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Immigrants in the U.S.**

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ABSTRACT

Divorce among European and Mexican Immigrants in the U.S.

This paper analyzes the status of being currently divorced among European and Mexican immigrants in the U.S., among themselves and in comparison to the native born of the same ancestries. The data are for males and females age 18 to 55, who married only once, in the 2010-2014 American Community Surveys. Among immigrants, better job opportunities, measured by educational attainment, English proficiency and a longer duration in the U.S. are associated with a higher probability of being divorced. Those who married prior to migration and who first married at an older age are less likely to be divorced. Those who live in states with a higher divorce rate are more likely to be divorced. Thus, currently being divorced among immigrants is more likely for those who are better positioned in the labor market, less closely connected to their ethnic origins, and among Mexican immigrants who live in an environment in which divorce is more prevalent.

JEL Classification: J12, J15, J16, J24

Keywords: marriage, divorce, minorities, immigrants, gender, human capital, demographics

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1. INTRODUCTION

Marital status is both influenced by, and itself is likely to influence, the socio-economic and demographic characteristics of individuals. This paper is concerned with the correlates of immigrants reporting that they are currently divorced. Do the characteristics that determine an immigrant's economic success influence marital stability? The topic warrants consideration for those interested in immigrant adjustment or in family stability. The outcomes associated with divorce, such as difficulties due to single parenthood and less desirable outcomes for children of divorce, may be exacerbated for immigrants. Previous research has also found that divorced individuals are more likely to have lower levels of physical and mental health (Hughes and Wait 2009, Johnson & Wu 2002, Waite, Luo & Lewin 2009). There is evidence that women bear a larger brunt of divorce as they typically retain custody of children (Hoffman and Duncan 1988) and that children in single-parent households may have lower educational outcomes and other measures of socioeconomic success (Beller & Graham 1993, Couch & Lillard 1997, Gustavsen, Nayga, & Wu 2016, Krein & Beller 1988, McLanahan & Sandefur 1994, Sun & Li 2002). The difficulties of single-motherhood may be greater for immigrant women, who are also adjusting to the U.S. by navigating the job market, learning English, and American customs, than for native-born women.

We examine the correlates to divorce using ordinary least squares regression analysis (OLS) with the 2010-2014 American Community Survey (ACS) data for native-born and immigrant samples with European and Mexican ancestry age 18 to 55 living in the U.S. We also estimate logistic regressions, but do not include the results here as the findings are similar and are available upon request. A detailed discussion of this econometric choice can be found in the methodology section. The use of cross sectional data, like the ACS, is problematic for analyzing issues surrounding divorce as some important pre-divorce characteristics are unknown and information on the divorced partner (not living in the household) is unavailable. While there are longitudinal data available that are useful for studying issues related to divorce, sample sizes for immigrant groups are too small to conduct meaningful statistical analyses. Therefore, the ACS data is used despite its limitations.

A fair share of immigrant related analyses use regression analysis and combine ethnic immigrant groups. Given that regression analysis estimates the “average” relationship between the dependent variable and independent variables, and that ethnic groups are likely to have vastly different characteristics, the results of a regression analysis tell us little about how the “typical” immigrant for a specific region of origin behaves with regards to divorce. Therefore, we examine two subsets of immigrants in the U.S., Europeans and Mexicans. These groups are ideal as there are large samples of both the immigrants and the native born of these ancestries. Additionally, by combining multiple countries to examine European immigrants we are able to evaluate some interesting characteristics related to immigrant divorce that vary by specific country of origin.

The ACS identifies the year of migration. However, the ACS only identifies the age at which the last, or current, marriage took place. To evaluate relationships between the timing of migration and marital status, the sample must be restricted to individuals who have been married only once. This restriction will exclude those who divorced (or widowed) and remarried¹. This restriction is important, as we are not able to identify those who were married within their ethnic group prior to divorce. By restricting the sample this way, we can identify those who married prior to migration who are more likely to be in endogamous marriages. Several studies highlight the importance of endogamy with respect to divorce, finding higher divorce rates for those in interethnic marriages (Jones 1994, Kalmijn, de Graaf, & Janssen 2005, Smith, Maas, & Tubergen, 2012). Additionally, we restrict the analysis to those age 55 and younger to minimize the effect of being widowed. We do not know among the aged (over age 55) who would still be married or among the divorced if not for the death of their spouse. Divorce decisions among the aged and retired may be quite different than among those of working age.

Using the ACS data we cannot identify if adult native-born individuals are the children of immigrants, that is, second-generation Americans. Although we know the reported ancestry of

¹ Moreover, for those married more than once we do not know whether the previous marriages ended in divorce or the death of the spouse.

the native born, we do not know how many generations have passed since their ancestors immigrated.

There is a large literature discussing various aspects of immigrant assimilation, but very little on immigrant divorce. Additionally, there is a fair amount of research on divorce, but very little on divorce among immigrants. Furtado, Marcén, and Sevilla (2013) examine divorce among European immigrants in the U.S. using the 2000 Census, focusing on the role of the country of origin divorce rate. They limit their sample to those who migrated at age 5 or younger to control for exposure to U.S. norms. We expand on their research by including immigrants who migrated at any age and examine the role of length of residence in the U.S. on the probability of divorce. Further, we include a measure of the linguistic distance of their mother tongue from English for those of European origin, and examine a sample of Mexican immigrants, as well as provide a comparison between European and Mexican immigrants and their native-born counterparts.

More broadly, this research contributes to the literature on immigrant divorce in two main ways:

1. The unique state of divorce among immigrants living in the U.S. is analyzed by constructing several proxies of U.S.-specific and country of origin human capital.
2. The differences between common correlates with divorce are examined between immigrant and native-born samples in the U.S. among both European and Mexican immigrants and the native-born of these ancestries.

The first issue is addressed by hypothesizing the role different forms of human capital, environmental, and demographic variables play in relation to divorce. The analysis then evaluates variables related to these different variables and their effects on divorce among immigrants using the 2010-2014 ACS data. The second issue is addressed in conjunction with the first by comparing native-born samples to immigrant samples for those of European or Mexican origin using the 2010-2014 ACS data.

Several interesting patterns emerged from the regression analysis. Immigrants married before migration are less likely to be divorced, indicating that, on average, the potential for migration to disrupt marital stability is dominated by high levels of marriage-specific human capital associated with endogamous marriage. For all groups, higher English language ability is associated with a higher probability of divorce. The effect of linguistic closeness of the origin language to English is measured for the European immigrant sample and is significantly positively related to divorce. Origin language closeness to English and greater English ability indicate that higher levels of U.S.-specific human capital are associated with higher probabilities of divorce. Years of education is positively related to divorce for both male and female native-born with Mexican ancestry, and female Mexican immigrants, suggesting that greater economic stability is associated with a higher probability of being divorced. However, among the native-born of European origin, education level is negatively related to divorce. Couples with higher levels of education are likely to have higher earnings, and should be more able to incur the economic cost of divorce. Alternatively, couples with higher incomes may view divorce as more costly due to the larger loss of household income associated with a separation.

The remainder of the paper proceeds as follows. Section 2 discusses the hypotheses within our theoretical framework and summarizes the methodology used for the analysis. Section 3 provides information regarding the data and restrictions. Descriptive statistics and regression results for the European and Mexican samples are presented in Sections 4 and 5, respectively. The conclusion is found in Section 6.

2. THEORY AND HYPOTHESES

2.1 Theory

Our framework for analyzing divorce among immigrants in the U.S. expands upon the Becker et al. utility maximization model (Becker, Landes, & Michael 1977, Becker 1981). The underlying theory provided in Becker's model is that individuals will remain married as long as the individual utility within the marriage is greater than the individual utility outside of that marriage (the alternative statuses of single or remarrying). We provide a framework for evaluating the several factors that influence and change an immigrant's marriage related utility,

both within a marriage and outside of marriage. Section 2.2 categorizes utility altering factors as either marriage-specific human capital, social-specific human capital, or labor market specific human capital. We specify conditions for which these forms of human capital may be altered by the environment in which the immigrant resides. Section 2.3 introduces our main hypotheses by identifying measurable proxies and discussing the predicted relationship between each measure and the probability of being divorced for immigrants in the U.S.

2.2 Classification of Human Capital

In the context of this research, we classify human capital broadly into three groups: marriage-specific, social-specific, and labor market-specific. Marriage-specific human capital refers to skills and abilities that are more valuable within marriage than outside of marriage. Higher levels of marriage-specific human capital are associated with a lower probability of divorce (Becker, Landes, & Michael, 1977). For immigrants, human capital may be classified as either U.S.-specific or ethnic (or origin)-specific. As time spent in the U.S. increases, the level of ethnic-specific human capital may deteriorate as U.S.-specific human capital increases if the two are anti-complementary in home production (Chiswick, C. 2009). However, stocks of ethnic-specific human capital are not predicted to deteriorate if ethnic and U.S.-specific human capital are complements in the home production process.

Stocks of marriage, social, and labor market related human capital depend on the type of marriage, geographic location, and the relationship between US-specific human capital and ethnic-specific human capital. Table 1 summarizes these conceptual relationships by showing the relationship between marriage, social, and labor market-specific human capital for both ethnic-specific and U.S.-specific human capital. Not all of these relationships can be analyzed in this study; however, they are important theoretical considerations we feel warrant discussion. The theoretical channels between the relationships in Table 1 and divorce are discussed here.

Marriage related human capital can be classified as either ethnic-specific or U.S. specific. Presumably, immigrants in endogamous marriages will have large levels of ethnic-specific

marriage-specific human capital. See Chiswick and Houseworth (2011) for a good discussion of the relationship between ethnic and U.S. specific human capital as it relates to ethnic intermarriage and endogamy. Large stocks of ethnic specific human capital for those in endogamous marriages indicate a lower probability of divorce.

Additionally, Table 1 shows the relationship between residence in the U.S. and the ethnic makeup of the population. Social networks for immigrants will have different effects on marriage utilities and the stock of ethnic-specific human capital, depending on the ethnic makeup of these networks, including both the size of the ethnic group and the shared beliefs and values of the ethnic group. On the one hand, individuals living in “ethnic enclaves” may have common identities and values. These shared values may provide benefits to staying married within one’s ethnic group. As well as shared values, community attitudes towards divorce may also affect an individual’s utility within marriage. For instance, if the ethnic or religious specific community views divorce as particularly negative, individuals within these communities are less likely to divorce. However, large ethnic enclaves may also provide a potentially large remarriage market, the size of which increases with the size of the enclave. Moreover, some ethnic and religious communities may hold men and women to different standards.

Finally, Table 1 highlights the relationship between the different forms of human capital for immigrants in the U.S. dependent on the correlation between ethnic and U.S.-specific human capital. For example, if U.S. and ethnic-human capital are complements in production, an immigrant with relatively high levels of ethnic specific human capital will also have relatively high levels of U.S.-specific human capital.² We do not impose a restriction that U.S.-specific human capital and ethnic-specific human capital are either complements or anti-complements in production, and therefore we cannot fully parse out the channels through which U.S.-specific human capital affects the probability of divorce.

Given that the probability of divorce depends on the utility within the marriage, compared to the utility outside of the marriage, and that these utilities are dependent on the factors discussed

² For a more detailed discussion of these relationships see Chiswick, C. (2009).

above, we examine the relationship between divorce and the measureable proxies of the different forms of human capital and other determinants. The remainder of this section discusses each hypothesis within this framework.

2.3 Hypotheses

The level of marriage-specific human capital that is related to ethnicity is likely to be larger for those in endogamous marriages. We are not able to examine the ethnic mix of the divorced couple, as we do not have information on the specific partners of those who are divorced. However, we do know if the individual was married prior to migration, and pre-migration marriages are most likely to be endogamous. Several studies highlight the importance of endogamy with respect to divorce, finding higher divorce rates for those in interethnic marriages (Jones 1994, Kalmijn, de Graaf, & Janssen 2005, Smith, Maas, & Tubergen, 2012). It is hypothesized that individuals who marry prior to migration are less likely to be divorced than those who marry after migration.

One measureable proxy of ethnic-specific human capital and environmental factors is the country of origin divorce rate. Immigrants may have different social and cultural norms regarding divorce and labor market attachment from their destination countries, which influences their attitudes on divorce (Adserà, 2014). Previous research indicates that immigrants from countries with low divorce rates also have low rates of divorce in the U.S., where the effect is stronger for females than males (Furtado, Maracen, & Sevilla-Sanz, 2013 and Smith, Maas, & Tubergen, 2012). Therefore, it is predicted that immigrants from a country with a relatively high divorce rate are more likely to be divorced than immigrants from a country with a relatively low divorce rate.³

³ Cultural characteristics and institutional arrangements in the country in which a person is raised can impact their marital status and labor market activities as adults. For three recent studies focused on women, see Fernandez and Wong (2017), Marcén and Morales (2018) and Neuman (2018). These cultural and institutional arrangements can be thought of as the environment in which the person lives, hence, environmental factors.

Ethnic group size is included to represent the “remarriage market” for immigrants living in the U.S. It is possible that this variable may instead, or additionally, capture the strength of the ethnic community. If group size captures the re-marriage market, theory predicts an erosion of marital ties (marriage-specific human capital), as individuals may be less likely to work through hard times in their marriage if remarriage is easier. If group size measures the strength of the ethnic community, marriage-specific human capital may increase as group size increases, thereby decreasing the probability of divorce.

The interaction of one’s ethnic-specific social network (measured through group size) and the attitude towards divorce in the country of origin may help to shed light on the role of ethnic social capital on utility within marriage. For instance, for those from countries with a relatively high divorce rate, a large group of individuals from the same ethnicity may act more as a potential remarriage market rather than re-enforcing ethnic-specific capital that supports marriage-specific human capital.

An availability ratio is also included to measure the potential remarriage market. The availability ratio (or sex ratio) measures the ratio of the number of people of the opposite sex to the same sex individuals by age, geographic region, and ethnicity. It is hypothesized the greater the availability ratio, the more likely there is to be a divorce.

For the native-born, large stocks of U.S. labor market related human capital appear to be associated with a relatively high utility within marriage. For instance, there is evidence that divorce is positively related to financial hardship (Becker 1981, Landes & Michael 1977, Michael 1979 and 1988, Weiss & Willis 1997). However, it is difficult to parse out the direction of causation between income and divorce. Additionally, for immigrants, large stocks of U.S. labor market related human capital may also indicate large stocks of U.S. social human capital. Large quantities of social U.S. specific human capital may decrease the utility from a marriage for an immigrant. US specific human capital is measured using English ability, linguistic closeness (proximity of their origin language to English), and years spent in the U.S. Those who are more proficient in English, whose origin language is closer to English, and who have been in the U.S. longer have more U.S.-specific human capital and are expected to have

relatively weaker ties to their ethnic group and to have a broader U.S.-general social network. With a larger U.S. social network they are hypothesized to be more likely to divorce.

We also include standard variables related to divorce such as age, the presence of children, divorce rate by U.S. state of residence, regional variables, and years of education. There is evidence that individuals who marry at later ages tend to have more stable marriages (Lehrer 1996, Rotz 2016). Hence we hypothesize that a later age at first marriage is associated with a lower probability of divorce.

The presence of children in the home has been found to have a negative correlation to divorce (Becker, Landes, & Michael 1977, Lehrer 1996), however, Waite & Lillard (1991) find that this relationship is not constant across age of children. They find that for couples with children under the age of six there is a negative correlation, but teenage children are usually associated with a higher parental divorce rate. This may arise from the postponement or delay of actual divorce when children are young and the divorce takes place when they are older. As we do not have information on the divorced spouse and the fact that children tend to remain with the mother in the event of divorce, we control for the presence of own children in the household for women only. It is hypothesized that the presence of children is associated with a lower divorce propensity, especially if there are children under age 6 at home.

Early work by Stetson and Write (1975) and later work by Nakonezny, Shull, & Rodgers (1995) find a strong and significant positive relationship between permissive state divorce laws and divorce rates. Sweezy and Tiefenthaler (1996) examine the relationship between state-level characteristics; such as welfare programs, property distribution laws, waiting periods, and the percentage of church-goers and fundamentalists. They find that only the two measures of conservatism are significantly related to divorce. We hypothesize that respondents who live in states with a higher gross divorce rate will be more likely to be divorced, other variables being the same.

Historically, divorce was more likely for those with higher levels of education as they could afford not only the direct divorce costs, but also to manage financially as a single adult

household. More recent literature has estimated a negative relationship between divorce and education (Bramlett & Mosher 2002, Härkönen & Dronkers 2006, Lyngstad 2004). The difference in divorce propensities between the highly educated and less educated should decrease over time as divorce has become less costly and as women increase their participation in the paid labor market. We hypothesize that a higher level of education is associated with an ambiguous divorce probability.

2.4 Methodology

Hypotheses developed from this model are tested using data from the 2010-2014 American Community Surveys (ACS).

We use a linear probability model to test hypotheses related to the special case of divorce among immigrants in the U.S. The binary dependent variable, D , is equal to one if the individual is currently divorced and zero if the person is still married. Equation (1) below shows the probability of divorce among immigrants as being dependent on a vector of individual characteristics related to divorce that are independent of immigrant status (X_i), such as age and education level, factors unique to immigrants (I_i), re-marriage market characteristics (RM_i), and an error term (ε). For the native-born samples, immigrant related characteristics, (I_i), do not vary and are therefore omitted from the analyses. The respective coefficients can be interpreted as the change in the probability that $D = 1$ associated with a unit change in the independent variable.

$$(1) \quad D = \beta_{X_i} X_i + \beta_{I_i} I_i + \beta_{RM_i} RM_i + \varepsilon$$

Logistic regression analysis is an alternative to this model that can address the non-conforming probabilities problem associated with linear probability regression analysis. To address this concern, we also perform a logistic regression analysis, the results being available upon request. Given that non-conforming probabilities are not an issue and that results do not change materially, we provide only results from the ordinary least squares regression analysis, mainly for ease of interpretation. We also estimate robust standard errors to address heteroskedasticity in the model.

3. DATA AND SAMPLE RESTRICTIONS

The statistical analysis uses the 2010-2014 American Community Surveys (ACS) and restricts the sample to non-institutionalized individuals between the age of 18 and 55. It would be difficult to interpret results for a sample that included many ethnic groups. Therefore, only two very large ethnic groups are examined. Those of European and Mexican origin are defined by country of birth for the foreign born and by reported ancestry for the native born. The foreign-born sample is described by country of birth and sample size in Appendix A. The sample size refers to the total number of immigrants in the sample from the respective country and is provided to illustrate the distribution of the sample. The native-born comparison samples are those who self-report as belonging to any of the European or Mexican ancestry groups, respectively. For the native born, the ancestries codes in the ACS used to define the Europeans are codes 001 through 195, 200, 291, and 431. The codes used to define the native born of Mexican ancestry are 210 through 213, 215, 218 and 219. No native-born person is in both the European and Mexican category. The ACS does not provide information on parent's country of birth, therefore we are unable to identify 2nd generation immigrants in our native-born sample. Europeans and Mexicans are analyzed separately.

Appendix B provides a list of each of the variables included in the analysis, their definition, and source.

The data on marital status in the ACS include the categories: Married, spouse present; married, spouse absent; widowed; separated; never married; and currently divorced. The ACS only identifies the age at which the last, or current, marriage took place. It is not possible to determine whether an individual's first marriage took place prior to or post migration, unless the analysis is restricted to those married only once. However, this restriction will bias the sample of divorced individuals, as those who divorced and remarried are not included in the analysis. We construct a dichotomous variable that serves as the dependent variable in the analysis where "divorced" is equal to one for those who report their current status as divorced

and “married” is equal to zero for those who are married, spouse present or spouse absent.⁴ The never married, the widowed, and the separated are deleted from the sample. The upper age boundary limits the number widowed.

The analyses are performed for men and women of European and Mexican ancestries separately to highlight differences in immigrant divorce by gender and ethnicity. The amount of time put into a relationship (Heaton & Blake 1999) and the initiation of the divorce may differ by gender (Brinig and Allen 2000, Kalmijn & Poortman 2006). Further, previously studied determinants of divorce are found to have very different effects for men and women (Furtado, Marcén, & Sevilla 2013). Therefore, we expect factors related to divorce to affect men and women differently. Further, as discussed in detail below, examining the effect of children on the probability of divorce necessitates separate regressions for men and women, since men are less likely to be living with their children if they are divorced and, if so, the number of their children is not known.

Country of origin divorce rates are shown in Appendix A. The crude divorce rate is a flow and equals the number of divorces per 1,000 residents in the respondent’s country of origin for the year specified (United Nations Department of Economic and Social Affairs, Demographic Yearbook 2014). The Demographic Yearbook includes crude divorce rates for the years 2010 – 2014. The most current year reported was used and varied by country. The year used for each country of birth is specified in Appendix A. Crude divorce rates are found for over 99 percent of the European sample. Individuals for whom a country of origin divorce rate could not be estimated are assigned a missing value for this variable. The origin divorce rate does not vary in the Mexican sample and is omitted from the analysis.

Divorce rates for U.S. state of current residence are taken from: “Marriage, Divorce, and Widowhood Rates Per 1,000 Men and Women Aged 15 and Over for the Nation, Regions, and States: 2009,” U.S. Census Bureau, American Community Survey, 2009. This rate is also a

⁴ The “married, spouse absent” constitute only 4 percent of the married sample among the immigrants and 2 percent among the native-born for each gender. The location of the absent spouse and that person’s characteristics are not known.

flow and is equal to the number of divorces in 2009 per 1,000 people. The crude divorce rate is less than ideal, as it is affected by the age structure of the population, however, Amato (2010), finds that the correlation between a crude divorce rate and a refined divorce rate, the number of divorces per 1,000 married women, is over .90. Therefore, the crude divorce rate is a suitable proxy for the refined divorce rate and will be used, as we do not have refined divorce rates for all countries and states included in the analysis.

Hart Gonzalez and Lindermann (1993) report proficiency assessments for Americans learning 43 languages as measured by the U.S. Department of State, School of Language Studies. These assessments are translated into a linguistic closeness measure by Chiswick and Miller (2005). Lower linguistic closeness scores correspond to a greater distance from English and are associated with lower levels of English fluency for immigrants. A linguistic closeness score is found for over 90 percent of our European immigrant sample. A missing value is assigned for the remaining 10 percent. This variable was not included in the analysis for the Mexican sample given the lack of origin language variation among Mexicans. Linguistic closeness ranges from 0 to 1, where 0 is the furthest from English. Those who speak only English in the household and migrants from an English speaking country (e.g., the British Isles and Ireland) are assigned a value of 1.

A PUMA (Public Use Microdata Areas) is an area nested within states, contains at least 100,000 people, and is built on census tracts and counties. Group size is equal to the number of individuals of the same ancestry by PUMA. The availability ratio (or sex ratio) is equal to the number of the opposite sex of the same ancestry by PUMA between the ages of 18 and 55, divided by the number of the same sex of the same ancestry and PUMA aged 18 to 55. The availability ratio and group size reflect the size of the potential first marriage and remarriage market for in-group marriage.

Dichotomous variables were created for individuals who migrated between the ages of 0-13, 14-18, 19-25, 26-35, 36-45 and 46 or older⁵. Those who migrated at a younger ages are

⁵ These age groupings were chosen to best capture the effects of migrating as children (0-13), teenagers (14-18), college age adults (18-25), those who migrate as adults (26-35 and 36-45),

hypothesized to have less country of origin social and human capital and more U.S.- specific social and human capital.

The ACS only provides information on the presence of children who are currently living in the household. Men are far less likely to retain custody of their children after divorce. Including children variables in the male regression would present measurement and econometric problems. We therefore only include dichotomous variables identifying one of the following four states for women: 1. Children under 6 are present in the home, 2. Children between the ages of 6 and 17 are present in the home, 3. Children in both age categories are present in the home, 4. No children under the age of 18 present in the home.

3. DESCRIPTIVE STATISTICS

Descriptive statistics are shown separately by ethnicity, sex, and marital status in Tables 2 and 3. Table 2a shows summary statistics for European immigrants and European ancestry native-born males. Table 2b shows the analogous statistics for females. Both native-born European ancestry males and females are more likely to be currently divorced than their foreign-born counterparts.

Tables 2a and 2b also highlight important differences in the percentage divorced among immigrants. The percentage divorced is larger for those who migrated at younger ages and smaller for those who migrated at later ages. Immigrants who are currently divorced are more likely to self-report a high level of English ability, less likely to report poor or no English ability, less likely to have children living in the home in any of the three age groups, and reside in a location with a larger number of their ethnic group than their married counterparts. Divorced immigrants are also less likely to have married prior to migration. The presence of children and their ages appear to be important correlates of divorce for the native-born European samples.

and those who migrate at later ages (46 or older). The teenagers at immigration are most likely to have the greatest difficulty in adjusting to the U.S. (Chiswick and DebBurman 2004).

Table 3a and 3b show summary statistics for the Mexican samples of men and women, respectively. Similar to the European samples, the Mexican native-born are much more likely to be divorced than their foreign-born counterparts. Interestingly, the foreign-born Mexican samples are less likely to be divorced than their European counterparts. The average country of origin divorce rate of the European sample is around 2.0, and half that (0.9) for the Mexican sample (Shown in Appendix B).

Among Mexicans, the self-reported English proficiency, “English Only or Very Well”, is on average about 26 percentage points higher for the native-born sample than for immigrants. There are also significantly fewer native-born Mexicans who report speaking no English or poor English. Native-born Mexicans have more than one additional year of education and are less likely to have children than their foreign-born counterparts.

Important correlates of divorce for Mexican immigrants appear to be English ability, married prior to migration, and age. There are fewer divorced women with children in the home, for women with children under six, or in both age groups. However, among those with children between 6 and 17, there are relatively equal percentages of married and divorced immigrants. A similar pattern is found among native-born Mexican-origin women.

5. REGRESSION RESULTS

5.1 European Samples

Results for the European samples are shown in Table 4. Regressions are run separately for both immigrant men and women and native-born men and women. The presence and age of children were also included in the analysis for women only, as discussed in section 3. Robust standard errors are reported for all groups, and are clustered by state and PUMA. Results are generated using the appropriate weights provided by the ACS that correct for the difference between the percentage sampled and the population by sex, age, and race.

Regression results with country of origin and state-PUMA fixed effects are not shown.

Because of issues of collinearity when country of origin fixed effects are included, the variable for the country of origin divorce rate no longer enters the equation. When state-PUMA fixed

effects are included the state divorce rate and groups size no longer enter the equation. The other results are essentially unchanged. We prefer the equations that include the origin and state based variables over the fixed effects equations because the former reflect economic and institutional factors.

5.1.1 European Immigrants.

One measureable proxy of ethnic-specific human capital is the country of origin divorce rate. The divorce rate in the country of origin was significantly positively related to divorce for immigrant men and women. As the country of origin divorce rate increases by 1 the probability of divorce for women increases by 1.6 percentage points, but by less for men. These results support the finding in Furtado, Marcén, and Sevilla (2013) that women are more likely than men to be influenced by the culture surrounding divorce in the country of origin. However, Furtado, Marcén, and Sevilla (2013) find that the probability of divorce increases by 6 percentage points when the country of origin divorce rate increases by 1 percentage point. We also control for the divorce rate in the state of current residence in the U.S., which may account for this difference. If there is a correlation between the U.S. state divorce rate and the country of origin divorce rate, then results excluding the state divorce rate may be biased.

Variables related to U.S.-specific human capital include the origin languages' linguistic closeness to English, age at migration, and self-reported English ability. Linguistic closeness to English is significantly positively related to divorce, indicating that individuals who speak languages closer to English are more likely to divorce and, conversely, the further away the language is from English, the less likely they are to divorce. Linguistic closeness may provide a useful proxy for the speed at which an individual may gain U.S. social-specific capital. Those for whom the English language can be acquired sooner may be more likely to divorce as their social circles and employment opportunities widen.

Self-reported English language ability can also be examined to determine the role of US-specific human capital on the probability to divorce for immigrants. Both men and women who self-report that they speak English only or very well are more likely to be divorced compared to those who speak it "well", where the effect is larger for women (3.3 percentage

points for men and 4.2 for women). Speaking English poorly compared to the benchmark, “well”, lowers the divorce propensity for men but only at the 5 percent level of statistical significance.

Six dichotomous variables were created to indicate age at migration: between the ages of 0 and 13, 14 and 18, 19 and 25, 26 and 35, 36 and 45, and those who migrated at age 46 or later. The benchmark group are those who migrated between the ages of 19 and 25. Men and women who migrated between age 36 and 45 and women who migrated between age 26 and 35, are significantly less likely to be currently divorced than those who migrated between the ages of 19 and 25. Controlling for current age, those who migrated between ages 19 and 25 have higher levels of U.S. specific human capital, measured by length of time in the U.S., which is associated with higher levels of divorce as higher levels of U.S.-specific human capital result in larger social networks. Additionally, perhaps greater earnings make it easier to become and remain divorced, especially among women.

European immigrants who arrive with a larger stock of US-specific human capital, measured through a smaller linguistic closeness to English, are more likely to be divorced. Those who report high levels of English language ability, a measure of US-specific human capital, are also more likely to divorce. Together with the findings for age at migration, each of these relationships indicates that higher levels of U.S.-specific human capital influence marital decisions in favor of divorce.

Group size is significantly negatively related to divorce for women only. As group size increases by 10,000 the probability of divorce decreases by 6.4 percentage points. Given that group size may be an indicator of either close ties to one’s ancestral group or a measure of the within group remarriage market, we include an interaction term, “Country of Origin High Divorce X Groupsize” to isolate this effect. A relatively high divorce rate is one that is above the average for the European sample. The interaction term between country of origin divorce rate and group size is significantly positively related to divorce for women only. While a high country of origin divorce rate is associated with a higher probability of being divorced, this effect is larger, the larger the size of one’s ancestry/ethnic group in the metro area (PUMA) in

which the respondent lives. This suggests the importance of the remarriage market within ethnic groups.

The availability ratio (or sex ratio) is another measure of the remarriage market, however, it is significantly negatively related to divorce for men and women. As the availability ratio increases by 1, the probability of divorce decreases by 2.2 and 3.1 percentage points, respectively. These results do not support the hypothesis that a stronger “country of origin remarriage market” increases the probability of being divorced. Rather, a larger marriage market may result in more stable marriages, hence lower divorce rates. In other words, individuals who live in areas with a larger number of potential partners may end up with a better first marriage match.

Endogamous marriage can be a proxy indicating a high level of country of origin marriage related human capital. Without information on the spouses of those who are divorced it is impossible to examine the direct relationship between endogamous marriage and divorce. However, we do know that marriage prior to migration indicates a higher probability of an endogamous relationship. Men and women who were married prior to migration are 3.3 and 2.6 percentage points, respectively, less likely to be divorced than those who married on or after year of migration.

Standard variables related to divorce, not directly related to the immigrant experience, include age at marriage, current age, years of education, number and age of children, and the divorce rate in the state of residence. Divorce rate in the state of residence is not significantly related to divorce for the European immigrant samples of men and women. Women with children under six are 11 percentage points less likely to be divorced than women without children, women with children between 6 and 17 are 9 percentage points less likely to be divorced than women without children, and women with children in both age groups are 15 percentage points less likely to be divorced than women with no children. Children apparently reduce the probability of being divorced. The probability of being divorced increases for both immigrant men and women with their age, perhaps in part because remarriage probabilities decline with age. Age at marriage has no significant effect in divorce among immigrant men and women.

Education is significantly positively related to divorce among immigrant women, but there is no significant effect among immigrant men. The effect for women may be due to the effect of more schooling enabling women to support themselves (and their children) outside of marriage.

5.1.2 Comparison Between European Immigrants and Native Born.

A comparison between the native-born European origin sample and the immigrant European sample can also be found in Table 4. Presence of children (for women only) is significantly negatively related to divorce for both immigrant and native-born samples of Europeans. Age is positively related to divorce for both samples of men and women, however, the size of the effect differs by sex and place of birth. It is greatest for native born women and smallest for immigrant men. Age at marriage is significantly negatively related to divorce for the native-born samples of men and women. Both native and foreign-born women with children under the age of 6, between 6 and 17, and those with children in both age categories are all less likely to be divorced than their female counterparts with no children under the age of 18 living at home. Interestingly, the effects for each category of children's ages are similar for both immigrant and native-born women.

English ability is also an important determinant of divorce for the native-born European samples. The effects are also larger than those for the immigrant samples. Native-born men and women are 9 percentage points more likely to be divorced if they speak English only or very well compared to speaking well. They are also less likely to be divorced if they speak no English, or speak English poorly, suggesting a smaller marriage or remarriage market that may be linked into an immigrant/ethnic enclave.

The state divorce rate was not significantly related to divorce for the foreign-born sample, however, it is a significant positive predictor for the native-born male and female samples.

Group size is also negatively related to divorce for the native-born samples, indicating that those who live in areas with larger numbers of their ethnic group may have close ties to their ethnic origin and be less likely to divorce or if they do divorce, they are more likely to remarry. The availability ratio is also negatively related to divorce for the native-born samples suggesting better marital matches when there is a larger marriage market.

Education is negatively related to divorce for the native-born samples for both men and women. In other words, more educated individuals are less likely to be divorced. One of the efficiency benefits of education may be in making better marital matches. However, for immigrant women the probability of divorce increases as education increases, perhaps because of their having better labor market opportunities.

5.2 Mexican Samples

The analysis was also conducted for foreign and native-born people of Mexican origin living in the U.S. (Table 5). Regressions are run separately for both Mexican immigrant men and women and native-born men and women of Mexican origin. For women, only, presence and age of children were also included in the analysis.

Tests were computed for including state-PUMA fixed effects in the analysis. Including these fixed effects in the analyses results in both the state divorce rate and group size (based on the respondent's state and PUMA) being deleted from the equation. There are no effects on the coefficients of the other explanatory variables. The regressions reported in Table 5 do not include these fixed effects, but include the state divorce rate and group size.

5.2.1 Mexican Immigrants.

Both immigrant men and women are less likely to be divorced if they married prior to migration. This effect is larger for women than men. This result mirrors that found for the European samples and indicates that higher levels of country-of-origin marriage capital are associated with marital stability.

Migrating at earlier ages is significantly positively related to divorce for immigrant men and women as compared to the benchmark, those who migrated between the ages of 19 and 25. Recall that Europeans who migrated between 26 and 35 were less likely to be divorced than those who migrated between 19 and 25. The effect of age at migration on the probability of being divorced is in the same direction for Mexican and European samples, however, the age for which this relationship is significant is older for Europeans. This result is likely driven by the different age distributions of these two samples. For instance, Tables 1 and 2 show a larger percentage of Mexicans who migrated before age 19 than the European samples. Mexican men who migrated between age 26 and 35 are more likely to be divorced than the benchmark.

Those who self-report speaking English only or very well are more likely to be divorced than those who speak English well, and, conversely, those who report no or poor English are less likely to be divorced. The effect is larger for women.

Among Mexican immigrants, group size is not significantly related to divorce; however, the availability ratio is negatively related to divorce for both men and women. The latter may imply faster remarriage rates the higher the availability ratio.

5.2.1 Comparison Between Mexican Immigrants and Native-Born Samples.

Both native-born and foreign-born samples are less likely to be divorced if their marriage took place at a later age. Also, older individuals are more likely to be divorced after controlling for age at marriage. The state divorce rate is positively related to divorce for both men and women, regardless of place of birth. Speaking English only or very well, compared to those speaking it well, is positively related to divorce for all groups of Mexicans, although the effect is larger for those who were born in the U.S. Speaking no English or speaking English very poorly is negatively related to divorce for all groups, where the effect is largest for the native-born. Group size is not significantly related to divorce. The availability ratio is negatively related to divorce. Years of education is positively related to divorce for the native-born sample only. Both immigrant and native-born females are less likely to be divorced if there are

children in the home. However, the effect for the native-born sample is more than twice that of the immigrant sample for each age range.

6. CONCLUSION

This research is an important step in analyzing divorce among immigrants in the U.S. We provide a framework for evaluating divorce among immigrants. The framework allows for an investigation into how these decisions are likely to be different for immigrants as compared to the native-born.

Immigrants have different parameters regarding the decision to be divorced in the U.S. than the native-born. The timing of marriage with relation to migration and immigrant-specific human capital and other characteristics are all factors influencing divorce that are not present for the native-born. Immigrants married before migration are less likely to be divorced, indicating that, on average, the potential for migration to disrupt marital stability is trumped by high levels of marriage-specific human capital associated with endogamous marriage.

Common findings among all samples of the native born and foreign born relate to the English ability, the remarriage market, age at marriage, age, and children. Current age is positively related to divorce and age at marriage is negatively related to divorce. English ability is perhaps the most obvious measure of U.S.-specific human capital and is significantly positively related to divorce among both European and Mexican immigrants and the native born. The effect of linguistic closeness to English is measured for the European immigrant sample and is significantly positively related to divorce. Linguistic closeness and English ability suggest that higher levels of U.S.-specific human capital increase the divorce probability, perhaps through social networks although greater financial resources may enable entering into and remaining being divorced.

Interesting differences among the samples concern the state divorce rate and education. The state divorce rate is positively related to the probability of divorce for Mexican native-born and immigrants, as well as native-born Europeans, but not for immigrant Europeans. The effect of education is mixed depending on ancestry and place of birth. Among Europeans, years of

education is positively related to divorce for immigrant females and negatively related for the native-born samples of both men and women. Native-born men and women of Mexican ancestry are more likely to be divorced as years of education increase. But there is no effect of education on divorce among either male or female Mexican immigrants. Couples with higher levels of education are likely to have higher earnings, and should be more able to incur the cost of divorce. However, couples with higher incomes may view divorce as more costly due to the larger loss of household income associated with a separation. Moreover, the higher incomes may reduce marital discord over financial matters.

A major finding of this study is that immigrants with larger stocks of U.S.-specific human capital are more likely to be divorced. Future research should delve deeper into this connection by examining the relationships between ethnic and U.S.-specific human capital (both social and labor market).

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