and intuitive. Intermarriage is the

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[7] This decomposition is based on the well-known equation—often used to analyze omitted variable bias—showing how a regression coefficient changes when additional covariates are included in the model.

primary mechanism though which the age at arrival of Mexican immigrant parents affects the

ethnic identification of their children, accounting for 86 percent of the explained part. Mexican

immigrants who arrived at a younger age are more likely to marry non-Hispanics (see Table 1),

and the rate of ethnic attrition is dramatically higher among children with mixed ethnic

backgrounds. This finding echoes a recurring theme in the literature on ethnic attrition regarding

the critical role of intermarriage (Duncan and Trejo 2011, 2017; Alba 2020).

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