# Does Culture Affect Divorce Decisions? Evidence from European Immigrants in the US\*

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**Abstract** 

This paper explores the role of culture in determining divorce decisions by examining cross-

ancestry differences in divorce rates of immigrants in the United States. Because childhood-

arriving immigrants are all exposed to a common set of US 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 GDP. Moreover, specifications with country of origin

fixed effects suggest that divorce probabilities are especially low for immigrants from countries

with low divorce rates that reside amidst a large number of co-ethnics. 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

## 1 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 the permissiveness of the laws and the likelihood of divorce, at least in the short run (Wolfers 2006; González and Viitanen 2009). Although differences in laws may have explained cross-country variation in divorce rates in the past, the current rather homogenous divorce law regime across Europe (González and Viitanen 2009) is unlikely to account for divorce rates which still vary substantially across countries (see Table 1). An alternative potential explanation lies in crosscountry 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 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 vary by country include unemployment rates (Jensen and Smith 1990), tax laws (Dickert-Colin 1999), laws regarding property distribution within marriage (Gray 1998), and laws concerning alimony payments, child support (Nixon 1997; Heim 2003), and child custody (Halla 2009). In this paper, we present evidence suggesting that culture also plays an important role.

Following Fernandez (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. International migrants cannot bring with them the economies

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<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, then the divorce is not necessarily granted.

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 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 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. 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 which are more accepting of divorce. To separate the effect of culture from institutions on an individual's probability of divorce, we examine divorce patterns of immigrants from Europe who arrived in the US at or under the age of 5. Immigrants in our sample have lived under the laws, institutions, and markets of the United States. However, since preferences are likely to reflect the attitudes of their parents and ethnic communities, differences in divorce rates by country of origin may be interpreted as evidence of the importance of culture. If home country divorce rates can explain divorce patterns of childhood immigrants who have spent most of their lives exposed to US 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 the 2000 US Census to estimate the probability that a European immigrant who arrived in the US as a young child is divorced, based on the person's home country crude divorce rate (CDR) - defined as the number of divorces in a year per 1,000 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 CDR increases by one, the probability that an immigrant in the US is divorced increases by almost three percentage points. Thus, given that Russians have the highest CDR of 4.28 and Italians have the lowest CDR of 0.65, our model predicts that Russians are over 10 percentage points more likely to be divorced than immigrants from Italy.

Our results contribute to a growing literature on the effect of culture on economic outcomes (See Fernández and Fogli (2005) and Guiso et al. (2006) for a review.) 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 and Fogli 2006; Fernández 2007; and Fernández and Fogli; 2009), living arrangements (Giuliano 2007), unemployment rates (Brügger et al. 2009), and preferences for a child's sex (Almond et al. 2009). Not only do we add to this literature by examining divorce rates, but we provide additional pieces of evidence that imply that our results are not driven by unobserved heterogeneity across ethnic groups

First, we explore whether these cross-ancestry differences in divorce probabilities are driven by unobserved characteristics, unrelated to divorce culture, which happen to be correlated with home country divorce rates. For example, given that divorce rates are higher among couples that marry young (Lehrer 2008) and have fewer children (Svarer and Verner 2008), 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 country of origin level variables to our main specification. In all models, the 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 the probability of never having been married. If some unobserved characteristic, such as female earnings ability, were the main factor explaining the cross-ancestry differences in divorce patterns, then we might expect it to also affect the probability of marriage. It turns out, however, that there is no statistically significant relationship between home country divorce rates and the probability of being single. This is a particularly strong test since strong divorce taboos may decrease the likelihood of entering less stable marriages, but we present additional pieces of evidence suggesting that divorce prohibitions predominantly impede the exit from marriages as opposed to changing the likelihood of entering bad marriages.

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

In the last section, we present 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 with the same ancestry leads to a larger decrease in the probability of being divorced for immigrants from countries with lower crude divorce rates. Moreover, the fact that we even find evidence of culture in specifications including country of origin fixed effects suggests that our analysis *is* identifying the role of culture as opposed to unobserved individual characteristics that happen to be correlated within ethnic groups.

The paper is organized as follows. Section 2 presents the empirical strategy, and Section 3 describes the data. Baseline results and robustness checks are discussed in Section 4. Section 5 explores gender differences in the impact of culture on divorce, and Section 6 presents evidence of peer effects in the transmission of divorce culture. Section 7 concludes.

## 2 Empirical Strategy

Our empirical approach makes use of the fact that all European immigrants who arrived in the US at a young age are, and have been, exposed to US markets and institutions. This observation implies that if only markets and institutions matter, home country divorce rates should have no effect on the divorce decisions of these immigrants. Conversely, if attitudes about divorce get passed down from generation to generation and within ethnic communities, then home country divorce rates will have a positive effect on divorce probabilities of immigrants and their children. Thus, differences in divorce rates of young arriving immigrants across European ancestries might be interpreted as evidence of culture.

The following equation forms the empirical framework of this analysis:

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

where  $D_{ijk}$  is an indicator variable for whether individual i of cultural origin j who lives in metropolitan area k reports being divorced. Our measure of culture,  $DR_{i}$ , is the crude 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. Home country divorce rates reflect home country markets, laws, and other institutions as well as norms and preferences. Since we are considering only the divorce patterns of childhood migrants, the part of home country divorce rates measuring markets and institutions should have no impact on divorce probabilities. However, 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, as higher crude divorce rates should be associated with more liberal attitudes regarding divorce.

The vector  $X_{ijk}$ , includes individual characteristics that may affect divorce rates for reasons unrelated to culture. Metropolitan statistical area (MSA) fixed effects, denoted  $\delta_k$ , are included to control for regional variation in US divorce rates that might arise from cross-city differences in US divorce attitudes or cross-state differences in divorce laws (Gruber 2004; Friedberg 1998).

Ideally, we would ask whether culture affects the probability that a person ever divorces, conditional on having ever been married. Unfortunately, there is no recent data set that contains information on ever having been divorced that also meets all of our variable and sample size requirements. Figure 1 uses data from the World Values Survey and the UN Demographic Yearbook to show that remarriage rates are higher in countries with larger proportions of the population reporting to have ever been divorced (details on variable construction can be found in Appendix C). Thus, if in the US, people from high divorce countries are more likely to remarry,

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

conditional on having ever divorced, all of our estimated effects of culture on current divorce status may be interpreted as lower bounds of the cultural effect on the probability of ever having been divorced. Using 1980 Census data, the last Census to ask for information on marital history, we have also compared 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.<sup>3</sup>

#### 3 Data

In our main analysis, we use data from the five percent Public-Use Microdata Sample (PUMS) of the 2000 US census. Our sample consists of immigrants from Europe who arrived in the US when they were five years of age or below. These immigrants all grew up under US laws, institutions, and markets, but their attitudes are likely to reflect the attitudes of their ethnic communities. Given that marriage is a prerequisite of divorce, we restrict the sample to those who are either married or divorced. We keep only those immigrants whose first reported ancestry corresponds to their country of birth in order to establish a stronger link between culture and place of birth. Immigrants from conflict zones such as Yugoslavia and Albania are not included in the sample. Lastly, we keep only residents of identifiable MSAs. Our final sample consists of 12,069 immigrants from 24 different European countries. The United Kingdom includes England, Scotland, Wales and "United Kingdom, country not specified." Czechoslovakia includes the Czech Republic.

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<sup>&</sup>lt;sup>3</sup> Results are available upon request.

<sup>&</sup>lt;sup>4</sup> The estimated divorce culture coefficient is similar, although slightly smaller, when we do not impose this restriction.

Much of the previous literature using the epidemiological approach to identify the effect of culture uses second-generation immigrants instead of first-generation immigrants, the rationale being that second-generation immigrants have been exposed to U.S. markets and institutions their entire lives and are unlikely to suffer from language barriers (Fernandez and Fogli 2006; Fernández 2007; Fernández and Fogli 2009; Giuliano 2007). We cannot use second-generation immigrants because the 1970 Census was the last to ask respondents about parents' countries of birth. Because divorce patterns have changed so dramatically in the past 30 years, we feel it is important to use the more recent data.<sup>5</sup> In any case, the early childhood immigrant arrivers in our sample are surely very similar to the native born children of immigrants.

For our main analysis, we use the crude divorce rate in the year 2000 in the immigrant's country of origin as our cultural proxy. The U.N. Demographic Yearbook, our source of data on crude divorce rates, defines divorce as the final legal dissolution of marriage, conferring on both involved parties the right to remarry as defined by the laws of each country. An approach often used in the literature is to estimate the year of migration for the average person in the sample (or the person's parents when using second-generation immigrants) and then measure home country divorce rates in that year. As can be seen in Table A1 of Appendix A, we have run the analysis measuring home country divorce rates in various years, and results remain robust, which is not surprising if culture evolves slowly. We choose to focus on crude divorce rates for 2000 because many country boundaries change over the years, and using the 2000 data makes it easier to match countries of origin defined in the Census with home country divorce rates.

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<sup>&</sup>lt;sup>5</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 presents summary statistics of the relevant variables by country of origin. Countries of origin are ordered from highest to lowest CDR. Column 1 shows large CDR variation across countries: from 4.28 divorces per 1,000 inhabitants in Russia to 0.65 in Italy. The percent divorced in our childhood arriver sample is shown in the second column. Immigrants from countries with high crude divorce rates are more likely to be divorced than immigrants from countries with low divorce rates. Immigrants from Portugal, Spain, Greece and Germany tend to be younger than those in other groups suggesting a relatively more recent arrival of these groups to the US. Approximately 30% of our sample has at least a college degree, although education levels range widely across ancestries with Portugal having the lowest proportion of immigrants with at least a college degree (14%) and Switzerland the highest (48%). Greek and Portuguese women have higher probabilities of having at least one child in the household, while Latvians and Austrians have rather low fertility rates. Male wage income is highest for Bulgarians and lowest for Lithuanians, while female income is highest for Latvians and lowest for Russians.

### 4 Results: Culture and Divorce

#### 4.1 Baseline Model

Table 2 reports the estimates for the main specification. As can be seen in the first column, a higher crude divorce rate in an immigrant's country of origin is associated with an increase in the probability that that immigrant is divorced. In column 2, age, gender, and education are added to the specification, and the inclusion of these variables has no effect on our parameter of interest—the estimated effect of the country of origin CDR. Studies have found that older individuals are less likely to *become* divorced conditional on being married (Peters 1986), but our results indicate that older individuals are more likely to *be* divorced. This is presumably because they

have had more time to end a marriage. Men are less likely to be divorced because they are more likely to get remarried. 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; Peters 1986; Isen and Stevenson 2010). In the third column, MSA fixed effects are added to the model. 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 as the cultural proxy may be capturing the effect of US divorce laws and institutions, rather than the effect of culture. The estimated coefficient on the divorce cultural proxy decreases by almost 24% after including MSA fixed effects in the specification, suggesting that immigrants from high divorce rate countries are indeed more likely to reside in high divorce US cities.

Overall, our estimates indicate that when the number of divorces per thousand in an immigrant's home country increases by one, there is almost a three percentage point increase in the probability that an immigrant gets a divorce (column 3 in Table 2). In other words, immigrants from Russia, the country with the highest CDR of 4.28, are about 10 percentage points more likely to be divorced than immigrants from Italy (CDR of 0.65) - the lowest among the countries considered. Since divorced Russians are more likely to remarry than divorced Italians, we might expect home country divorce rates to have an even stronger impact on the probability of ever having been divorced.

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 since they are the largest immigrant group and may be driving the results. In another specification, we drop Russia (the country with the highest CDR) and Italy (the country with the lowest CDR). As can be seen in Panels A and B of Table 3, in both of these specification checks, the estimated

crude divorce rate coefficients remain within about half a percentage point of our baseline estimate and are both statistically significant.

A country's crude divorce rate is not the only possible measure of home country attitudes toward divorce. We also examine a more direct measure of attitudes about divorce: the percentage of the country's population believing that divorce is never justifiable.<sup>6</sup> There is generally a negative relationship between crude 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.<sup>7</sup> As seen in Panel C of Table 3, this measure of divorce culture also has a significant impact on divorce rates of immigrants residing in the US. A ten percentage point increase in the proportion of individuals believing that divorce is never justifiable results in a 0.2 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 crude divorce rate remains our preferred measure of culture, but it is comforting that the results are not sensitive to our choice of cultural proxy.

## 4.2 Cross-Ancestry Differences in Divorce Rates and Unobserved Heterogeneity

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<sup>&</sup>lt;sup>6</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 (1 Never justifiable, ..., 10 Always Justifiable). Data is available for four waves 1981-1984, 1989-1993, 1995-1998, and 1999-2004. We pool all of the waves together since there is no wave in which all countries considered are available. We have also run further tests using just wave 2 (1989-93), which includes information for all countries considered except Greece, and wave 4 (1999-2004) which includes information for all countries except Switzerland and Norway. Results were robust.

<sup>&</sup>lt;sup>7</sup> This may explain the relatively high proportion of Spanish divorcees in the US.

A potential concern with our analysis is that even young arriving immigrants from the same country may have characteristics in common which affect divorce tendencies. If 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. To determine whether omitted variables are likely to severely bias our results, we start by adding several home country aggregate variables to our baseline model, reproduced in Column 1 of Table 4 for convenience.<sup>8</sup>

The relationship between household income and divorce is theoretically ambiguous. Since 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 since 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). 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 tens of thousands of US dollars, as a proxy for

<sup>&</sup>lt;sup>8</sup> See Appendix C for a description of the data sources and Appendix B for summary statistics on these variables.

household income. As can be seen in Column 2 of Table 4, there is no change in the estimated CDR coefficient when this variable is added to the model.

Another empirical regularity in the divorce literature is that couples with children are less likely to divorce (Becker et al. 1977; and Peters 1986). This may be either because the financial, and especially, emotional costs of divorce are higher when children are involved, or because couples only have children when they envision good long-term prospects for a marriage. If fertility is correlated within ethnicity in the US 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 only contains information on the number of children living in the household, a very poor measure of fertility, especially for divorced males and older couples. We also note that it is unclear whether we should control for fertility given that people in ethnic groups with stronger divorce taboos may be more likely to have children as a result of their beliefs that their marriages are unlikely to end in divorce. If children have an additional protective effect on marriages, then they can be considered a mechanism through which divorce taboos decrease divorce rates. Nevertheless, to explore the relationship between children and divorce taboos, we use country of origin fertility rates as a proxy for fertility. As can be seen in column 3, when this variable is added to the baseline model, the estimated coefficient on origin country divorce rates remains approximately the same.

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

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<sup>&</sup>lt;sup>9</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.

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 role of religiosity in transmitting divorce culture, we add to our baseline model a country of origin level variable measuring the percentage of the home country population which attends religious services weekly. Again, it is difficult to interpret results from a regression that includes a measure of religiosity. If the estimated coefficient on home country crude divorce rate is smaller in models that include home country religiosity, this may simply suggest that norms about divorce get 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. 10 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 towards divorce and also happen to be less religious. However, results, shown in column 4, suggest that these distinctions are not empirically important for our purposes. Although religiosity has a negative and statistically significant effect on the probability of divorce, the CDR coefficient decreases only slightly and remains positive and statistically significant after

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<sup>&</sup>lt;sup>10</sup> The evidence of the effect of religiosity on divorce is mixed. Lehrer and Chiswick (1993) find that more religious individuals have a lower probability of divorce, but Trent and South (1989) fail to find any significant effect of religion on divorce probabilities.

controlling for religiosity.<sup>11</sup> We also add percent catholic in home country to the model in Column 5. This variable has no statistically significant effect on the probability of divorce, and our coefficient of interest is insensitive to its inclusion in the model.

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, and they may lack the social support necessary to work out their differences (Kalmijn et al. 2004). Cross-ancestry 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 same-ethnicity spouses. <sup>12</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 US 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 US at or before the age of five using US Census 2000 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 suggest that ethnic groups with higher endogamy rates are less likely to divorce. However, adding this variable to the specification does not significantly change the coefficient associated with divorce culture.

<sup>&</sup>lt;sup>11</sup> Religiosity measures are not available for Norway and Switzerland in the WVS. We have re-run our baseline regressions without observations from these countries and results hold.

<sup>&</sup>lt;sup>12</sup> For details on the determinants of intermarriage for first and second generation immigrants, see Furtado and Theodoropoulos (2010) and Chiswick and Houseworth (2008).

Finally, individuals who marry at a young age may lack the maturity necessary to choose optimal spouses, and this may lead to higher divorce rates. Becker (1977) suggests that one reason that young marriages are more likely to end in divorce is that they follow a shorter spouse search period. In column 7, country of origin average age at marriage is added to the baseline specification. Again, adding this variable to the regression has no impact on our measure of divorce culture. Column 8 shows regression results from a specification that includes all of these country of origin variables. The full model is suggestive of an even stronger impact of culture on divorce than the baseline model.

## 4.3 Divorce Culture and Marriage

For further evidence that our estimates are not simply picking up cross-ancestry heterogeneity in some unobserved variable, we examine the relationship between home country divorce rates and marriage tendencies. If there were some unobserved characteristic correlated with home country divorce rates but independent of divorce norms, we might expect it to also affect marriage rates. As can be seen in column 1 of Table 5, home country divorce rates have no statistically significant impact on the probability of never having been married.<sup>13</sup>

This is a particularly strong test since we might expect divorce taboos to affect marriage rates as well as divorce rates. Theoretically, strong anti-divorce norms might make spouse searchers more cautious about whom they choose to marry. Empirically however, we find evidence that divorce culture has a much stronger impact on the probability of exiting a marriage than on the

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<sup>&</sup>lt;sup>13</sup> Unobserved human capital may also be correlated with home country divorce rates and affect divorce probabilities independently of divorce culture. To examine this issue, we ran similar regressions with log wage, a measure of unobserved human capital, as the dependent variable. For the whole sample as well as for males and females separately, home country divorce rates had statistically insignificant impacts on the probability of being divorced.

probability of entering a bad marriage. First, if home country divorce rates largely affect the probability of entering a marriage at a young age (which tends to result in higher divorce rates), we might expect a much weaker relationship between home country divorce rates and divorce probabilities for a sample of older individuals, who are very likely to be married regardless of country of origin. In column 2 of Table 5, we run our baseline model on a sample of people over the age of 30. The coefficient on crude divorce rates estimated using this older sample remains positive, statistically significant, and roughly the same magnitude, suggesting that differential divorce tendencies are not being driven by differential marriage patterns.

Next, we consider the effect of a measure of home country divorce rates which more accurately reflects divorce tendencies conditional on marriage. A country may have a high crude divorce rate, defined as the number of divorces per 1000 inhabitants in a particular year, either because the marriage rate is very high or because marriages are more likely to end in divorce. Even if unions in countries with relatively high cohabitation and low marriage rates were just as likely to dissolve as unions in countries with low cohabitation rates, the crude divorce rate would be higher in countries with more marriages. Moreover, a large proportion of a country's population that is married may be a signal that marriage market participants do not search as intensively for optimal matches. If there is more social pressure to marry young and couples have shorter courting periods, for example, then tendencies to enter suboptimal marriages may increase. Thus, even if conditional on marriage quality, there were no cross-country differences

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<sup>&</sup>lt;sup>14</sup> In practice, countries where marriages are more likely to end in divorce have higher cohabitation rates and lower marriage rates (Sevilla-Sanz 2010). However, we might argue that if marriage market participants in these countries married at the same rates as in countries with low divorce and cohabitation rates, then divorce rates would be even higher.

in the probability of divorce, countries with high marriage rates may have higher crude divorce rates.

To examine whether home country crude divorce rates reflect differential marriage or divorce tendencies, we substitute the country of origin crude divorce rate with the country's total divorce rate, defined as the number of divorces per 1000 married inhabitants. Column 3 of Table 5 presents coefficient estimates on the total divorce rate. Results indicate that, just like crude divorce rates, home country total divorce rates have a positive and statistically significant effect on divorce probabilities. It is also interesting to note that the estimated coefficient on the TDR is about half the size of that associated with the CDR. Given that the only thing that differs between a TDR and a CDR is the denominator, we can express CDR as a function of TDR: the CDR is equal to the TDR multiplied by the country's marriage rate (proportion of the population which is married). Given that we have CDRs and TDRs for all of the countries in our sample, we can back out an average marriage rate of .54 (author's calculations). This implies that if the only driver of divorces were the TDR (which can be viewed as a measure of the probability of getting divorced conditional on marriage), then the coefficient on CDR would be 1.86 times the size of the coefficient on TDR. Since our estimated CDR coefficient is double our estimated TDR coefficient, we can conclude that it is mostly divorce tendencies, as opposed to marriage tendencies, that are driving our results.

# **5** Gender and Culture

There are some potentially important control variables available in the 2000 Census, which we do not include in the baseline model because of endogeneity concerns. Separating the sample by gender allows us to extend the list of controls to include wages and whether there is a young child in the household. Higher incomes of husbands are associated with smaller likelihoods of

divorce while, 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 discussed previously, if average wage income differs by country of origin in a way that is correlated with home country divorce rates, then 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, since most men work regardless of marital status, we do not expect this variable to result in biased estimated coefficients in an all-male sample.

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

<sup>&</sup>lt;sup>15</sup> Although we partially addressed this issue with the specification controlling for GDP in the previous section, we are concerned that immigrants from a country are not a random sample of the home country population. Given the predictions of a simple Roy model of migration, this is especially true when it comes to income levels. If there is sufficient intergenerational transmission of skill from parents to children or if parents make migration decisions based on the anticipated future incomes of their young children, then home country GDPs may not adequately control for household income in our sample of childhood immigrant arrivers.

Table 6 presents results separately for men and women. The first and fourth columns suggest that women are more heavily influenced by culture than men. In the full specifications, shown in the second and fifth columns, both of the of the home country divorce rate coefficients are smaller than in the baseline specifications, but women are about 70 percent more sensitive to home country divorce rates than men. This may not be surprising given the findings in the divorce literature that wives are generally more perceptive of marital problems than husbands and play a larger role in relationship maintenance (Heaton and Blake 1999). Since women are more likely to instigate divorce (Brinig and Allen 2000; Kalmijn and Poortman 2006), then it is their real or perceived costs of divorce that ultimately determine whether a marriage dissolves. 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 will be more sensitive to any divorce stigma than men. The differential effect can be interpreted in light of identity models (e.g., Akerlof and Kranton 2000), whereby women loose 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 and Uunk 2007).

When wages are added to the male specification in column 3 of Table 6, the estimated culture coefficient decreases slightly but remains positive and statistically significant.<sup>16</sup> Consistent with the literature, an increase in a male's wages results in decreases in the

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<sup>&</sup>lt;sup>16</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 impact divorce tendencies, home country divorce rates remain significant predictors of divorce probabilities even in specifications which control for wages.

probability that he is divorced. Children also have a stabilizing effect on marriages (Waite and Lillard 1991). As can be seen in column 6 of Table 6, the presence of a child in the household decreases the probability that a woman is divorced by about ten percentage points. When this variable 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.

Mindful of the potential bias that may result, we also add female wages to the model in column 7. 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 culture does not operate solely via changes in fertility or wages within families.

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

Up until this point, we have considered whether culture is an important determinant of divorce. 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 which gets 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; and Gruber 2004). It is also possible that home country divorce culture has no impact 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, then we might interpret a stronger 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 Fernandez and Fogli (2009), local communities can preserve culture by either providing role models for acceptable family arrangements or by punishing behavior which is different from the norm. Indeed, McDermott et al. (2009) find that divorce spreads across friends, siblings, and co-workers. 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 (Glenn and Shelton 1985; Breault and Kposowa 1987).

To identify the role of network effects in the probability of divorce, we use an empirical strategy similar to that in Bertrand et al.'s (2000) work on network effects and welfare cultures. Since European divorce rates are lower than US divorce rates (see Table 1), if culture is transmitted within local communities, then we might expect that immigrants living in predominantly ethnic areas will be less likely to divorce than immigrants living amidst Americans. Moreover, the effect of ethnic concentration should be particularly strong for immigrants in ethnic groups with especially low divorce rates. To formalize this idea, consider the following equation,

$$D_{ijk} = \alpha_1 P_{jk} + \alpha_2 P_{jk} * DR_j + \mathbf{X}_{ijk} \alpha_3 + \delta_j + \gamma_k + e_{ijk} \,,$$

where the proportion of individuals in the immigrant's metropolitan area from the same country of origin is denoted  $P_{jk}$ ,  $\delta_j$  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 crude divorce rate used in our original specification, but the fixed effects will also control for unobserved country of origin variables, as well as person-specific determinants of divorce that happen to be correlated within ancestry including whether a person's parents are divorced.

Our variable of interest is the interaction between ethnic concentration and the home country crude divorce rate. As discussed above, 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, since the crude divorce rate in Russia is higher than the crude 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 the Russians that immigrate to the US, probably a non-random 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 7 presents regression results. As can be seen in the first column, ethnic concentration has a negative but insignificant effect on divorce rates. When the home country's crude divorce rate is added in the second column, the concentration coefficient remains insignificant although the CDR has the expected positive sign. In the third column, the interaction between origin country CDR 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 and highly significant.

As we are identifying the role of culture off of variation in the *interaction* between ethnic concentration and home country CDR in this model, we can replace home country CDR with home country dummy variables. As can be seen in column 4, our coefficient of interest increases slightly and remains highly significant, again confirming that an increase in the concentration of immigrants leads to a larger decrease in the probability of being divorced for immigrants from countries with relatively low crude divorce rates. A ten percentage point increase in the concentration of co-ethnics leads to a 3.6 percentage point decrease in the probability of being divorced for Italians since the crude divorce rate in Italy is 0.65, but only a half percentage point decrease in the probability that a German is divorced since the German CDR is 2.37. In fact, the same ten percentage point increase in the concentration of Russians results in a 2.8 percentage point *increase* in the probability of divorce for Russians since the Russian crude divorce rate is 4.28.

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 of the individual characteristics that are correlated with home country divorce rates 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 full proof method of identifying divorce culture since immigrants that choose to reside amidst co-ethnics may have preferences and constraints which are 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.

### 7 Conclusion

This paper aims to rigorously disentangle the effects of markets and institutions from the effects of culture in determining divorce decisions. Because immigrants that arrived in the US as young children absorb home country culture from their parents and ethnic communities but are exposed to US 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 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 (Böheim 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 been available. Attitudes about divorce may impact divorce rates through marriage, birth timing, and cohabitation decisions and so 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 (Poppel and de Beer 1993; Smith 1997; and Allen 1998). 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.

#### 8 References

- Akerlof, George A., and Rachel E. Kranton (2000). "Economics and Identity." *Quarterly Journal of Economics*, 115(3), 715-753.
- Allen, Douglas W. (1998). "No-Fault Divorce in Canada: Its Cause and Effect." *Journal of Economic Behavior and Organization*, 37(2), 129-149.
- Almond, Douglas Jr, Lena Edlund and Kevin Milligan (2009). "Son Preference and the Persistence of Culture: Evidence from Asian Immigrants to Canada." NBER Working Paper No. 15391.
- Amato, Paul R. (1996). "Explaining the Intergenerational Transmission of Divorce." *Journal of Marriage* and the Family, 58(3), 628-640.
- Antecol, Heather (2000). "An Examination of Cross-Country Differences in the Gender Gap in Labor Force Participation rates." *Labour Economics*, 7(4), 409-426.
- Bahr, Howard M., and Bruce A. Chadwick (1985). "Religion and Family in Middletown, USA." *Journal of Marriage and the Family*, 47(2), 407-414.
- Becker, Gary S., Elisabeth M. Landes, and Robert T. Michael (1977). "An Economic Analysis of Marital Instability." *Journal of Political Economy*, 85(6), 1141-1187.

- Bertrand, Marrianne, Erzo F. P. Luttmer and Senhil Mullainathan (2000). "Network Effects and Welfare Culutres." *Quarterly Journal of Economics*, 115(3), 1019-1055.
- Bisin, Alberto, Giorgio Topa and Thierry Verdier (2004). "Religious Intermarriage and Socialization in the United States." *Journal of Political Economy*, 112(3), 615-664.
- Bisin, Alberto and Thierry Verdier (2000). "Beyond the Melting Pot: Cultural Transmission, Marriage, and the Evolution of Ethnic and Religious Traits." *Quarterly Journal of Economics*, 115(3), 955-988.
- Boheim, Rene and John Ermisch (2001). "Partnership Dissolution in the UK: the Role of Economic Circumstances." Oxford Bulletin of Economics and Statistics, 63(2), 197-208.
- Borjas, George J. (2005). "The Labor-Market Impact of High-Skill Immigration." *The American Economic Review*, 95(2), 56-60.
- Breault, Kevin D., and Augustine J. Kposowa (1987). "Explaining Divorce in the United States: A Study of 3,111 Counties in 1980." *Journal of Marriage and the Family*, 49(3), 549-558.
- Brinig, Margaret F., and Douglas W. Allen (2000). "These Boots are Made for Walking': Why Most Divorce Filers are Women." *American Law and Economics Review* 2(1), 126-169.
- Brügger, Beatrix, Raphael Lalive and Josef Zweimüller (2009). "Does Culture Affect Unemployment? Evidence from Röstigraben." IZA Discussion Papers 4283, Institute for the Study of Labor (IZA).
- Burgess, Simon, Carol Propper and Arnstein Aassve (2003). "The Role of Income in Marriage and Divorce Transitions Among Young Americans." *Journal of Population Economics*, 16(3), 455-475.
- Carroll, Christopher D., Byung-Kun Rhee and Changyong Rhee (1994). "Are There Cultural Effects on Saving? Some Cross-Sectional Evidence." *Quarterly Journal of Economics*, 109(3), 685-699.
- Chiswick Barry R. and Christina A.Houseworth (2008) "Ethnic Intermarriage among Immigrants: Human Capital and Assortative Mating" IZA Discussion Papers 3740, Institute for the Study of Labor (IZA).
- Chong, Alberto, and Eliana La Ferrara (2009). "Television and Divorce: Evidence From Brazillian Novelas." *Journal of the European Economic Association*, 7(2–3), 458–468
- Dickert-Conlin, Stacy (1999). "Taxes and Transfers: Their Effects on the Decision to End a Marriage." *Journal of Public Economics*, 73(2), 217–240.
- Fernández, Raquel (2007). "Women, Work, and Culture." *Journal of the European Economic Association*, 5(2-3), 305-332.
- Fernández, Raquel, and Alessandra Fogli (2005). "Culture: An Empirical Investigation of Beliefs, Work, and Fertility." NBER Working Paper No. 11268.
- Fernández, Raquel. and Alessandra Fogli (2006). "Fertility: The Role of Culture and Family Experience." Journal of the European Economic Association, 4(2-3), 552-561.

- Fernández, Raquel. and Alessandra Fogli (2009). "Culture: An Empirical Investigation of Beliefs, Work, and Fertility." *American Economic Journal: Macroeconomics*, American Economic Association, 1(1), 146-177.
- Friedberg, Leora (1998). "Did Unilateral Divorce Raise Divorce Rates? Evidence from Panel Data." *American Economic Review*, 88(3), 608–627.
- Furtado, Delia and Nikolaos Theodoropoulos (2010) "Interethnic Marriage: a Choice between Ethnic and Educational Similarities" *Journal of Population Economics*, DOI: 10.1007/s00148-010-0319-7.
- Giuliano, Paola (2007). "Living Arrangements in Western Europe: Does Cultural Origin Matter?" *Journal of the European Economic Association*, 5(5), 927-952.
- Glenn, Norval D., and Beth Ann Shelton (1985). "Regional Differences in Divorce in the United States." *Journal of Marriage and the Family*, 47(3), 641-652.
- González, Libertad, and Tarja K. Viitanen (2009). "The Effect of Divorce Laws on Divorce Rates in Europe." *European Economic Review*, 53(2), 127–138.
- Gray, Jeffrey S. (1998). "Divorce-Law Changes, Household Bargaining, and Married Women's Labor Supply." *American Economic Review*, 88(3), 628–642.
- Gruber, Jonathan (2004). "Is Making Divorce Easier Bad for Children? The Long-Run Implications of Unilateral Divorce." *Journal of Labor Economics*, 22(4), 799–833.
- Guiso, Luigi, Paola Sapienza and Luigi Zingales (2006). "Does Culture Affect Economic Outcomes?" *Journal of Economic Perspectives*, 20(2), 23-48.
- Halla, Martin (2009). "The Effect of Joint Custody on Marriage and Divorce," IZA Discussion Papers 4314, Institute for the Study of Labor (IZA).
- Heaton, Tim B., and Ashley M. Blake (1999). "Gender Differences in Determinants of Marital Disruption." *Journal of Family Issues*, 20(1), 25-45.
- Heim, Bradley T. (2003). Does Child Support Enforcement Reduce Divorce Rates? A Reexamination." *Journal of Human Resources*, 38 (4) 773-791.
- Isen, Adam, and Betsey Stevenson (2010). "Women's Education and Family Behavior: Trends in Marriage, Divorce and Fertility." NBER Working Paper No. 15725.
- Jalovaara, Marika (2003). "The Joint Effects of Marriage Partners' Socioeconomic Positions on the Risk of Divorce." *Demography*, 40(1), 67-81.
- Jensen, Peter and Nina Smith (1990). "Unemployment and Marital Dissolution." *Journal of Population Economics*, 3(3), 215-229.
- Johnson, William R., and Jonathan Skinner (1986). "Labor Supply and Marital Separation." *American Economic Review* 76(3), 455-469.
- Kalmijn, Matthijs (1993). "Spouse Selection Among the Children of European Immigrants: A Comparison of Marriage Cohorts in the 1960 Census." *International Migration Review*, 27(1),

- Kalmijn, Matthijs (2009). "Country Differences in the Effects of Divorce on Well-being: The Role of Norms, Support, and Selectivity." *European Sociological Review*, doi:10.1093/esr/jcp035.
- Kalmijn, Matthijs, Paul M. De Graaf and Anne-Rigt Poortman (2004). "Interactions Between Cultural and Economic Determinants of Divorce in The Netherlands." *Journal of Marriage and Family*, 66(1), 75-89.
- Kalmijn, Matthijs, and Anne-Rigt Poortman (2006). "His or Her Divorce: The Gendered Nature of Divorce and its Determinants." *European Sociological Review*, 22(2), 201-214.
- Kalmijn, Matthijs, and Wilfred Uunk (2007). "Regional Value Differences in Europe and the Social Consequences of Divorce: A Test of the Stigmatization Hypothesis." *Social Science Research*, 36(2), 447-468.
- Lehrer, Evelyn L., and Carmel U. Chiswick (1993). "Religion as a Determinant of Marital Stability." *Demography*, 30(3), 385-404.
- Lillard, Lee A., Michael J. Brien and Linda J. Waite (1995). "Premarital Cohabitation and Subsequent Marital Dissolution: A Matter of Self-Selection?" *Demography*, 32(3), 437-457.
- McDermott, Rose, Nicholas A. Christakis, and James H. Fowler (2009). "Breaking Up is Hard to Do, Unless Everyone Else is Doing it Too: Social Network Effects on Divorce in a Longitudinal Sample Followed for 32 Years." Available at SSRN: http://ssrn.com/abstract=1490708.
- Nixon, Lucia A. (1997). "The Effect of Child Support Enforcement on Marital Dissolution." *Journal of Human Resources*, 32(1) 159-181.
- Peters, Elizabeth H. (1986). "Marriage and Divorce: Informational Constraints and Private Contracting." *American Economic Review*, 76(3), 437-454.
- van Poppel, Frans, and Joop de Beer (1993). "Measuring the Effect of Changing Legislation on the Frequency of Divorce: The Netherlands, 1830-1990." *Demography*, 30(3), 425–441.
- Sevilla-Sanz, Almudena (2010). "Division of Household Labor and Cross-Country Differences in Household Formation Rates." *Journal of Population Economics*, 23(1), 225-249.
- Smith, Ian (1997). "Explaining the Growth of Divorce in Great Britain." *Scottish Journal of Political Economy*, 44(5) 519–543.
- Svarer, Michael and Mette Verner (2008). "Do Children Stabilize Relationships in Denmark?" *Journal of Population Economics*, 21(2), 395–417.
- Tjøtta, Sigve, and Kjell Vaage (2008). "Public Transfers and Marital Dissolution." *Journal of Population Economics*, 21(2), 419–437.
- Trent, Katherine, and Scott J. South (1989). "Structural Determinants of the Divorce Rate: A Cross-Societal Analysis." *Journal of Marriage and the Family*, 51(2), 391-404.

- Waite, Linda J., and Lee A. Lillard (1991). "Children and Marital Disruption." *American Journal of Sociology*, 96(4), 930-953.
- Weiss, Yoram, and Robert J. Willis (1997), "Match Quality, New Information, and Marital Dissolution." *Journal of Labor Economics*, 15(l), S293-S329.
- White, Lynn K. (1990). "Determinants of Divorce: A Review of Research in the Eighties." *Journal of Marriage and the Family*, 52(4), 904-912.
- Wolfers, Justin (2006). "Did Unilateral Divorce Laws Raise Divorce Rates? A Reconciliation and New Results." *American Economic Review*, 96(5), 1802-1820.

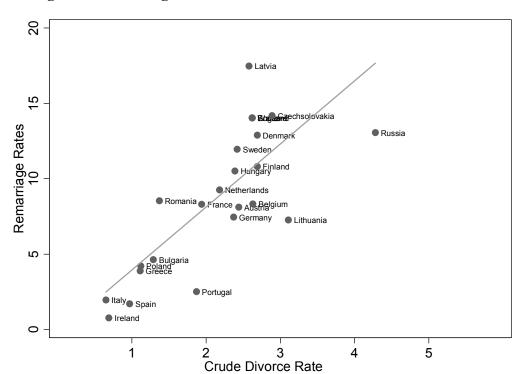


Figure 1 Remarriage Rates and Crude Divorce Rates

Notes: Crude divorce rates, defined as the number of divorces per 1,000 inhabitants, for the year 2000 were obtained from the UN Demographic Yearbook. Remarriage rates, the number of people that are currently married divided by the number of people that have ever been divorced, were calculated by the authors using data from the World Values Survey for the years 1999 to 2004.

Table 1: Descriptive Statistics by Country of Origin

Country	Crude Divorce Rate	Divorced	Age	Male	High School	Some College	Bachelors Degree +	At least one child (female)	Log wage (male)	Log wage (female)	Obs.
Russia	4.28	0.14	46.33	0.48	0.23	0.22	0.48	0.37	10.64	9.81	137
Lithuania	3.11	0.29	59.02	0.58	0.17	0.23	0.48	0.31	6.6	10.46	29
Czechoslovakia	2.89	0.17	54.2	0.53	0.23	0.27	0.46	0.35	10.95	10	83
Finland	2.69	0.16	53.38	0.56	0.14	0.41	0.45	0.35	10.76	10.54	40
Denmark	2.69	0.14	51.58	9.0	0.25	0.33	0.4	0.54	10.8	9.83	92
Belgium	2.63	0.14	50.64	0.46	0.25	0.2	0.46	0.35	10.97	9.91	53
United Kingdom	2.62	0.18	46.49	0.49	0.25	0.39	0.31	0.55	10.61	9.97	2088
Latvia	2.58	0.24	56.53	0.47	0.14	0.49	0.37	0.25	10.9	10.99	20
Austria	2.44	0.18	54.67	0.52	0.19	0.3	0.48	0.28	10.82	9.92	172
Sweden	2.42	0.19	58.25	0.56	0.31	0.32	0.32	0.3	10.22	9.61	76
Hungary	2.39	0.22	53.62	0.5	0.24	0.27	0.44	0.48	10.67	98.6	177
Germany	2.37	0.18	43.55	0.49	0.26	0.38	0.33	0.61	10.63	9.92	4267
Norway	2.24	0.18	55.72	0.57	0.25	0.3	0.41	0.35	10.67	10.02	117
Netherlands	2.18	0.11	49.52	0.54	0.28	0.35	0.31	0.55	10.81	10.12	419
France	1.94	0.17	44.71	0.48	0.24	0.32	0.41	0.59	10.64	9.95	364
Portugal	1.87	0.13	37.16	0.46	0.39	0.28	0.14	0.72	10.53	88.6	621
Switzerland	1.46	0.12	53.34	0.56	0.19	0.25	0.48	0.56	10.83	6.6	70
Romania	1.37	0.12	46.34	0.5	0.34	0.36	0.27	0.5	10.51	9.54	62
Bulgaria	1.29	0.03	52.18	0.81	0.41	0.08	0.52	1	11.17	10.13	10
Poland	1.12	0.09	49.79	0.5	0.32	0.29	0.31	0.57	10.69	10.1	427
Greece	1.11	0.11	43.41	0.52	0.24	0.3	0.38	89.0	10.64	98.6	376
Spain	0.97	0.15	38.7	0.48	0.26	0.3	0.38	0.53	10.47	10.38	46
Ireland	69.0	0.11	51.34	0.49	0.3	0.32	0.34	0.52	10.64	10	295
Italy	0.65	0.11	51.64	0.52	0.38	0.26	0.23	0.58	10.65	68.6	2023
Average	1.97	0.15	46.61	0.5	0.29	0.34	0.31	0.57	10.64	9.94	
Std. Dev.	0.78	0.36	15.13	0.5	0.45	0.47	0.46	0.49	98.0	1.02	
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Notes: Countries of origin are ordered by crude divorce rate (CDR), defined as the number of divorces per 1,000 inhabitants. This information was obtained from the UN Demographic Yearbook. For reference, the US crude divorce rate in the year 2000 was 4.1 (National Center for Health Statistics (NCHS)). The other descriptive statistics in the table were constructed using our sample of childhood migrants taken from the 5% microdata sample taken from the 2000 U.S. Census. The sample consists of immigrants who arrived in the US at or below the age of 5, who report an ancestry that corresponds to the country in which they were born, reside in an identifiable metropolitan area, and who are either married or divorced.

Table 2: Divorce Culture and the Probability of Being Currently Divorced

Dependent Variable: Divorced	(1)	(2)	(3)
			_
Crude Divorce Rate	0.037***	0.038***	0.029***
	(0.006)	(0.004)	(0.004)
Age		0.013***	0.014***
		(0.002)	(0.002)
Age squared/100		-0.013***	-0.013***
		(0.002)	(0.002)
Male		-0.033***	-0.036***
		(0.006)	(0.007)
High School Graduate or GED		-0.046***	-0.056***
		(0.014)	(0.016)
Some College		-0.038*	-0.053**
		(0.022)	(0.021)
Bachelors Degree +		-0.084***	-0.094***
		(0.024)	(0.023)
Constant	0.080***	-0.165***	0.159
	(0.010)	(0.040)	(0.305)
MSA Fixed Effects	No	No	Yes
Observations	12069	12069	12069
R-squared	0.006	0.021	0.059

Notes: The crude divorce rate is the number of divorces per 1,000 inhabitants in the country of origin. This information was obtained from the UN Demographic Yearbook. The sample, obtained from the 5% microdata sample from the 2000 U.S. Census, consists of immigrants who arrived to the US at or below the age of 5, who report an ancestry that corresponds to the country in which they were born, reside in an identifiable metropolitan area, and who are either married or divorced. Standard errors, clustered by country of origin, are in parenthesis. \*\*\* Significant at the 1% level, \*\* Significant at the 5% level, \* Significant at the 10% level.

**Table 3: Robustness Checks** 

Dependent Variable: Divorced	
Panel A: Estimates without Germany	
Crude Divorce Rate	0.024***
	(0.004)
Observations	7802
R-squared	0.077
Panel B: Estimates without Russia (the country with the highest CDR) and Ita	aly (the country with the lowest CDR)
Crude Divorce Rate	0.036***
	(0.005)
Observations	9909
R-squared	0.062
Panel C: Divorce Culture and the Probability of Being Currently Divorced us	ing an Alternative Cultural Proxy
% Reporting Divorce Never Justifiable	-0.002**
	(0.001)
Observations	12069
R-squared	0.057

Notes: The crude divorce rate is the number of divorces per 1,000 inhabitants in the country of origin from the UN Demographic Yearbook. The percentage reporting that divorce is never justifiable comes from the World Value Surveys data set. The sample, obtained from the 5% microdata sample from the 2000 U.S. Census, consists of immigrants who arrived to the US at or below the age of 5, who report an ancestry that corresponds to the country in which they were born, reside in an identifiable metropolitan area, and who are either married or divorced. Standard errors, clustered by country of origin, are in parenthesis. \*\*\* Significant at the 1% level, \*\* Significant at the 5% level, \* Significant at the 10% level.

Table 4: Cross-Ancestry Differences and the Probability of Being Currently Divorced	robability of Being	Currently Divor	peo					
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)
Dependent variable:	Divorced	Divorced	Divorced	Divorced	Divorced	Divorced	Divorced	Divorced
Crude Divorce Rate	0.029***	0.029***	0.030***	0.026***	0.031***	0.027***	0.028***	0.036***
	(0.004)	(0.004)	(0.004)	(0.003)	(0.005)	(0.004)	(0.004)	(0.007)
Age	0.014**	0.014***	0.014***	0.013***	0.014***	0.013***	0.014**	0.013***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Age squared/100	-0.013***	-0.013***	-0.013***	-0.013***	-0.013***	-0.013***	-0.013***	-0.013***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Male	-0.036***	-0.036***	-0.036***	-0.036***	-0.036***	-0.036***	-0.036***	-0.036***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.001)	(0.001)
High School Graduate or GED	-0.056***	-0.056***	-0.056***	-0.052***	-0.056***	-0.056***	-0.056***	-0.053***
	(0.016)	(0.016)	(0.016)	(0.015)	(0.016)	(0.016)	(0.016)	(0.015)
Some College	-0.053**	-0.053**	-0.053**	-0.050**	-0.053**	-0.053**	-0.053**	-0.051**
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)
Bachelors Degree +	-0.094***	-0.094***	-0.094**	***060'0-	-0.093***	-0.094***	-0.094***	-0.091***
	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)
Country of Origin GDP		-0.002						-0.062***
		(0.006)						(0.015)
Country of Origin Total Fertility Rate			-0.033					-0.050
			(0.028)	3				(0.035)
Country of Origin Percent weekly				÷0.001				0.001
Church Attendance				(0.000)	1000			(0.001)
Country of Origin Percent Catholics					0.0001			0.0001)
Country of Origin Ethnic Endogamy Rate					(0.0001)	-0.057*		-0.321***
						(0.030)		(0.067)
Country of Origin Average Female							-0.001	0.015**
Age at First Marriage							(0.003)	(0.007)
Constant	0.159	0.162	0.205	0.172	0.150	0.173	0.178	-0.063
	(0.305)	(0.303)	(0.291)	(0.308)	(0.304)	(0.305)	(0.277)	(0.249)
MSA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	12069	12069	12069	11882	12069	12069	12069	11882
R-squared	0.059	0.059	0.059	0.059	0.059	0.059	0.059	090.0

obtained from the 5% microdata sample of the 2000 U.S. Census, consists of immigrants who arrived to the US at or below the age of 5, who report an ancestry that corresponds to the country in which they were born, reside in an identifiable metropolitan area, and who are either married or divorced. Standard errors, clustered by country of origin, are in parenthesis. \*\*\* Significant at the 5% level, \*\* Significant at the 10% level, bescriptive statistics for the country of origin level control variables are available in Appendix B. Notes: The crude divorce rate is the number of divorces per 1,000 inhabitants in the country of origin. This information was obtained from the UN Demographic Yearbook. The sample,

**Table 5: Divorce Culture and Marriage Rates** 

	(1)	(2)	(3)
Dependent variable	Never married	Divorced	Divorced
	All	Married or divorced	Married or divorced
Sample	All	individuals over age 30	individuals
Crude Divorce Rate	-0.003	0.033***	
	(0.008)	(0.005)	
Total Divorce Rate			0.015***
			(0.002)
Age	-0.036***	0.013***	0.013***
	(0.002)	(0.002)	(0.002)
Age squared/100	0.025***	-0.013***	-0.013***
	(0.002)	(0.002)	(0.002)
Male	0.036***	-0.037***	-0.036***
	(0.006)	(0.008)	(0.007)
High School Graduate or	-0.039*	-0.050***	-0.056***
GED	(0.021)	(0.015)	(0.016)
Some College	-0.038	-0.046**	-0.053**
	(0.027)	(0.018)	(0.021)
Bachelors Degree +	-0.024	-0.087***	-0.094***
	(0.030)	(0.022)	(0.023)
Constant	1.212***	0.233	0.164
	(0.071)	(0.316)	(0.305)
MSA Fixed Effects	Yes	Yes	Yes
Observations	23277	10906	12069
R-squared	0.618	0.062	0.059

Notes: The crude divorce rate is the number of divorces per 1,000 inhabitants in the country of origin. This information was obtained from the UN Demographic Yearbook. The sample, obtained from the 5% microdata sample of the 2000 U.S. Census, consists of immigrants who arrived to the US at or below the age of 5, who report an ancestry that corresponds to the country in which they were born, reside in an identifiable metropolitan area, and who are either married or divorced. Standard errors, clustered by country of origin, are in parenthesis. \*\*\* Significant at the 1% level, \*\* Significant at the 10% level.

Table 6: Divorce Culture and the Probability of Being Currently Divorced by Gender

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Men			Wo	men	
Crude divorce rate	0.029***	0.020***	0.018***	0.045***	0.039***	0.034***	0.032***
	(0.004)	(0.003)	(0.004)	(0.008)	(0.009)	(0.009)	(0.011)
Age		0.012***	0.021***		0.015***	0.016***	0.023***
		(0.002)	(0.003)		(0.003)	(0.003)	(0.004)
Age Squared/100		-0.013***	-0.022***		-0.013***	-0.016***	-0.023***
		(0.002)	(0.003)		(0.003)	(0.003)	(0.004)
High School Graduate or GED		-0.015	0.013		-0.087***	-0.090***	-0.151***
		(0.016)	(0.018)		(0.023)	(0.024)	(0.043)
Some College		-0.033	-0.004		-0.069**	-0.074**	-0.137***
		(0.023)	(0.023)		(0.031)	(0.031)	(0.046)
Bachelors Degree +		-0.084***	-0.037		-0.092**	-0.100***	-0.186***
		(0.023)	(0.025)		(0.033)	(0.034)	(0.051)
Log (Annual Wage Income)			-0.052***				0.024***
			(0.004)				(0.004)
At least one child in household						-0.102***	-0.112***
						(0.008)	(0.014)
Constant	0.079***	0.363	0.675*	0.081***	-0.066	0.039	0.409***
	(0.006)	(0.326)	(0.352)	(0.015)	(0.305)	(0.306)	(0.113)
MSA Fixed Effects	No	Yes	Yes	No	Yes	Yes	Yes
Observations	5982	5982	4519	6087	6087	6087	4118
R-squared	0.004	0.082	0.101	0.009	0.085	0.099	0.127

Notes: The crude divorce rate is the number of divorces per 1,000 inhabitants in the country of origin. This information was obtained from the UN Demographic Yearbook. The sample, obtained from the 5% microdata sample of the 2000 U.S. Census, consists of immigrants who arrived to the US at or below the age of 5, who report an ancestry that corresponds to the country in which they were born, reside in an identifiable metropolitan area, and who are either married or divorced. Standard errors, clustered by country of origin, are in parenthesis. \*\*\* Significant at the 1% level, \*\* Significant at the 5% level, \* Significant at the 10% level.

Table 7: Cultural Transmission and the Probability of Being Currently

	(1)	(2)	(3)	(4)
Proportion of MSA Same Ancestry	-0.027	-0.009	-0.239**	-0.472***
1	(0.111)	(0.083)	(0.113)	(0.085)
Crude Divorce Rate	` ,	0.028***	0.021***	` ,
		(0.004)	(0.007)	
Proportion of MSA Same Ancestry			0.118**	0.176***
X Crude Divorce Rate			(0.056)	(0.054)
Age	0.013***	0.014***	0.013***	0.014***
-	(0.002)	(0.002)	(0.002)	(0.002)
Age squared/100	-0.013***	-0.013***	-0.013***	-0.013***
	(0.002)	(0.002)	(0.002)	(0.002)
Male	-0.037***	-0.036***	-0.036***	-0.036***
	(0.007)	(0.007)	(0.007)	(0.007)
High School Graduate or GED	-0.051***	-0.056***	-0.056***	-0.058***
	(0.016)	(0.016)	(0.016)	(0.016)
Some College	-0.045**	-0.053**	-0.053**	-0.056**
	(0.021)	(0.020)	(0.020)	(0.021)
Bachelors Degree +	-0.085***	-0.094***	-0.094***	-0.098***
	(0.023)	(0.022)	(0.022)	(0.023)
Constant	-0.085*	-0.141***	-0.125**	-0.118**
	(0.043)	(0.045)	(0.047)	(0.042)
MSA Fixed Effects	Yes	Yes	Yes	Yes
Country of Origin Fixed Effects	No	No	No	Yes
Observations	12069	12069	12069	12069
R-squared	0.056	0.059	0.059	0.062

Notes: The crude divorce rate is the number of divorces per 1,000 inhabitants in the country of origin. This information was obtained from the UN Demographic Yearbook. The sample, obtained from the 5% microdata sample of the 2000 U.S. Census, consists of immigrants who arrived to the US at or below the age of 5, who report an ancestry that corresponds to the country in which they were born, reside in an identifiable metropolitan area, and who are either married or divorced. Standard errors, clustered by country of origin, are in parenthesis. \*\*\* Significant at the 1% level, \*\* Significant at the 5% level, \* Significant at the 10% level.

APPENDIX A
Divorce Culture and the Probability of Being Currently Divorced using CDRs from 1980-2000 as Cultural Proxies

Dependent Variable: Divorced	(1)	(2)	(3)
Age	0.013***	0.013***	0.014***
	(0.002)	(0.002)	(0.002)
Age Squared/100	-0.013***	-0.013***	-0.013***
	(0.002)	(0.002)	(0.002)
Male	-0.036***	-0.036***	-0.036***
	(0.007)	(0.007)	(0.007)
High School Graduate or GED	-0.056***	-0.056***	-0.056***
	(0.015)	(0.015)	(0.016)
Some College	-0.053**	-0.052**	-0.053**
	(0.020)	(0.020)	(0.021)
Bachelors Degree +	-0.093***	-0.093***	-0.094***
	(0.022)	(0.022)	(0.023)
Crude Divorce Rate 1980	0.021***		
	(0.004)		
Crude Divorce Rate 1990		0.023***	
		(0.004)	
Crude Divorce Rate 2000			0.029***
			(0.004)
Constant	0.188	0.183	0.159
	(0.308)	(0.308)	(0.306)
MSA Fixed Effects	Yes	Yes	Yes
Observations	12069	12069	12069
R-squared	0.058	0.058	0.059

Notes: The crude divorce rate is the number of divorces per 1,000 inhabitants in the country of origin. This information was obtained from the UN Demographic Yearbook. The sample, obtained from the 5% microdata sample of the 2000 U.S. Census, consists of immigrants who arrived to the US at or below the age of 5, who report an ancestry that corresponds to the country in which they were born, reside in an identifiable metropolitan area, and who are either married or divorced. Standard errors, clustered by country of origin, are in parenthesis. \*\*\* Significant at the 1% level, \*\* Significant at the 5% level, \* Significant at the 10% level.

APPENDIX B
Descriptive Statistics of Country of Origin Variables

Country	CDR 2000	GDP	Total fertility rate	% Weekly church atendence	% Catholics	Ethnic endogamy rates	Average female age at first marriage
Russia	4.28	0.18	1.20	3.10	0.51	0.30	22.60
Lithuania	3.11	0.33	1.40	8.35	92.48	0.04	23.70
Czechoslovakia	2.89	0.55	1.10	6.92	84.33	0.12	24.60
Denmark	2.69	3.00	1.80	3.32	0.88	0.02	30.10
Finland	2.69	2.35	1.70	11.96	0.10	0.05	28.60
Belgium United	2.63	2.28	1.60	11.47	90.66	0.03	26.80
Kingdom	2.62	2.46	1.60	15.35	15.36	0.01	28.30
Latvia	2.58	0.33	1.20	27.88	33.17	0.17	24.90
Austria	2.44	2.39	1.40	11.48	91.45	0.06	28.10
Sweden	2.42	2.77	1.60	12.51	1.90	0.11	30.60
Hungary	2.39	0.47	1.30	8.87	69.53	0.09	24.70
Germany	2.37	2.31	1.40	10.99	35.28	0.05	28.40
Norway	2.24	3.75	1.80		1.18	0.05	28.90
Netherlands	2.18	2.42	1.70	12.78	49.94	0.06	29.10
France	1.94	2.18	1.90	5.15	91.78	0.03	28.60
Portugal	1.87	1.10	1.60	28.90	96.66	0.24	25.70
Switzerland	1.46	3.44	1.50		46.67	0.06	27.90
Romania	1.37	0.17	1.40	13.17	7.68	0.31	23.60
Bulgaria	1.29	0.16	1.30	6.89	0.29	0.14	24.70
Poland	1.12	0.45	1.40	34.15	98.32	0.24	23.50
Greece	1.11	1.16	1.30	12.36	1.56	0.21	26.80
Spain	0.97	1.44	1.20	17.75	97.96	0.03	28.10
Ireland	0.69	2.53	1.90	35.57	96.03	0.09	30.40
Italy	0.65	1.90	1.30	14.67	99.27	0.11	28.10
Average	1.97	2.05	1.47	14.53	51.35	0.08	27.87
Std. Dev.	0.78	0.64	0.17	6.84	34.92	0.07	1.46

Notes: Countries of origin are ordered from higher to lower Crude Divorce Rates in 2000. Detailed variable definitions and data sources are provided in Appendix C.

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Data Sources and Definition of Variables	of Variables	
Variable	Definition	Source
Control Variables		
Age	Age of immigrants	2000 US census
Male	1 if immigrant is male	2000 US census
High school	1 if immigrant reports having completed grade 12	2000 US census
Some college	1 if immigrant reports 1 to 3 years of college	2000 US census
Bachelors degree +	1 if immigrant reports 4+ years of college	2000 US census
Concentration	Proportion of individuals with the same ancestry by	
	metropolitan area in 2000	2000 US census
At least one child	1 if the immigrant woman reports having at least one child in the household	2000 US census
Log wage	Log of wage income	2000 US census
Cultural Proxies, measured i	Cultural Proxies, measured in the year 2000 except where otherwise noted	
Crude divorce rate	Number of divorces per 1000 mid-vear inhabitants	
	•	UN Demographic Yearbooks and Eurostat
Total divorce rate	Number of divorces per 1000 married inhabitants	
		Eurostat and National Statistics Offices
% saying divorce	refeent individuals who report divorce can never be justined (answers 1, 2	Computed by authors using data from the world
never justifiable	and 3 to the question of the $WVS$ ). All waves.	Values Survey (WVS)
Country of Origin Variables	Country of Origin Variables, measured in the year 2000 except where otherwise noted	
Gross Domestic Product (GDF	Gross Domestic Product (GDP) Per Capita GDP in tens of thousands of US dollars in current	United Nations Statistics
Percent weekly	Percent individuals who report weekly attendance at church, mosque or	Computed by authors using data from the World
church attendance	synagogue (Wave 1999-2004), No data for Norway and Switzerland	Values Survey (WVS)
Percent Catholics	Percent individuals who report being Roman Catholic (Wave 1999-2004	Computed by authors using data from the World
	and Wave 1994-1999 for Norway and Switzerland)	Values Survey (WVS)
Total fertility rate	Total fertility rate	United Nations Economic Commission for Europe (UNECE) Statistical Division Database
Interethnic marriage rate	The proportion of married men (spouse present) who arrived at the US at or under the age of 5 whose share a common hirth place	Computed by authors using 2000 US census
Average female age at first	Δαρ at first marriage for females	United Nations Economic Commission for Furope
Avelage ichiale age at mot	Age at that mainings for isomatics	CHIECA INDICAL ECONOMIC COMMISSION IN ECTOPS
Marriage	( Ireland 2002, Kussia 1995, Norway 1999)	(UNECE) Statistical Division Database