# **Does Culture Affect Divorce? Evidence From European Immigrants in the United States**

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Abstract This article explores the role of culture in determining divorce by examining country-of-origin differences in divorce rates of immigrants in the United States. Because childhood-arriving immigrants are all exposed to a common set of U.S. laws and institutions, we interpret relationships between their divorce tendencies and home-country divorce rates as evidence of the effect of culture. Our results are robust to controlling for several home-country variables, including average church attendance and gross domestic product (GDP). Moreover, specifications with country-of-origin fixed effects suggest that immigrants from countries with low divorce rates are especially less likely to be divorced if they reside among a large number of coethnics. Supplemental analyses indicate that divorce culture has a stronger impact on the divorce decisions of females than of males, pointing to a potentially gendered nature of divorce taboos.

Keywords Divorce · Culture · Immigrants

## Introduction

Much of the recent literature on divorce has focused on the role of divorce laws in explaining changes in divorce rates, generally finding a positive relationship between

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the permissiveness of the laws and the likelihood of divorce, at least in the short run (González and Viitanen 2009; Wolfers 2006). Although differences in laws may have explained cross-country variation in divorce rates in the past, the current rather homogenous divorce laws regime across Europe (González and Viitanen 2009; González-Val and Marcén 2012a) is unlikely to account for divorce rates, which still vary substantially across European countries (see column 1 of upcoming Table 1). An alternative potential explanation lies in cross-country differences in the generosity of welfare policies. Given that the welfare state often substitutes for many of the services historically provided within families, countries with a larger share of gross domestic product (GDP) devoted to transfers and public services tend to have higher divorce rates (Tjøtta and Vaage 2008). Other institutional and economic determinants of divorce, which are likely to vary by country, include unemployment rates (Jensen and Smith 1990); tax laws (Dickert-Conlin 1999); laws regarding property distribution within marriage (Gray 1998); and laws concerning alimony payments, child support (Heim 2003; Nixon 1997), and child custody (González-Val and Marcén 2012b; Halla forthcoming). In this article, we present evidence suggesting that culture also plays an important role.

Following Fernández (2007), we conceptualize culture as a set of beliefs and preferences that vary across time, space, or social groups. Most important for our analysis is that culture is portable and remarkably persistent. As Fernández and Fogli (2009) explained, international migrants cannot bring with them the economies and laws of their home countries but do bring their norms, belief systems, and traditions. Although it is true that these preferences may have arisen in response to historical laws and institutions, they are certainly slower to change and are likely to persist even when the laws that gave rise to them change. Culture, necessarily social in nature, may be transmitted from parents to children through socialization (Bisin and Verdier 2000; Bisin et al. 2004), within neighborhoods (Borjas 2005), or through the broader society via television and the Internet (Chong and La Ferrara 2009). Parents surely instill in their children beliefs about the morality of divorce, but children may also form their own attitudes based on perceptions of role models within their communities. Adults may also be affected by divorce culture if certain communities tend to ostracize divorcees.

The interrelationship between institutions and norms makes it difficult to rigorously disentangle the two using cross-country data (see, e.g., Sevilla-Sanz 2010). Countries in which inhabitants have more liberal attitudes toward divorce enact liberal divorce policies. At the same time, more liberal divorce policies can generate attitudes that are more accepting of divorce. To separate the effect of culture from institutions on an individual's probability of divorce, we follow the epidemiological approach, most fully developed in Fernández and Fogli's (2009) study of female work and fertility decisions, and examine divorce patterns of immigrants from Europe who arrived in the United States at age 5 or younger. Immigrants in our sample have lived under the laws, institutions, and markets of the United States. However, because their preferences are likely to reflect the attitudes of their parents and ethnic

<sup>&</sup>lt;sup>1</sup> By 2003, almost all European countries implicitly or explicitly permitted unilateral divorce at least after a required separation period. The only two countries that presently do not have unilateral regimes are Ireland and Italy. In these two countries, if a spouse opposes a divorce, the divorce is not necessarily granted.



communities, differences in their divorce rates by country of origin may be interpreted as evidence of the importance of culture. For example, if divorce laws were the only explanation for why Italy has a lower divorce rate than Russia, then when we remove differences in laws by examining Russians and Italians living in the same city in the United States, all Russian/Italian divorce differences should be eliminated. Instead, if home-country divorce rates can explain divorce patterns of childhood migrants who have spent most of their lives exposed to U.S. culture and norms, this may be interpreted as evidence that cultural variation is at least a partial explanation for the differences in divorce rates across European countries.

In our empirical analysis, we use data from the 2000 U.S. census to estimate the probability that a European immigrant who arrived in the United States as a young child is divorced, based on the person's home-country divorce rate, defined as the number of divorces in a year per 100 married inhabitants. Our results suggest that culture plays an important role in explaining divorce even after controlling for an individual's socioeconomic characteristics. We find that when the divorce rate increases by 1, the probability that an immigrant in the United States is divorced increases by about 6 percentage points. Thus, given that Russians have the highest divorce rate of 1.26 and that Italians have the lowest divorce rate of 0.13, our model predicts that immigrants from Russia are almost 7 percentage points more likely to be divorced than immigrants from Italy.

Our results contribute to a growing literature on the effect of culture on socioeconomic outcomes (for reviews, see Fernández 2011; Fernández and Fogli 2005; Guiso et al. 2006). Using methodologies similar to ours, studies have examined the effect of culture on savings rates (Carroll et al. 1994), fertility and female labor force participation (Antecol 2000; Fernández 2007; Fernández and Fogli 2006, 2009), living arrangements (Giuliano 2007), unemployment rates (Brügger et al. 2009), and preferences for a child's sex (Almond et al. 2009). We add to this body of knowledge by examining the role of culture on divorce rates.

Using techniques employed by the epidemiological approach literature (specifically, Fernández and Fogli 2009), we place particular emphasis throughout this article on suggesting that our results are not driven by unobserved heterogeneity across ethnic groups. For example, given that divorce rates are higher among couples who marry young (see Lehrer 2008 for evidence from the United States) and have fewer children (see Svarer and Verner 2008 for evidence for Denmark), beliefs about appropriate age at marriage and ideal number of children may be driving our results. To examine this issue, we add origin-country average female age at first marriage and total fertility rates, as well as a host of other variables at the country-of-origin level to our main specification. In all models, the estimated coefficient on home-country divorce rates changes very little.

As an additional check that divorce norms are driving our results, we consider the relationship between home-country divorce rates and other outcome variables. If some unobserved characteristic, such as female earnings ability, were the main factor explaining the cross-ancestry differences in divorce patterns, we might expect it to also affect wages. Similarly, potentially omitted variables related to family preferences but independent of home-country divorce norms should also affect marriage rates. It turns out, however, that there is no statistically significant relationship between home-country divorce rates and these variables.



We also separate the analysis by gender to test the hypothesis that women are more sensitive to divorce culture than men. If women predominantly form their identities based on their roles as wife and mother while men form theirs based on their roles as worker and breadwinner (Akerlof and Kranton 2000), then if it is in fact divorce culture driving the results, we would expect home-country divorce rates to have a stronger impact on women than on men. This is precisely what we find. Separating the analysis by gender also allows us to include additional control variables—in particular the number of children in the house-hold and wages—that could be considered highly endogenous in specifications with both males and females. In all models, home-country divorce rates remain an important determinant of divorce probabilities lending further creditability to our research design.

In the last section, we follow Fernández and Fogli (2009) in presenting evidence suggesting that culture is not only transmitted from parent to child, but also within communities. We find that an increase in the concentration of individuals from the same country of origin leads to a larger decrease in the probability of being divorced for immigrants from countries with lower divorce rates. The fact that we find evidence of culture in specifications including country-of-origin fixed effects provides some additional evidence that our analysis is identifying the role of culture as opposed to unobserved individual characteristics that happen to be correlated within ethnic groups.

The remainder of this article is organized as follows. In the next section, we present the empirical strategy, and then we describe the data. Following that, we discuss baseline results and robustness checks, gender differences in the impact of culture on divorce, and then evidence of peer effects in the transmission of divorce culture. We conclude by highlighting the implications of our findings for the effectiveness of divorce policies.

## **Empirical Strategy**

It is difficult to distinguish the effect of culture from the effect of markets and institutions in explaining variation in cross-country divorce rates in Europe. Our empirical approach makes use of the fact that all European immigrants who arrived in the United States at a young age are, and have been, exposed to U.S. markets and institutions. Thus, evidence that home-country divorce rates can explain divorce propensities of young arriving immigrants might be interpreted as suggestive of the role of culture. The following equation forms the empirical framework of this analysis:

$$D_{iik} = \beta_1 DR_i + \mathbf{X}_{iik} \beta_2 + \delta_k + \varepsilon_{iik}, \qquad (1)$$

where  $D_{ijk}$  is an indicator variable for whether individual i of cultural origin j who lives in metropolitan area k reports being divorced.<sup>2</sup> Our measure of culture,  $DR_{i}$ , is

<sup>&</sup>lt;sup>2</sup> We use a linear probability model for simplicity, but results are similar when using probit or logit models.



the divorce rate in country j. Standard errors are clustered at the country-of-origin level to account for any within-ethnicity correlation in the error terms. If culture matters, then individuals originating from countries with more liberal cultures regarding divorce should have a higher probability of divorce than individuals from more traditional backgrounds. Thus, we expect  $\beta_1$  to be positive given that higher home-country divorce rates should be associated with more liberal attitudes regarding divorce.

Metropolitan statistical area (MSA) fixed effects, denoted  $\delta_k$ , are included to control for regional variation in U.S. divorce rates that might arise from cross-city differences in U.S. divorce attitudes or from cross-state differences in divorce laws (Friedberg 1998; Gruber 2004). The vector  $\mathbf{X}_{ijk}$  contains controls for gender, education, and age—individual characteristics that may affect divorce rates for reasons unrelated to culture. We allow for a very flexible functional form of age by including a full set of age dummy variables. In principle, it would also be desirable to control for spouse characteristics, but the census does not ask for information on ex-spouses.

Our dependent variable measures whether a person is divorced at the time of the survey. Ideally, we would ask whether culture affects the probability that a person *ever* divorces, conditional on having ever been married. Unfortunately, no recent data set contains information on ever having been divorced that also meets all our variable and sample size requirements.<sup>4</sup> However, this lack of information is problematic for our purposes only if remarriage rates are negatively associated with divorce tendencies. Figure 1 uses data from the World Values Survey (WVS) to show that remarriage rates are higher in countries with larger proportions of the population reporting to have ever been divorced.<sup>5</sup> (Details on variable construction can be found in Table S3 in the Online Resource 1.) Thus, if in the Unites States, divorcees from high-divorce countries are more likely to remarry, all our estimated effects of culture on current divorce status may be interpreted as lower bounds of the effect of divorce culture on the probability of ever having been divorced.<sup>6</sup>

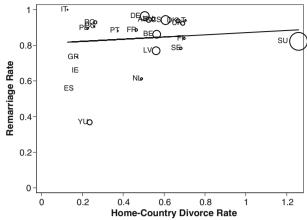
<sup>&</sup>lt;sup>6</sup> As an additional check, we also used 1980 census data, the last census to ask for information on marital history, to compare estimates of the effect of home-country divorce rates on the probability of being currently divorced to the probability of ever having been divorced. As expected, home-country divorce rates have a larger impact on the probability of having ever been divorced. Results are available upon request.



<sup>&</sup>lt;sup>3</sup> By restricting the sample to MSA residents, we not only lose about one-fifth of the sample, but any conclusions that we draw are technically applicable only to city dwellers who may be especially sensitive to origin-country norms and taboos. To examine this issue empirically, we ran our baseline regressions without restricting the sample to MSA residents and replacing the MSA fixed effects with state fixed effects. Results did not change substantially.

<sup>&</sup>lt;sup>4</sup> The longitudinal data sets that are typically used to study divorce, such as the Panel Study of Income Dynamics (PSID) and the National Longitudinal Survey of Youth (NLSY), do not have large enough samples of immigrants, much less childhood migrants, to conduct the analysis in this article.

<sup>&</sup>lt;sup>5</sup> Countries included in Fig. 1 are Russia (SU), Finland (FI), Lithuania (LT), United Kingdom (UK), Sweden (SE), Denmark (DK), Czechoslovakia (CS), Norway (NO), Belgium (BE), Latvia (LV), Hungary (HU), Austria (AT), Germany (DE), Netherlands (NL), France (FR), Portugal (PT), Switzerland (CH), Bulgaria (BG), Romania (RO), Yugoslavia (YU), and Poland (PL). The United Kingdom includes England, Scotland, Wales, and "United Kingdom, country not specified." Czechoslovakia includes the Czech Republic.



**Fig. 1** Remarriage and divorce rates. Divorce rates are defined as the number of divorces in the year 2000 per 100 married individuals in a country. Remarriage rates, the number of married people (conditional on having ever divorced) divided by the number of people who have ever divorced, were calculated by the authors using data from the 1999–2004 World Values Survey (WSV) (WSV Association 2000) on a sample of individuals aged 25–64. The two-letter codes for countries were obtained from the International Organization for Standardization (ISO). No data were available for Albania, Norway, and Switzerland. Circle sizes represent country populations estimated using WVS weighted observations

## Data

In our main analysis, we use data from the 5 % Integrated Public-Use Microdata Sample (IPUMS) of the 2000 U.S. census (Ruggles et al. 2010). Our sample consists of immigrants from Europe who arrived in the United States when they were age 5 or younger. These immigrants all grew up under the influence of U.S. laws, institutions, and markets, but their attitudes are likely to reflect the attitudes of their ethnic communities in addition to the attitudes of their families and the broader U.S. society. We include individuals who are between the ages of 25 and 64 because everyone in this sample is likely to have completed schooling and is younger than retirement age. Given that marriage is a prerequisite of divorce, we restrict the sample to those who are either married or divorced in order to avoid attenuation bias. Last, we include only residents of identifiable metropolitan statistical areas (MSAs). Our final sample consists of 20,751 immigrants from 26 European countries.

Much of the previous literature using the epidemiological approach to identify the effect of culture uses second-generation immigrants rather than first-generation immigrants. The rationale for this approach is that because second-generation immigrants have been exposed to U.S. markets and institutions their entire lives, they are unlikely to suffer from language barriers and do not suffer from the "shock" of immigration (Fernández 2007; Fernández and Fogli 2006, 2009; Giuliano 2007).

<sup>&</sup>lt;sup>8</sup> We also ran our analysis on a full sample of single, married, and divorced individuals. The estimated coefficient on home-country divorce rate was positive and statistically significant, but smaller in magnitude than the coefficient estimated using the ever-married sample.



When we restrict the sample to those individuals whose reported ancestry matches their country of birth, estimated home-country divorce rate coefficients are slightly larger. This result is expected because country-of-origin divorce culture should matter less for people who do not identify with their country of birth.

Nor do the early childhood arrivers in our sample suffer from these disadvantages. Home-country laws and institutions are not likely to have had a large effect on early childhood migrants; language barriers are not likely to be a problem for young arrivers; and because they were so young at the time of migration, moving to the United States is unlikely to have had a lasting disruptive effect on their lives. There are, however, two important reasons to favor using our childhood migrant sample instead of a second-generation immigrant sample. First, because divorce patterns have changed so dramatically in the past 30 years in the United States (Stevenson and Wolfers 2007), we think it is important to use recent data, and 1970 was the last year the census asked for information on parents' countries of birth. 9 Second, our childhood migrant sample is likely to be more homogeneous in terms of assimilation to the United States. Second-generation immigrants may have been born shortly after both their parents migrated to the United States (in which case they would be very similar to our sample of childhood migrants), or they may have one parent who migrated to the United States as an infant and another parent whose family has been in the United States for generations. The tendency to be at one extreme rather than the other may be correlated with home-country divorce rates yet affect divorce decisions for reasons unrelated to divorce culture.

For our main analysis, we use the 2000 divorce rate in the immigrant's country of origin as our cultural proxy. Divorce rates are computed by dividing the number of divorces in a year by the number of people married in that year and then multiplying by 100. An alternative approach often used in the literature is to measure homecountry divorce rates in the year of migration for the average person in the sample (or the person's parents if using second-generation immigrants). As Fernández and Fogli (2009) recognized, choosing which year to use is not obvious theoretically. On the one hand, divorce rates at the time of migration may best reflect home-country culture as experienced by immigrants. On the other hand, if immigrants remain in close contact with family and friends in their home countries years after migrating, values and taboos may be best captured by concurrent home-country divorce patterns. Rather than trying to resolve this issue on theoretical grounds, we follow Fernández's approach and run the analysis measuring home-country divorce rates in various years. As shown in Table S1 in Online Resource 1, results remain robust regardless of the year in which home-country divorce rates are measured, which is not surprising given that culture tends to evolve slowly. We choose to focus on divorce rates for the year 2000 because there are fewer missing data in 2000 than in previous years (see Table S3 in Online Resource 1 for details on how we deal with missing data in constructing the home-country divorce rate variables.)

Table 1 presents summary statistics of the relevant variables by country of origin. Countries are ordered from highest to lowest divorce rate. The first column shows large home-country divorce rate variation: from 1.26 divorces per 100 married individuals in Russia to 0.13 in Italy. The proportion of childhood arrivers who are divorced is shown in the second column. Immigrants from countries with high divorce rates appear more likely to be divorced than immigrants from countries with

<sup>&</sup>lt;sup>9</sup> It is possible to identify second-generation immigrants in recent Current Population Surveys (CPS), but small sample sizes make it difficult to precisely estimate some of our coefficients of interest.



Table 1 Summary statistics by country of origin

Country of Origin	Home-Country Divorce Rate	Proportion Currently Divorced	Average Age	Proportion Male	Proportion High School Graduate	Proportion Some College	Proportion Bachelors Degree +	Proportion At Least One Child (Females)	Average Log Wage (Males)	Average Log Wage (Females)	Number of Observations
Russia	1.26	0.16	37.36	0.47	0.21	0.22	0.5	0.5	10.54	10.06	214
Finland	0.7	0.14	46.57	0.59	0.1	0.4	0.5	0.41	10.77	10.54	38
Lithuania	0.7	0.44	50.8	0.54	0.22	0.22	0.56	0.42	10.19	10.63	19
United Kingdom	69.0	0.18	41.71	0.49	0.23	0.39	0.36	0.64	10.65	10.03	3,388
Sweden	89.0	0.16	43.79	0.52	0.15	0.31	0.5	0.62	10.57	10.1	105
Denmark	0.67	0.14	44.76	0.57	0.17	0.33	0.5	69.0	10.79	9.47	80
Czechoslovakia	0.61	0.18	46.45	0.54	0.2	0.3	0.49	0.49	10.78	9.92	110
Norway	0.57	0.17	42.36	0.56	0.13	0.36	0.48	0.53	10.73	10.03	95
Belgium	0.56	0.14	43.74	0.5	0.16	0.32	0.5	0.59	10.76	10.18	161
Latvia	0.56	0.23	49.85	0.5	60.0	0.52	0.36	0.25	10.41	10.63	22
Hungary	0.55	0.22	46.76	0.45	0.27	0.25	0.44	0.57	10.66	9.84	171
Austria	0.53	0.18	49.81	0.49	0.21	0.31	0.45	0.53	10.87	10.17	426
Germany	0.51	0.18	40.81	0.49	0.23	0.37	0.37	0.67	10.66	9.95	9,625
Netherlands	0.49	0.12	44.21	0.52	0.25	0.36	0.36	0.64	10.84	10.06	472
France	0.46	0.18	41.44	0.47	0.2	0.35	0.41	0.71	10.66	10	1,245
Portugal	0.38	0.14	36.51	0.47	0.38	0.31	0.15	0.76	10.56	9.84	674
Switzerland	0.32	0.11	43.01	0.51	0.11	0.23	0.64	69.0	11.1	9.95	127
Bulgaria	0.26	0.03	39.12	29.0	90.0	0.16	0.78	1	10.9	10.29	12
Romania	0.26	0.04	40.31	0.59	0.26	0.31	0.39	0.78	10.48	10.16	71
Yugoslavia	0.24	80.0	37.93	0.45	0.27	0.35	0.35	0.82	10.81	10.03	229
Poland	0.23	0.11	42.63	0.47	0.32	0.3	0.34	0.68	10.83	10.14	388
Ireland	0.18	0.12	43.44	0.5	0.23	0.35	0.4	99.0	10.78	86.6	258
Albania	0.17	0.17	38.45	0.52	0.38	0.21	0.1	0.78	10.22	9.83	19

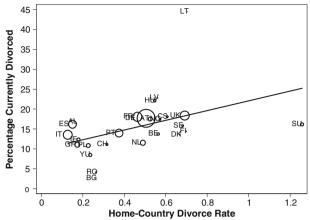


Table 1 (continued)

Home Divor Country of Origin Rate	Home-Country Divorce Rate	Proportion Currently Divorced	Average Age	Proportion Male	Proportion High School Graduate	Proportion Some College	Proportion Bachelors Degree +	Proportion At Least One Child (Females)	Average Log Wage (Males)	Average Log Wage (Females)	Number of Observations
Greece	0.17	0.11	40.34	0.49	0.22	0.31	0.4	0.7	10.65	86.6	437
Spain	0.15	0.16	35	0.47	0.19	0.42	0.36	0.75	10.56	9.95	526
Italy	0.13	0.14	41.81	0.5	0.33	0.31	0.3	0.7	10.7	66.6	1,839
Average	0.48	0.17	41.22	0.49	0.24	0.36	0.37	0.67	10.67	86.6	
SD	0.18	0.37	8.37	0.5	0.43	0.48	0.48	0.47	0.81	1.03	

Notes: Countries of origin are ordered by home-country divorce rate, defined as the number of divorces per 100 married inhabitants. This variable was constructed using information from the United Nations Economic Commission for Europe (UNECE) Statistical Division Database (2011) and United Nations (2006). For reference, the U.S. divorce rate in the year 2000 was 0.97. The other descriptive statistics in the table were constructed using our sample of childhood migrants taken from the 5 % Public Use Microdata Sample of the 2000 U.S. Census. The sample consists of immigrants aged 25-64 who arrived in the United States at age 5 or younger, reside in an identifiable metropolitan area, and who are either married or divorced. The United Kingdom includes England, Scotland, Wales, and "United Kingdom, country not specified." Czechoslovakia includes the Czech Republic.





**Fig. 2** Home-country divorce rates and the probability that childhood-arriving immigrants are divorced. The percentage of immigrants in the United States who are currently divorced is plotted on the *y*-axis, and home-country divorce rates, defined as the number of divorces in the year 2000 per 100 married individuals, are plotted on the *x*-axis. Circle sizes represent the number of immigrants from that particular country of origin in our U.S. census sample of childhood-arriving immigrants

low divorce rates, although this may be explained by the differences in age or education shown in the table.

Figure 2 plots home-country divorce rates on the *x*-axis and the percent of immigrants in our sample that are divorced on the *y*-axis. Larger circles represent countries with more observations in our data set. As can be seen from the figure, immigrants from countries with higher divorce rates are more likely to be divorced in the year 2000. In fact, the slope of the line through the scatter plot suggests that an increase of 1 in the number of divorces per 100 married individuals in a European country is associated with a 9-point increase in the percentage of immigrants from that country who are currently divorced while residing in the United States. Figure 2 certainly provides suggestive evidence that divorce culture matters, but as shown in Table 1, immigrants from different countries differ in terms of gender composition, education, and age—all known determinants of divorce (as discussed in more detail later). In the next section, we turn to multivariate analysis to better identify the effect of culture on being divorced.

## **Results: Culture and Divorce**

## Baseline Model

Table 2 reports regression results from models that include controls for individual-level socioeconomic characteristics. Age is certainly an important determinant of divorce: studies have found that older individuals are less likely to get divorced, conditional on being married (Peters 1986).<sup>10</sup> Given that men are more likely to get

<sup>&</sup>lt;sup>10</sup> In results not reported, we find that age has a positive effect on the probability of currently being divorced. This is presumably because older individuals have had more time to end a marriage.



Table 2 Divorce culture and the probability of being currently divorced

	Baseline Mo	odels	Without Germany	Without Russia and Italy	Divorce Never Justifiable
Dependent Variable: Currently Divorced	(1)	(2)	(3)	(4)	(5)
Home-Country Divorce Rate	0.093**	0.061**	0.052**	0.072*	
	(0.019)	(0.014)	(0.015)	(0.029)	
% of Home-Country Reporting					-0.001*
Divorce Never Justifiable					(0.001)
Male	-0.025**	-0.026**	-0.020**	-0.028**	-0.026**
	(0.004)	(0.004)	(0.006)	(0.004)	(0.004)
High School Diploma or GED	$-0.030^{\dagger}$	$-0.034^{\dagger}$	-0.022	-0.044**	$-0.033^{\dagger}$
	(0.016)	(0.017)	(0.026)	(0.014)	(0.017)
Some College	-0.031	-0.041*	-0.021	-0.054**	$-0.040^{\dagger}$
	(0.020)	(0.020)	(0.025)	(0.015)	(0.020)
Bachelor's Degree or More	-0.099**	-0.103**	-0.078*	-0.120**	-0.102**
	(0.025)	(0.025)	(0.033)	(0.018)	(0.025)
Age Dummy Variables	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	No	Yes	Yes	Yes	Yes
Number of Observations	20,751	20,751	11,126	18,698	20,751
$R^2$	.020	.042	.058	.044	.042

Notes: Home-country divorce rates are defined as the number of divorces per 100 married inhabitants in the country of origin. The sample consists of immigrants aged 25–64 who arrived in the United States at age 5 or younger, reside in an identifiable metropolitan area, and are either married or divorced. We estimate linear probability models in which the dependent variable is an indicator variable equal to 1 if the individual is currently divorced. Column 1 includes controls for gender (male = 1; 0 otherwise) and education (high school diploma or GED, some college, or bachelor's degree or more) as well as a full set of age dummy variables. Column 2 adds MSA fixed effects to the specification. Column 3 drops Germans from the sample, and column 4 drops Russians and Italians. In column 5, home-country divorce rates are replaced with the percentage of people in a person's home country who believe that divorce is never justifiable. Robust standard errors, clustered by country of origin, are in parentheses. Observations are weighted using census-provided person weights.

$$^{\dagger}p < .10; *p < .05; **p < .01$$

remarried (Stevenson and Wolfers 2007), our finding that men are less likely to be divorced than women should not be surprising. Also consistent with the divorce literature, higher levels of education are associated with lower probabilities of divorce, and the college-educated have especially low divorce rates (Becker et al. 1977; Isen and Stevenson 2010; Peters 1986). Most importantly, the estimated effect of home-country divorce rates is positive and statistically significant despite our inclusion of these control variables in the model.

In the second column, MSA fixed effects are added. If immigrants from countries with high divorce rates tend to settle in cities with high divorce rates, it might lead to a bias in the culture coefficient because the cultural proxy may be capturing the effect of U.S. divorce laws and institutions rather than the effect of culture. The estimated coefficient on the divorce cultural proxy decreases by about one-third after including MSA fixed effects in the specification, suggesting that immigrants from countries



with high divorce rates are indeed more likely to reside in U.S. cities with high divorce rates.

Overall, our estimates indicate that when the number of divorces per 100 married individuals in an immigrant's home country increases by 1, we see more than a 6-percentage-point increase in the probability that an immigrant is divorced (column 2, Table 2). In other words, immigrants from Russia—the country with the highest divorce rate, at 1.26—are almost 7 percentage points more likely to be divorced than immigrants from Italy, given Italy's divorce rate of 0.13, which is the lowest among the countries considered.

To check whether these results are sensitive to sample selection, we run several simple robustness checks on the baseline specification. First, we drop Germans from the sample because they are the largest immigrant group and may be driving the results. In another specification, we drop Russia (the country with the highest divorce rate) and Italy (the country with the lowest divorce rate). As shown in Table 2, in both of these specification checks, the estimated divorce rate coefficients remain within about 1 percentage point of our baseline estimate and are both statistically significant.

A country's divorce rate is not the only possible measure of home-country attitudes toward divorce. Using data from the World Values Survey (WVS), we also examine a more direct measure of attitudes about divorce: the percentage of the origin country's population believing that divorce is never justifiable. There is generally a negative relationship between home-country divorce rates and the percentage of the population believing that divorce is never justifiable, but Spain, for example, has particularly favorable attitudes toward divorce conditional on their very low divorce rates. As seen in the last column of Table 2, this measure of divorce culture also has a significant impact on the probability of being divorced for immigrants residing in the United States. Specifically, a 10-percentage-point increase in the percentage of individuals believing that divorce is never justifiable results in a 0.1-point decrease in the probability that an immigrant is divorced. Because of the potential disconnect between what individuals respond in a survey and their genuine attitudes, the home-country divorce rate remains our preferred measure of culture, but it is comforting that results are not sensitive to our choice of cultural proxy.

Cross-Country Differences in Divorce Rates and Unobserved Heterogeneity

A potential concern with our analysis is that even young arriving immigrants from the same country may have characteristics in common that affect divorce tendencies. If

<sup>&</sup>lt;sup>12</sup> Spain's favorable attitudes toward divorce may explain the relatively high proportion of Spanish divorcees in the United States.



<sup>&</sup>lt;sup>11</sup>Respondents to the World Values Survey (WVS) were asked whether they think that divorce can always be justified, never be justified, or something in between (ranging from 1 = never justifiable to 10 = always justifiable). Data are available for four waves: 1981–1984, 1989–1993, 1994–1999, and 1999–2004 (WVS Association 1981, 1990, 1995, 2000). We pool all waves because there is no wave in which all countries considered are available, and we want to include the maximum number of countries in our sample. If culture evolves slowly, it should not matter very much when these preferences are measured or whether the number of waves used to construct our preference variable differs by country. However, as an additional check, we also ran tests using only Wave 2 (1989–1993, which includes information for all countries considered except Greece, and only Wave 4 (1999–2004), which includes information for all countries except Switzerland and Norway. Results were robust.

these unobserved attributes are correlated with home-country divorce rates, we might erroneously interpret our results as evidence of culture even if no divorce taboo actually exists. Unfortunately, data on many of the known correlates of divorce, such as age at marriage and religiosity, are not available in the 2000 U.S. census. Therefore, to determine whether omitted variables are likely to severely bias our results, we start by following the literature in adding several home-country aggregate variables to our baseline model, reproduced in column 1 of Table 3 for convenience. <sup>13</sup>

The relationship between household income and divorce is theoretically ambiguous. Because lawyers and court fees can be very expensive, high-income couples may simply be better able to afford to end a marriage. Moreover, divorce should be more attractive to individuals who can afford to maintain a similar standard of living outside of marriage, again implying a positive relationship between income and divorce. On the other hand, the relationship may also be negative because high-income couples typically own assets, such as a large house and expensive furniture, which are difficult to equitably divide upon divorce (Becker et al. 1977). In any case, given the potential relationship between household income and home-country divorce rates, our estimated coefficient on home-country divorce rates may be measuring the effect of income in addition to, or instead of, divorce taboos. To address this, we would have liked to control for household income of all current and prior marriages, but this information is not available for divorced couples in the census. Moreover, given that household income is likely endogenous to marriage quality, it is unclear that we would want to use this variable even if it were available. Instead, we use home-country GDP per capita, measured in hundreds of thousands of U.S. dollars, as a proxy for household income. As can be seen in column 2 of Table 3, there is no change in the estimated homecountry divorce rate coefficient when this variable is added to the model.

Another empirical regularity documented in the divorce literature is that couples with children are less likely to divorce (Becker et al. 1977; Peters 1986). This may be either because the financial and (especially) emotional costs of divorce are higher when children are involved, or because couples have children only when they envision good long-term prospects for a marriage. If fertility is correlated within ethnicity in the United States for reasons unrelated to culture, then it is important to control for fertility rates in the regressions in order to properly identify the effect of divorce culture. Unfortunately, the census contains information only on the number of children living in the household, which is a very poor measure of fertility, especially for divorced males and older couples. To explore the relationship between children and divorce taboos, we use country-of-origin fertility rates as a proxy for fertility. As shown in column 3 of Table 3, when this variable is added to the baseline model, the estimated coefficient on origin-country divorce rates actually increases by 15 % to 0.07.

<sup>&</sup>lt;sup>14</sup> The total fertility rate is defined as the average number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the age-specific fertility rates of a given year. One potential issue with this variable is that fertility rates have changed quite dramatically in Europe in the past century, making home-country fertility rates in the year 2000 a poor proxy for fertility rates of immigrants who arrived in the United States many years prior. To address this, we ran regressions using home-country total fertility rates at the time of migration as opposed to at the time of the survey. Results were robust to this specification. See Table S3 in Online Resource 1 for details on data sources.



<sup>&</sup>lt;sup>13</sup> See Tables S2 and S3, respectively, in Online Resource 1 for summary statistics on these variables and for a description of our data sources.

Table 3 Home-country differences and the probability of being currently divorced

Dependent Variable: Currently Divorced	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Home-Country Divorce Rate	0.061** (0.014)	0.061** (0.013)	0.070** (0.015)	0.053** (0.012)	0.075** (0.014)	0.053** (0.016)	0.061** (0.014)	0.114** (0.021)
Male	-0.026**	-0.026**	-0.026**	-0.026**	-0.026**	-0.026**	-0.026**	-0.026**
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
High School Diploma or GED	$-0.034^{\dagger}$ (0.017)	$-0.034^{\dagger}$ (0.017)	$-0.034^{\dagger}$ (0.017)	$-0.031^{\dagger}$ (0.017)	$-0.034^{\dagger}$ (0.017)	-0.035* (0.017)	$-0.034^{\dagger}$ (0.017)	-0.033 <sup>†</sup> (0.017)
Some College	-0.041*	-0.041*	-0.041*	$-0.039^{\dagger}$	-0.041*	-0.043*	-0.042*	$-0.041^{\dagger}$
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
Bachelor's Degree or More	-0.103** (0.025)	-0.103** (0.025)	-0.103** (0.025)	-0.100** (0.026)	-0.103** (0.025)	-0.105** (0.025)	-0.103** (0.025)	-0.102** (0.026)
Country-of-Origin GDP		-0.00003 (0.057)						$-0.255^{\dagger}$ (0.145)
Country-of-Origin Total Fertility Rate			-0.034 (0.028)					-0.059* (0.023)
Country-of-Origin Proportion Weekly Church Attendance				-0.084** (0.030)				-0.004 (0.038)
Country-of-Origin Proportion Catholic					0.012 (0.011)			0.028* (0.012)
Country-of-Origin Ethnic Endogamy Rate						-0.085* (0.045)		$-0.157^{\dagger}$ (0.082)
Country-of-Origin Average Female Age at First Marriage							0.001 (0.003)	0.009 (0.006)
Age Dummy Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	20,751	20,751	20,751	20,529	20,751	20,751	20,751	20,529
$R^2$	.042	.042	.042	.042	.042	.042	.042	.043

Notes: Home-country divorce rates are defined as the number of divorces per 100 married inhabitants in the country of origin. The sample consists of immigrants aged 25–64 who arrived in the United States at age 5 or younger, reside in an identifiable metropolitan area, and are either married or divorced. We estimate linear probability models in which the dependent variable is an indicator variable equal to 1 if the individual is currently divorced. All specifications include controls for gender (male = 1; 0 otherwise) and education (high school diploma or GED, some college, or bachelor's degree or more) as well as a full set of age dummy variables and MSA fixed effects. Robust standard errors, clustered by country of origin, are in parentheses. Observations are weighted using census-provided person weights. Descriptive statistics for the country-of-origin-level control variables are available in Table S2 in Online Resource 1.

Next, we consider the relationship between religiosity and country-specific divorce taboos. Beliefs about the morality of divorce are certainly transmitted through religion. The Catholic Church, for example, teaches that marriages are indissoluble, while more liberal Protestant denominations support no-fault divorce laws (Bahr and Chadwick 1985). Apart from direct prohibitions of divorce, many religions have very family-centered rituals (Lehrer and Chiswick 1993), which might make divorce more costly for those heavily involved with their religious communities. To examine the



 $<sup>^{\</sup>dagger}p$  < .10;  $^{*}p$  < .05;  $^{**}p$  < .01

role of religiosity in transmitting divorce culture, we add to our baseline model a country-of-origin level variable measuring the proportion of the home-country population that attends religious services weekly.

It is difficult to interpret results from a regression that includes a measure of religiosity. If the estimated home-country divorce rate coefficient is smaller in models that include home-country religiosity, this may simply suggest that norms about divorce are transmitted through religion. However, it may also be that a person's divorce tendencies are related solely to his or her personal religious beliefs, which may be independent of cultural transmission. The evidence of the effect of religiosity on divorce is mixed. Lehrer and Chiswick (1993) found that more religious individuals have a lower probability of divorce, but Trent and South (1989) failed to find any significant effect of religion on divorce probabilities. Ultimately, it is difficult to distinguish between the two even within a thought experiment because the practice of most religions is very social. An additional problem is that more socially liberal countries tend to have more lenient attitudes toward divorce and also happen to be less religious. However, results shown in column 4 of Table 3 suggest that these distinctions are not empirically important for our purposes. Although religiosity, as measured by weekly church attendance, has a negative and statistically significant effect on the probability of being currently divorced, the home-country divorce coefficient decreases only slightly and remains positive and statistically significant after controlling for religiosity. 15 We also add proportion Catholic in the home country to the model in column 5. The inclusion of this variable actually increases the estimated effect of home-country divorce rates.

Another potentially important predictor of divorce is whether the marriage is an interethnic marriage. Differences in tastes, values, and communication styles may make it difficult for spouses of different ethnicities to make joint decisions, or they may lack the social support necessary to work out their differences (Kalmijn et al. 2004). Meanwhile, cross-ethnicity differences in endogamy rates may result from reasons completely unrelated to divorce taboos. For example, ethnic groups that are more residentially dispersed may find it difficult to find sameethnicity spouses.<sup>16</sup> Given that exogamous marriages are more likely to end in divorce (Kalmijn et al. 2004), our estimated coefficient on home-country divorce rates will be biased if endogamy patterns in the United States happen to be correlated with home-country divorce rates. To examine this issue, we construct endogamy rates by European ethnic group for our sample of married males who arrived in the United States at age 5 or younger, using 2000 U.S. Census data. The endogamy rate is defined as the proportion of couples where the husband's country of birth matches the country of birth of the wife. Consistent with the theoretical predictions in Becker et al. (1977) and the empirical findings of Kalmijn (1993), results in column 6 of Table 3 suggest that people in ethnic groups with higher endogamy rates are less likely to be

<sup>&</sup>lt;sup>16</sup>For details on the determinants of intermarriage for first- and second-generation immigrants, see Chiswick and Houseworth (2008) and Furtado and Theodoropoulos (2011).



<sup>&</sup>lt;sup>15</sup> Religiosity measures are not available for Norway and Switzerland in the WVS. We reran our baseline regressions without observations from these countries, and the results held.

currently divorced. However, adding this variable to the specification does not significantly change the coefficient associated with divorce culture.

Finally, many researchers have documented a negative relationship between age at marriage and divorce propensity. For example, Becker et al. (1977) suggested that because young people have less information about themselves, their potential spouses, and the marriage market more generally, new information acquired within marriage might make marital dissolution optimal. In column 7 of Table 3, country-of-origin average female age at first marriage is added to the baseline specification. Again, adding this variable to the regression has no impact on our measure of the effect of divorce culture.

Column 8 shows regression results from a specification that includes all country-of-origin variables. The full model is suggestive of an even stronger impact of culture on being divorced than the baseline model: the estimated coefficient on our cultural proxy almost doubles, from 0.06 to 0.11.

A potential problem with these origin-country controls is that immigrants may not be a very representative sample of the population in their home countries. They may have very different characteristics from nonmigrants but still display similarities with each other that happen to be correlated with home-country divorce rates. For example, migrants may display patterns of adventure-seeking behavior and risk aversion that are quite different from nonmigrants. Moreover, immigrants tend to migrate from specific areas of home countries, making them potentially very similar to each other but again quite different from the average nonmigrant.

To address these issues, we follow Fernández and Fogli (2009) in conducting placebo regressions. If there were an unobserved social characteristic, such as risk aversion or fertility, correlated with home-country divorce rates but independent of divorce norms and taboos, we might expect it to affect marriage rates as well. Similarly, unobserved human-capital characteristics that might affect people's prospects upon leaving a marriage would surely also affect wages. Table 4 presents results from these placebo regressions. We find that divorce culture has a much stronger impact on divorce (0.06) than on the probability of never having married (0.03), and the latter is not statistically significant. We run similar regressions with log wage—a measure of unobserved human capital—as the dependent variable for the whole sample as well as for men and women separately. Home-country divorce rates have no statistically significant impact on wages, suggesting that unobserved human capital is not likely to bias our baseline estimates.

<sup>&</sup>lt;sup>19</sup> From a theoretical perspective, it is possible that divorce taboos have a causal effect on marriage rates if, for example, women delay marriage more when they expect that divorce is more likely. Similarly, if women from countries with high divorce rates lack the protective effect of divorce stigma on marriage, they may invest more in their human capital, thereby increasing their wages. We find, however, that these second-order effects are not empirically important.



<sup>&</sup>lt;sup>17</sup> Becker et al.'s (1977) theoretical analysis points to a nonlinear relationship between age at marriage and divorce propensity given that people who remain unmarried by a certain age are more likely to marry suboptimal spouses. In fact, their empirical work suggests that people who marry for the first time later in life have the highest probability of marital dissolution.

Whether these omitted characteristics are problematic for our baseline analysis depends on the relationship between these characteristics and home-country divorce rates. If, for example, all migrants were more "willing to experience new things" than nonmigrants, regardless of their country of origin, then our analysis —which relies on cross-country variation—would not suffer from any bias.

Table 4 Placebo regressions

	Coefficient <sup>a</sup>
Panel A. Divorce Culture and Never Married	
Dependent Variable: Currently Never Married	
Home-country divorce rate	0.028
	(0.027)
Number of observations	25,943
$R^2$	.137
Panel B. Divorce Culture and Wages, Males and Females	
Dependent Variable: Log Wage	
Home-country divorce rate	-0.031
	(0.036)
Number of observations	17,159
$R^2$	.242
Panel C. Divorce Culture and Wages, Males	
Dependent Variable: Log Wage	
Home-country divorce rate	-0.067
	(0.044)
Number of observations	8,978
$R^2$	.188
Panel D. Divorce Culture and Wages, Females	
Dependent Variable: Log Wage	
Home-country divorce rate	0.001
	(0.055)
Number of observations	8,181
$R^2$	.133

*Notes:* Home-country divorce rates are defined as the number of divorces per 100 married inhabitants in the country of origin. The sample consists of immigrants aged 25–64 who arrived in the United States at age 5 or younger, reside in an identifiable metropolitan area, and are either married or divorced. All specifications include controls for gender (male = 1; 0 otherwise) and education (high school diploma or GED, some college, or bachelor's degree or more) as well as a full set of age dummy variables and MSA fixed effects. Robust standard errors, clustered by country of origin, are in parentheses. Observations are weighted using census-provided person weights.

#### Gender and Culture

For even further evidence that our results reflect the effect of divorce culture, we separate the sample by gender. If as suggested by Heaton and Blake (1999), women are more attentive to their marital roles while men are more attentive to their worker roles, women are likely to be more sensitive to any divorce stigma than men. This can be interpreted in light of identity models (e.g., Akerlof and Kranton 2000) if women lose identity for being divorced to a greater extent than men, given the gendered convention that "women should stand by their men." Interestingly, although men are more likely than women to end club memberships post-divorce, women experience greater declines in contacts with friends and family after divorce (Kalmijn



<sup>&</sup>lt;sup>a</sup> None of the coefficients are significant at conventional levels.

and Uunk 2007). In general, wives are more perceptive of marital problems than husbands and play a larger role in relationship maintenance (Heaton and Blake 1999). Because women are more likely to instigate divorce (Brinig and Allen 2000; Kalmijn and Poortman 2006), then their real or perceived costs of divorce ultimately determine whether a marriage dissolves. Thus, if divorce stigma is really driving our results, we would expect women to be more sensitive to home-country divorce rates than men.

Another reason to separate the sample by gender is that it allows us to include some important control variables—specifically, wages, and whether there is a young child in the household—which are omitted from the baseline specification due to endogeneity concerns. Higher incomes of husbands are associated with smaller likelihoods of divorce, whereas the earnings potentials of women, if anything, are associated with increases in the probability of divorce (Burgess et al. 2003; Jalovaara 2003; Weiss and Willis 1997). As we discuss earlier, if average wage income differs by country of origin in a way that is correlated with home-country divorce rates, our estimated effect of culture may simply be picking up differences in wages. We do not control for wages in our baseline specifications because women who will eventually divorce have higher labor force participation rates than married women who never divorce (Johnson and Skinner 1986). Thus, controlling for this endogenous variable would lead to biased coefficients in models that include both males and females. That said, because more men work regardless of marital status (89 % of men in our sample earn a wage, compared with only 77 % of women), we do not expect this variable to result in estimated coefficients that are as severely biased in an all-male sample.<sup>20</sup>

Similarly, although we would have liked to control for children born in first marriages, the 2000 U.S. Census provides information only on children residing in the household. Because in many cases divorced fathers do not reside with their children, controlling for the presence of children in the household may result in severe endogeneity bias in our male sample. However, because mothers typically live with their children regardless of marital status, it seems reasonable to control for this variable in our female sample.

Table 5 presents results separately for men and women. Raw correlations between culture and the probability of being divorced shown in the first and fourth columns suggest that women are more heavily influenced by culture than men, although the gender difference is not precisely estimated. Both estimated home-country divorce rate coefficients are smaller in the full specifications (shown in the second and fifth columns) than in the baseline specifications. Again, the gender difference in the effect of culture is not statistically significant, but the point estimates suggest that women are almost 50 % more sensitive to home-country divorce rates than men. When wages are added to the male

<sup>&</sup>lt;sup>20</sup> Notice that data on labor market income refer to the previous year (i.e., April 1999 to March 2000) as opposed to the year in which divorce decisions were made. This mismatch is also an issue in our measures of age and number of children. Unfortunately, because retrospective information is not available in the census, we must use current values as proxies for the variables measured at the time of divorce. To examine whether this leads to severely biased estimates, we follow Ruggles (1997) in restricting the sample to younger individuals who would have significantly smaller chronological mismatches. Our results continue to hold.



specification in column 3 of Table 5, the estimated culture coefficient decreases slightly but remains positive and statistically significant.<sup>21</sup> Consistent with the literature, an increase in a male's wages results in decreases in the probability that he is currently divorced.

As shown in column 6 of Table 5, the presence of a child currently residing in the household is negatively associated with the probability that a woman is divorced by about 14 percentage points. This is consistent with the literature showing that children also have a stabilizing effect on marriages (Waite and Lillard 1991). When this measure of the presence of children is added to the model, the coefficient on divorce culture decreases slightly but remains positive and statistically significant, suggesting that cross-ethnicity differences in fertility are not driving our culture results.<sup>22</sup>

Mindful of the potential bias that may result, we also add female wages to the model in column 7 of Table 5. As expected, female wages are associated with higher divorce rates. Interestingly, the divorce culture coefficient decreases only slightly and remains statistically significant when this variable is added. We conclude, therefore, that divorce norms and taboos are likely to be important drivers of divorce patterns.

#### **Cultural Transmission and Peer Effects**

In this section, we explore how divorce culture is transmitted from person to person. Parents certainly instill in their children a set of values about family and divorce, and these values get passed down from generation to generation. In fact, this vertical transmission of culture is often cited as a possible explanation for why children of divorced parents are more likely to divorce (Amato 1996; Gruber 2004). It is also possible that home-country divorce culture has no effect on the divorce decisions of immigrants in our sample but that immigrants simply respond to whether their own parents are divorced. To address this issue, we would have liked to control for whether a person's parents were divorced, but this information is not available in the data. Instead, we examine whether immigrants' sensitivities to home-country divorce rates differ depending on whether they live in predominantly same-ethnicity communities. Under the rather strong assumption that parental divorce rates are the same regardless of where families live, we might interpret a stronger

<sup>&</sup>lt;sup>22</sup> Interpretation of results with controls for children in the household may remain problematic even in regressions run on the female sample. First, the reverse causality issue remains in that women are less likely to bear children after a divorce. In addition, children living in the household at the time of the survey are likely to be a bad proxy for children ever born, especially for older women. Because Suchindran and Koo (1992) reported that, on average, women have their last births in their 30s, we address this concern by running the regressions on a younger sample of women, ages 25 to 50. Restricting the sample in this way results in smaller and less statistically significant estimated coefficients on our divorce cultural proxy. However, just as in the older sample, adding controls for children in the household does not significantly change the estimated coefficient on home-country divorce rates.



<sup>&</sup>lt;sup>21</sup> Sample sizes are smaller in specifications controlling for wage because they do not include individuals who are not employed. When we compare results from regressions with and without wage controls using only samples of employed workers, conclusions are the same: although wages do affect divorce tendencies, home-country divorce rates remain significant predictors of divorce probabilities even in specifications that control for wages.

**Table 5** Divorce culture and the probability of being currently divorced by gender

	Males			Females			
Dependent Variable: Currently Divorced	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Home-Country Divorce Rate	0.073**	0.050**	0.042**	0.102**	0.074**	0.063**	0.068**
	(0.013)	(0.014)	(0.014)	(0.033)	(0.021)	(0.020)	(0.022)
High School Diploma or GED		-0.029	-0.004		-0.033	-0.033	-0.032
		(0.020)	(0.019)		(0.024)	(0.024)	(0.033)
Some College		-0.072*	-0.031		-0.009	-0.009	-0.012
		(0.028)	(0.022)		(0.024)	(0.024)	(0.031)
Bachelor's Degree or More		-0.135**	-0.070*		-0.066*	-0.071**	-0.095**
		(0.032)	(0.025)		(0.026)	(0.025)	(0.033)
Log (Annual Wage Income)			-0.058**				0.024**
			(0.004)				(0.002)
At Least One Child in Household						-0.137**	-0.122**
						(0.011)	(0.010)
Age Dummy Variables	No	Yes	Yes	No	Yes	Yes	Yes
MSA Fixed Effects	No	Yes	Yes	No	Yes	Yes	Yes
Number of Observations	10,074	10,074	8,978	10,677	10,677	10,677	8,181
$R^2$	.001	.059	.075	.002	.061	.085	.098

Notes: Home-country divorce rates are defined as the number of divorces per 100 married inhabitants in the country of origin. The samples, separated by gender, consist of immigrants aged 25–64 who arrived in the United States at age 5 or younger, reside in an identifiable metropolitan area, and are either married or divorced. We estimate linear probability models in which the dependent variable is an indicator variable equal to 1 if the individual is currently divorced. All specifications include controls for gender (male = 1; 0 otherwise) and education (high school diploma or GED, some college, or bachelor's degree or more) as well as a full set of age dummy variables and MSA fixed effects. Robust standard errors, clustered by country of origin, are in parentheses. Observations are weighted using census-provided person weights.

relationship between home-country divorce rates and own divorce probabilities in predominantly ethnic communities as evidence that culture is horizontally transmitted through neighborhood effects.

As described in Fernández and Fogli (2009), local communities can preserve culture either by providing role models for acceptable family arrangements or by punishing behavior different from the norm. Indeed, McDermott et al. (2009) found that divorce spreads across friends, siblings, and coworkers. Similarly, several papers have found that communities whose members are more socially integrated (as measured by church membership, urbanicity, and population change) have lower divorce rates (Breault and Kposowa 1987; Glenn and Shelton 1985).

To identify the role of network effects in the probability of being divorced, we use an empirical strategy similar to that in Bertrand et al.'s (2000) work on network effects and welfare cultures. Because European divorce rates are lower than U.S. divorce rates (see note in Table 1), if culture is transmitted within local communities, we might expect that immigrants living in predominantly ethnic areas will be less likely to divorce than immigrants living among Americans. Moreover, the effect of ethnic concentration should be particularly strong for immigrants in ethnic



p < .05; \*\*p < .01

groups with especially low divorce rates. To formalize this idea, consider the following equation:

$$D_{ijk} = \alpha_1 P_{jk} + \alpha_2 P_{jk} \times DR_j + \mathbf{X}_{ijk} \alpha_3 + \delta_k + \gamma_j + e_{ijk}, \qquad (2)$$

where the proportion of individuals in the immigrant's metropolitan area from the same country of origin is denoted  $P_{jk}$ ,  $\gamma_j$  represents country-of-origin fixed effects, and  $e_{ijk}$  is an error term. The other variables are defined as before. If culture is transmitted within communities and immigrants typically have lower divorce rates than natives, we may expect that an increase in the concentration of individuals from one's country of origin results in a decrease in divorce rates, so  $\alpha_1$  should be negative. The country-of-origin fixed effects will absorb any determinant of divorce, which varies systematically by country of origin. This certainly includes the country-of-origin divorce rate used in our original specification, but the fixed effects will also control for any unobserved determinants of divorce common to all people from the same origin country.

Our variable of interest is the interaction between ethnic concentration and home-country divorce rate. As we discuss earlier, an increase in the concentration of same-ethnicity immigrants should decrease divorce rates more for immigrants from countries with low divorce rates than for immigrants from high-divorce countries. For example, because the divorce rate in Russia is higher than the divorce rate in Italy, an increase in the concentration of same-ethnicity immigrants should have a more negative effect on Italians than Russians. In fact, if divorce rates of Russians who immigrate to the United States—probably a nonrandom sample of Russians—are higher than the divorce rates of Americans, we might expect Russian immigrants surrounded by other Russians to have higher divorce rates than Americans. In any case, we expect  $\alpha_2$  to be positive.

Table 6 presents regression results. As shown in the first column, ethnic concentration has a statistically insignificant effect on divorce rates. When the home country's divorce rate is added in the second column, the concentration coefficient remains insignificant, but the home-country divorce rate has the expected positive sign, and the magnitude is the same as the value in our baseline specification presented in column 2 of Table 2. In the third column of Table 6, the interaction between origin-country divorce rate and ethnic concentration is added to the model, and as predicted, the coefficient on the interaction is positive and statistically significant. Moreover, when the interaction is included, the estimated coefficient on the concentration variable becomes negative, although it is still not statistically significant.

Because we are identifying the role of culture off of variation in the *interaction* between ethnic concentration and home-country divorce rate in this model, we can replace home-country divorce rate with home-country dummy variables. As can be seen in column 4 of Table 6, our coefficient of interest increases from 0.58 to 0.93 and becomes highly significant, again confirming that an increase in the concentration of immigrants leads to a larger decrease in the probability of being currently divorced for immigrants from countries with relatively low divorce rates. A 10-percentage-point increase in the concentration of coethnics leads to a 4-percentage-point decrease in the probability of being currently divorced for Italians (the total divorce rate in Italy is 0.13) but only about a 0.5-percentage-point decrease in the probability that a



Table 6 Cultural transmission and the probability of being currently divorced

Dependent Variable: Currently Divorced	(1)	(2)	(3)	(4)
Proportion of MSA With Same Origin	0.038	0.021	-0.233	-0.520**
	(0.094)	(0.086)	(0.168)	(0.142)
Home-Country Divorce Rate		0.061**	0.031	
		(0.013)	(0.024)	
Proportion of MSA With Same Origin			$0.575^{\dagger}$	0.925**
× Home-Country Divorce Rate			(0.311)	(0.250)
Male	-0.026**	-0.026**	-0.026**	-0.025**
	(0.004)	(0.004)	(0.004)	(0.004)
High School Diploma or GED	$-0.033^{\dagger}$	$-0.034^{\dagger}$	$-0.034^{\dagger}$	$-0.034^{\dagger}$
	(0.017)	(0.017)	(0.017)	(0.017)
Some College	$-0.039^{\dagger}$	-0.041*	-0.042*	-0.043*
	(0.020)	(0.020)	(0.020)	(0.020)
Bachelor's Degree or More	-0.101**	-0.103**	-0.103**	-0.105**
	(0.025)	(0.025)	(0.025)	(0.025)
Age Dummy Variables	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes
Country-of-Origin Fixed Effects	No	No	No	Yes
Number of Observations	20,751	20,751	20,751	20,751
$R^2$	.041	.042	.042	.045

*Notes*: Home-country divorce rates are defined as the number of divorces per 100 married inhabitants in the country of origin. The sample consists of immigrants aged 25–64 who arrived in the United States at age 5 or younger, reside in an identifiable metropolitan area, and are either married or divorced. We estimate linear probability models in which the dependent variable is an indicator variable equal to 1 if the individual is currently divorced. All specifications include controls for gender (male = 1; 0 otherwise) and education (high school graduate or GED, some college, or bachelor's degree or more) as well as a full set of age dummy variables and MSA fixed effects. Robust standard errors, clustered by country of origin, are in parentheses. Observations are weighted using census-provided person weights.

$$^{\dagger}p < .10; *p < .05; **p < .01$$

German is currently divorced (the German divorce rate is 0.51). In fact, the same 10-percentage-point increase in the concentration of Russians results in more than a 6-percentage-point *increase* in the probability of currently being divorced for Russians (the Russian divorce rate is 1.26).

As we discuss earlier, an attractive feature of this approach is that it can speak to many of the potential sources of bias in our main specification. By including country-of-origin fixed effects, we are implicitly controlling for all characteristics that vary by country but that cannot be interpreted as divorce culture. Besides parental divorce rates, examples might include tendencies toward domestic violence, adultery, and drug or alcohol abuse. We are not claiming that in itself this is a foolproof method of identifying divorce culture given that immigrants who choose to reside among coethnics may have preferences and constraints similar to those in their ethnic groups. However, it is comforting that the different methods of identifying culture point to the same basic conclusion: the differences in divorce rates in Europe cannot be explained entirely by laws and institutions. Our evidence suggests that culture plays an important role.



#### Conclusion

In this article, we aim to rigorously disentangle the effects of markets and institutions from the effects of culture in determining divorce decisions. Because immigrants who arrived in the United States as young children absorb home-country culture from their parents and ethnic communities but are also exposed to U.S. laws and institutions, we interpret the positive estimated effect of home-country divorce rates on their divorce probabilities as evidence of the role of culture.

We view our results as strong evidence that cross-country variation in divorce laws, welfare policies, and economic conditions in Europe cannot entirely explain the observed variation in divorce rates. Using several techniques, we make a case for the importance of culture in divorce decisions, but we also acknowledge that our list of controls is rather limited. For example, determinants of divorce not considered in our analysis include whether the marriage is a first, second, or third marriage; premarital childbearing (White 1990); unexpected economic shocks (Boheim and Ermisch 2001; Weiss and Willis 1997); and premarital cohabitation (Lillard et al. 1995). Our omission of these variables is partly due to data limitations, but it is unclear whether we would want to include a long list of controls even if the data were available. Attitudes about divorce may impact divorce rates through marriage, birth timing, and cohabitation decisions, and thus including these controls would limit the avenues through which culture is allowed to operate. All in all, we view our results as evidence in favor of the role of culture but believe that a more thorough examination of the mechanisms through which culture operates is an interesting question for future research.

Cross-country differences in culture may explain the findings in the literature that similar changes in divorce laws have very different effects on divorce outcomes (Allen 1998; Smith 1997; van Poppel and de Beer 1993). Moreover, the interplay between culture and laws may help explain why policies resulting in small short-term increases in divorce rates may have large long-term effects. Differences in culture may also reconcile the empirical observation that decreases in reported well-being after a divorce differ across countries (Kalmijn 2009). We leave an examination of these issues for future research.

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