The Power of the Family[1]

Alberto Alesina and Paola Giuliano

First Draft: December 2006
Revised: August 2007

Abstract

We study the importance of culture, as measured by the strenght of family ties, on economic behavior and attitudes. We define our measure of family ties using individual responses from the World Value Survey regarding the role of the family and the love and respect that children need to have for their parents for over 70 countries. We show that strong family ties imply more reliance on the family as an economic unit which provides goods and services and less on the market and on the government for social insurance. With strong family ties home production is higher, labor force participation of women and youngsters, and geographical mobility, lower. Families are larger (higher fertility and higher family size) with strong family ties, which is consistent with the idea of the family as an important economic unit. We present evidence on cross country regressions. To assess causality we look at the behavior of second generation immigrants in the US and we employ a variable based on the grammatical rule of pronoun drop as an instrument for family ties. Our results overall indicate a significant influence of the strength of family ties on economic outcomes.

Keywords: family ties; culture; home production and market activities, immigrants.

JEL-Classification: Z10, Z13

[1]Alesina: Harvard University, Department of Economics, CEPR and NBER; Giuliano: Harvard University, Department of Economics, IMF and IZA. We thank Rafael di Tella, Assar Lindbeck, Andrei Shleifer, and seminar participants at Harvard Business School, the IIES (Stockholm), the Research Institute of Industrial Economics (Stockholm), Maastricht University, Suffolk University, University of Connecticut, Boston Fed, Ente Einaudi (Rome), the IZA-SOLE Transatlantic Meeting of Labor Economists for useful comments.

1 Introduction

The family is one of the most important socio economic institutions in our society, but the nature of the links between family members varies dramatically across nationalities. Do countries with a culture fostering strong family ties tend to have different economic outcomes than more individualistic societies? While sociologists and political scientists have paid some attention to this question, this is an issue vastly ignored by economists. Even though the latter do recognize the role of the family in economic decisions, there is not sistematic empirical evidence isolating the importance of culture, as measured by the strenght of family ties, on economic outcomes.

The idea that culture matters for economic outcomes is not new, but only recently economists have started to quantify its importance[1]. The empirical evidence so far has been limited to the importance of trust or to generic measures of culture[2]. We contribute to this debate by proposing a new measure of culture, by addressing causality looking and the behavior of second generation immigrants in the US, and by employing a variable based on the grammatical rule of pronoun drop as an instrument for family ties. The core of our strategy will be to understand whether some specific family arrangements, such as the amount of home production, the labor force participation of household members, the role of the woman in the family and in the society, are the result of market environments and specific institutional features of a society, or whether they are, at least partially, an outcome of long lasting cultural norms, reflecting differences in loyalties and duties across generations in different countries.

We construct our cultural measure of family ties, using individual responses from the World Value Survey on the role of the family and the love and respect that children need to have for their parents for over 70 countries. Our hypothesis in the most general terms is that strong family ties societies rely more on the family than on the market and the government for production of income and insurance. This basic idea has a host of implications that are important both for understanding individual behavior and for targeting appropriately public policies.

To begin with we find that when family ties are strong there is more reliance on home production and less participation in market activities, especially in the case of youngsters

[1] Such a view dates back to at least Max Weber and Adam Smith and received attention more recently by Fukuyama (1995) and Banfield (1958). See Guiso, Sapienza and Zingales (2006) for a review on the importance of culture on economic outcomes.

[2] Antecol (2000), Giuliano (2007) and Fernandez and Fogli (2007) use as a measure of culture economic variables in the country of origin and link them to the behavior of second generation immigrants on the ground that those variables are a combination of country's economic conditions and beliefs, but only the latter are relevant for second generation immigrants as they live in a country with a different economic environment.

and women. In particular the role of women in the family and in the society is different. According to the sociological literature, strong family ties imply a stricter division of labor with the male working in the market and the female working at home performing a variety of services, probably including maintaining the family ties strong. Consistently with this, women education is lower with strong family ties and fertility higher. Since strong family ties produce social insurance, less is needed from the government. Family ties and the insurance that they provide can work only if extended families live close to each other and therefore geographical mobility is lower. With strong family ties inward looking families trust family members more but trust non family members less.

Strong family ties are by no mean an economic "bad" on all grounds. With strong family ties participation in market activities is lower, but home production is higher. Since home production is by and large not included in GDP statistics, the later could display a downward bias as a measure of total production (home and market) in countries with strong family ties. Even though lower market participation may imply a lower income, family ties reduce the variance of income by providing insurance. On balance, are people happier or not in cultures with strong family ties? Is there a trade off between participation in market activities with their ups and downs and uncertainty, and happiness or life satisfaction? This is of course an exceptionally difficult question to answer. We find that indeed strong family ties are correlated positively with happiness, at least to the extent that happiness data can be trusted.

After establishing these correlations, we address the issue of causality. Although cross country differences in family links have most likely long historical roots, we formally address this issue of causality in several ways. First, we use second generation immigrants in the U.S. If differences in economic behavior as a function of family ties persist among second generation immigrants, they cannot be attributed to a different economic environment, as all immigrants face the same one. Using second generation immigrants is a good way of addressing endogeneity, but it is not free of problems. Although the selection problem is mitigated compared to the first generation, second generations are still not a random sample of the population. Omitted variables remain also a concern: even among second generation immigrants our cultural variable could capture some factors which are related to some other characteristics of the countries of origin.

It should be noted that selection in our case goes against finding an effect of the strength of family ties on the economic outcomes of second generation immigrants: the ones who left their countries of origin probably are the less attached to their family in the first place. We address the problem of omitted variables by controlling for some characteristics of the ethnic communities where second generation immigrants live and

that could be correlated with our family ties proxy. As an additional test for exogeneity, we use a linguistic instrument related to the structure of different languages which is shown to be correlated to views about family ties, but most likely exogenous to the economic conditions.

Our paper is related to two lines of research. One is the work by political scientists, sociologists and some economists on the socio economic role of the family. Early important work by Banfield (1958) identified "amoral familism" as one of the main causes of Southern Italy's underdevelopment, and Putnam (1993) and Fukuyama (1995) recognized that the lack of reciprocal trust is detrimental to development. Gambetta (1990) shows how a critical characteristic of the mafia "families" is that one can trust only family members, and that the mafia family structure enforces trust in a society lacking it. Esping-Andersen (1999) has argued that differences in welfare systems and employment across different European countries can be traced back to different family structures. Familistic societies are characterized by the "male-bread winner and female housewife model", the family is also seen as the institution able to internalize social risk by pooling resources across generations as opposed to the State and the Market. Reher (1998) argues that beliefs of respect for parents are normally associated with specific forms of living arrangements; similarly geographic mobility is limited as young people tend to live around their family nest. Coleman (1988) argues that family ties can facilitate or inhibit social actions. On the one hand, the young generation receives support from the old one, on the other this sense of belonging to a small community can inhibit individual innovation and openness to new ideas in general. Economists have also noted how in developing countries, especially in Africa, extended family links have substituted for missing credit markets, as discussed for instance in La Ferrara (2003)[3]; there is also a large literature on the relationship between family-controlled firms and institutions (La Porta, Lopez-de-Silanes and Shleifer, 1999); and on the relationship between family structure and inheritance norms and the performance of family businesses (Perez-Gonzales, 2004). Bentolilla and Ichino (2006) study how countries with different family ties (namely Italy and Spain with strong family ties, the US and the UK with less strong ties) cope with unemployment shocks. They find that the consumption losses after the termination of a job are much lower in Mediterranean Europe, due to strong family ties. There is also a lot of research in sociology looking at the importance of family structure, kinship ties and the quality of parent-child relationship in the study of poverty in lower-class settlements of different countries (Lewis, 1959; Winter, 1975).

[3]Our focus will not be on very poor countries.

The second line of research is a recent literature measuring the importance of culture in the determination of economic outcomes. It includes the impact of culture on development (Tabellini, 2006) and trade (Guiso, Sapienza and Zingales (2005)), the importance of religious beliefs for growth (Barro and McCleary, 2003 and 2006), but also microeconomic studies showing that long lasting cultural differences can determine outcomes such as living arrangements (Giuliano, 2007), fertility and female labor force participation (Fernandez and Fogli, 2005). The closest paper to the present one is work by Bertrand and Schoar (2006). Using cross-country evidence the authors show that strong family ties societies have smaller firms, more self-employment and a large fraction of family controlled firms among listed firms. They, however, do not formally address any issue related to endogeneity.[4]

This paper is organized as follows. Section 2 presents evidence on cross country differences using evidence drawn from close to 80 countries. Section 3 focuses on second generation immigrants in the US. Section 4 discusses our instrument for family ties based upon linguistic structure and other robustness checks. Section 5 concludes.

2 Cross country evidence

2.1 Data

2.1.1 Data description

We use the 1995-97 and 1999-2000 waves of the World Value Surveys (WWS) and the Multinational Time Use Study. The World Value survey is a compilation of national surveys on values and norms on a wide variety of topics. It has been carried out four times, in 1981-84, 1990-1993, 1995-97 and 1999-2004. The coverage varies depending on the wave, starting with 22 countries in 1980 and reaching 81 countries in the fourth wave. The questionnaire contains information on different types of attitudes, religion and preferences, as well as information on standard demographic characteristics (sex, age, education, labor market status, income, etc.). We use the last wave, which is representative of 85% of the world's population (there are in average about 1,000-1,200 individual records per country). The majority of the surveys in our sample are from 1999-2001, but we also included 13 countries[5] that were surveyed in the 1995 wave, in order to provide the broadest possible cross-national comparison. Our sample consists of 78 countries with a broad variety of income levels, religion and geography.

[4] As an indirect way of addressing causality, the authors note that family ties remain constant over time (at least from the 1980s to today) even for countries experiencing big economic transformations.

[5] These 13 countries are Azerbaijan, Australia, Armenia, Brazil, Taiwan Province of China, Columbia, Dominican Republic, El Salvador, Republic of Georgia, New Zealand, Norway, Switzerland and Uruguay.

We use the Multinational Time Use Study to analyze the impact of family ties on home production. This survey is a cross-nationally harmonized set of time use surveys composed of identically recorded variables. Each case in the dataset corresponds to one diary day. Only records with complete diaries (expressed in minutes and that added up to 24 hours) are included. Diaries with more than 60 minutes of unclassified or missing time are excluded. The sample of countries is however small: 12 countries covered for the 1990s. Descriptive statistics for all our outcomes of interest are found in the Appendix.

2.1.2 Weak and strong family ties

We measure the strength of family ties by looking at three WVS variables capturing beliefs on the importance of the family in an individual's life, the duties and responsibilities of parents and children and the love and respect for one own parents. The first question assesses how important is the family in one person's life and can take values from 1 to 4 (with 1 being very important and 4 not important at all). The second question asks whether the respondent agrees with one of the two statements (taking the values of 1 and 2 respectively): 1) Regardless of what the qualities and faults of one's parents are, one must always love and respect them, 2) One does not have the duty to respect and love parents who have not earned it. The third question asks respondents to agree with one of the following statements (again taking the values of 1 or 2 respectively): 1) It is the parents' duty to do their best for their children even at the expense of their own well-being; 2) Parents have a life of their own and should not be asked to sacrifice their own well being for the sake of their children.

We combine these measures in two ways. First we take the sum of all of them; given the way the variables are coded, a higher number corresponds to weaker family ties. Second, we extract the first principal component from the whole dataset with all individual responses for the original variables. Table 1 displays the correlation at the country level between the three original cultural variables, their sum and the first principal component. All of the variables are highly and positively correlated among each other. Note also that the principal component is almost perfectly correlated with the sum of the three variables; indicating that the principal component assigns very similar weight to all the variables. Given the very high correlation between the sum and the principal component we will use as main cultural variable the first principal component.

2.1.3 Who has weak family ties?

Figure 1 displays the values of our measure of the weakness of family ties (expressed using the first principal component) at the country level (panel a). The ranking of the different

countries is broadly consistent with perceptions and insights from the sociological and political science literature. Germany, Netherlands and the Northern European countries are the countries with the weakest ties, while African, Asian and Latin American countries lye in the lowest range. If we limit our analysis to the OECD countries (panel b), we find that Mexico, Poland, US, Canada and Southern European countries (with the exception of Greece) are among the countries with the strongest ties, while as before Northern Europe, Netherlands and Germany are the group with the weakest ties. We also calculate the average of family ties by geographical regions (Figure 1c): African, Latin American, Asian and Southern European countries (plus Ireland[6]) have the strongest family ties. The Northern European group has the lowest family ties followed by Continental Europe, Central and Eastern Europe and the group including US, Canada, UK, Australia and New Zealand, that is the group of English speaking Anglo Saxons OECD countries. The relatively weak family ties of many Central and Eastern European former communist countries may be the result of Communist collectivist ideology and propaganda.[7]

2.1.4 Specification

For our cross-country empirical analysis, we run a series of regressions of the following type:

$$Y_{ij} = \beta_0 + \beta_1 WFT_{ij} + \beta_2 X_{ij} + \beta_3 \gamma_j + \epsilon_{ij}$$

where the left hand side variable Y_{ij} represents the realization of a certain variable for individual i in country j. We use either probit or ordered logit or OLS depending on the nature of Y_{ij}. WFT_{ij} is our variable of interest defined as "weakness of family ties". X_{ij} are our controls which vary depending on the left hand side variable. Our choice of controls is standard and follows the relevant literature, but two observations are important. First we carefully control for religious variables using as many religious denominations are available in the WVS. This is important for us because in order to evaluate the role of family ties we need to control for religious beliefs which may influence many of the various left hand side variables which we measure (for instance the role of women in society and their fertility or labor participation.) Second in the baseline specification we do not control for the respondent's income because by doing so we would loose many (about 16,000) observations. However we do control for the level of education which is correlated with income.

[6] We include Ireland with Southern European countries as it is considered a strong family ties society by Reher (1998).

[7] For a discussion of the effect of communism on socio economic preferences of individuals see Alesina and Fuchs-Schundeln (2007).

We have rerun all of our regressions controlling for income and all of our results are qualitatively unchanged. None of the relevant coefficients on family ties looses significance with one minor exception, mentioned below. In order to eliminate the impact of other country characteristics, all the regressions include country fixed effects, which are likely to underestimate the effect of family ties to the extent that their impact has been absorbed in the national culture.

2.2 Market activities versus household production

Our hypothesis is that families with strong ties provide many home produced goods and services, like child care, home cooking in family meals, caring for the elderly, children education etc. This of course requires time away from market activities and lower participation in the labor force especially for women, and youth who stay at home longer.

We begin with some simple correlations. Figure 2 (Panels a to c) represents the correlations at the country level between female and youth labor force participation, time spent in home production and the weakness of family ties. The figures a and b show a positive correlation between youth and women labor force participation and weak family ties. As labor force participation is lower in countries with strong family ties, we also explore whether this lower level of participation imply more leisure or more home production. What people do when they do not work in the market is a topic that has received much empirical attention recently in the context of a discussion of a decline in hours worked in the market in some European countries relative to the US.[8] Figure 2c shows the correlation between home production (housework) and family ties in the 12 countries for which data are available[9]. Housework is defined as the sum of the following activities: washing, hanging and ironing clothes, making beds, any form of house cleaning, other manual domestic work, and putting shop away. We do not consider as home production eating and cooking as to some extent they can be close to the leisure definition. We do not also consider kid care as home production since this could be affected by different types of welfare systems. Housework is measured in minutes per day. Each case in the dataset corresponds to one diary day. Note that using data on time use, Burda, Hammermesh and Weil (2006) show that men and women work exactly the same amount with

[8] See Prescott (2004) Blanchard (2004) and Alesina Glaeser and Sacerdote (2005) for instance. Note how in Scandinavian countries with weak family ties, hours worked in the market per person have declined much less than in France Germany and Italy with strong family ties, despite a higher rate of taxation.

[9] Housework is defined as the sum of the following activities: washing, hanging and ironing clothes, making beds, any form of house cleaning, other manual domestic work, and putting shop away. We do not consider as home production eating and cooking as to some extent they can be close to the leisure definition. We do not also consider kid care as home production since this could be affected by different types of welfare systems.

variable shares of market versus non market activities in different countries, a result consistent with the correlation shown above: when women participate less in the labor force they work more at home. It also appears that women involvement in home production is substantially higher in strong family ties societies, while this difference does not exist for men. According to Eurostat (2004), Spanish women devote one more hour to home production per day than Swedish women; on the other hand while 92 percent of Swedish men ever engage in household activities, the fraction is much lower for Spain and Italy where only 70% of men tend to do so.

Now, some statistical analysis. Table 2 reports the results of probit regressions on female (the sample are women 15-64 years old) and youth labor force participation (15-29 years old). The coefficient on WFT is significant with the expected sign, implying more labor force participation of women and youth. The reported coefficients are the effect of a marginal change in the corresponding regressor on the probability of being part of the labor force. The probability of participating into the labor force for women moving from the bottom percentile to the top percentile of WFT would increase by 16%, that is almost a third in the average of female labor force participation. For a young person the probability of participating into the labor force will increase by about 7%.

The coefficient on the other controls are sensible. In the regression for women the education variables[10] have the expected sign and size. More educated women participate more into the labor force. The fact that in the youth regression primary and secondary education have a positive sign is due to the fact that the omitted category include all those attending college or universities (tertiary education) and therefore not in the labor force, just yet. When we exclude students from the regressions, our coefficients on primary and secondary education are negative and significant as expected (see column 3). The omitted category in the religion indicator is Atheists. Note how all coefficients on religion are negative although mostly not significant, except for Catholic and Muslim and Hindu for which it is negative and statistically significant in the women participation regression. The only religion for which both women and youth labor force participation is significantly lower is the Hindu one.

In Table 3 we regress (OLS) the amount of housework for people 15 to 49 years old on a quadratic for age, gender and education and our measure of weak family ties. We merge the individual data on home production coming from the Time Use Survey with our measure of family ties aggregated at the country level. As we have now individual data on the time use and country level data on the weakness of family ties, we cannot control

[10]The dummies for education include completed elementary education and completed secondary education. The excluded group is given by people with some or completed college.

for country fixed effects. However, we control for some other country characteristics that could drive home production such as per capita GDP and years of education[11] (Columns 2 and 3); the standard errors are clustered at the country of origin level. Weak family ties are correlated with less home production. In this case moving from strong to weak family ties will decrease the amount of home production by about 14 minutes, forty percent of the average home production in the sample. The other coefficients are very sensible, for instance the large positive coefficient on women for home production.

As a further robustness check we also control for other cross-country differences that could be relevant in the determination of home production. Following Nickel et al. (2006) and Jaumotte (2003), we first control for a series of tax variables. Those variables include the marginal tax rates facing married women at zero hours of work and when they are earning 67% of average earnings given their spouses are earning 100% of average earnings, the marginal tax rate facing a single earner and the average tax wedge[12]. We also control for the strictness of employment protection laws[13] and for variables capturing public expenditure on children and parental leave[14]. Overall, the inclusion of all these variables does not change our results. Note that we do not have all these additional controls for our sample. The data are available for only 8 of our countries. For that reason, we first rerun our basic regression for the restricted sample (column 4) and then we include the additional controls. Column 5 controls for the marginal tax rates variables, column 6 for real expenditures on cash services, parental leave and family services and columns 7 and 8 for the employment protection index and the average tax wage, respectively. The results stay the same in all the specifications, with the controls having the expected sign.

2.3 The role of women and fertility

Lower labor force participation of women affects fertility and reflects the perceived role of women in society. To evaluate the latter we use the following 3 questions from the WVS: "When jobs are scarce, men should have more right to a job than women." In the original survey the variable could take the values 1(agree), 2 (neither) and 3(disagree). The second and third variables are phrased as follows "A working mother can establish

[11] The data for years of schooling are obtained from Barro-Lee (2003).

[12] The average tax wedge is the average labor tax rate, the sum of the average payroll, income and consumption tax rates. The data are taken by Faggio and Nickell (2006).

[13] The employment protection index comes from Faggio and Nickell (2006) and it refers to regular employment.

[14] These variables include real expenditure on cash benefits (annual public expenditures in real dollars on family cash benefits per child age 0-14 divided by 1,000); real expenditures on parental leave (annual public expenditure in real dollars on maternity and parental leave per child aged 0-3 divided by 1,000), real expenditures on family services (annual public expeditures in real dollars on family services per child aged 0-14 divided by 1,000).

just as warm and secure a relationship with her children as a mother who does not work", and "Being a housewife is just as fulfilling as working for pay". Those two variables can take the values from 1 (agree) to 4 (strongly disagree). We recode those three variables so that a higher number represents a higher degree of agreement with each statement.

In Table 4 we present our regressions of the three answers concerning the role of women (columns 1 to 3) and fertility (column 4) on our measure of the weakness of family ties, country fixed effects and several individual characteristics, including a quadratic for age, a dummy for being male (not in column 4 obviously!), dummies for the level of education and religion. We run OLS regressions but since our left hand side variables are categorical (for the attitudes variables), we successfully check the robustness of our results running an ordered logit regression. The coefficient on weak family ties has the expected sign for all three attitudinal questions (in two out of three they are statistically significant at conventional levels) and fertility. Moving from a strong to a weak family ties society will improve substantially the attitudes toward a less traditional role of women in the society: moving from a weak to a strong family ties society will reduce the probability of thinking that if jobs are scarce they should go to men by 15%, a 40% of the average attitude in the sample. Belonging to a weak family ties will also reduce the average number of children born to a woman by 0.52, a 30% of the sample average. The other controls also make sense. Men tend to have (more than women) a traditional view about women role. Most religions (remember that the omitted category is atheist) tend to have a more traditional view of women and a higher level of fertility.

2.4 Family versus government insurance

An especially important home produced service is insurance against income fluctuations of family members, both cyclical and related to the life cycle. If this is the case there is less need of government provided insurance with strong family ties. We consider the answer to the following question: "Could you please tell me which type of society you think this country should aim to be in the future. For each pair of statements, would you prefer being closer to the first or the second alternative? A society with extensive social welfare, but high taxes (first statement) versus a society where taxes are low and individuals take responsibility for themselves (second statement). The possible values go from closer to the first statement (1) to closer to the second (5). In Table 5 we show the results. Weak family ties are positively correlated with a preference for an extensive social welfare. The other controls are consistent with the results of others (see for instance Alesina and La Ferrara (2005)). Women, youngster and people with lower income are more pro-government redistribution. We also include as a robustness check a

measure of political attitudes (measured on a scale from 1 to 10 representing whether a person is more left versus right wing) and our results are unaffected. In this regression, the income variable is especially important; when we rerun the same regressions on the smaller sample which allows us to include the income of the respondent, our results on the weak family ties variable is actually even stronger.

2.5 Trust and "inward" attitudes

Social capital, as measured by the level of generalized trust in a society, has been considered an important determinant of economic outcomes, such as growth, economic development and international trade[15]. The nature of family links has been identified as one of the main reasons for the lack of social capital in a society: Banfield (1958) identified "amoral familism" as one of the main causes of Southern Italy's lack of social capital and therefore underdevelopment, similarly Gambetta (1990) shows how a critical characteristics of the mafia "families" is that one can trust only family members, and that the mafia family structure enforces trust in a society lacking it. We test this hypothesis by looking at the impact of family ties on social capital. Alesina and La Ferrara (2002) studied extensively the determinants of trust, but there is no evidence on the importance of family links on social capital. We define a variable called trust, based on the following question: "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" The variable is equal to 1 if participants report that most people can be trusted and 0 otherwise.[16] In Column 1 of Table 6 we report a regression which shows that weak family ties imply more trust[17]. The signs and significance of the controls are consistent with those found in the literature (see Alesina and La Ferrara (2002)); for instance men trust more than women and less educated people trust less. Moving from a strong to a weak family ties society will increase the general level of trust by three percentage points, about 10% of the sample average level of trust. The magnitude of the impact of family ties is smaller compared to the previous variables however it is not inferior to the importance of education. For example increasing the level of education from primary to secondary will increase the level of trust by 2.5 percentage points, about 9% of the sample average of trust in the sample.

Lower trust with strong family ties may capture an inward looking attitude that

[15] See Guiso, Sapienza and Zingales (2006).

[16] We are aware of the criticism to the concept of trust versus trustworthiness which emerges form experiments by Glaeser et al. (2000), but this is an issue which we do not pursue here.

[17] This is the only regression for which controlling for the respondent income makes a bit of a difference. If both income and education are controlled for the variable WFT looses statistical significance at the usual levels maintaining, however, the expected sign. The coefficient on WFT remains significant if income is included and education is not.

may be correlated with other attitudes such as acceptance of new ideas. Some of these attitudes are measured by the WVS. We consider a question representative of inward looking attitudes phrased as follows: "Ideas that have stood the test of time are generally the best" (1) versus "New ideas are generally better than old ones"(10). Weak family ties lead to more acceptance of new ideas, so does age as expected. Men seem more open than women, probably a sign of more risk taking behavior. Relative to atheists only Buddhist seem to be more open to new ideas.

2.6 Happiness

Strong family ties, even though they may imply inward looking attitudes and less market activities, may indeed make people less unhappy and more satisfied with their own life. We look at two questions representing measures of self-reported happiness or satisfaction in life. One is: "Taking all things together, would you say you are very happy, quite happy, not very happy, not all happy" (respondents answered on a 1 to 4 scale with 1=very happy and 4=not very happy at all. We recode this variable so that a higher number corresponds to happiness). The second is : "All things considered, how satisfied are you with your life as a whole these days?" The variable goes from being dissatisfied (1) to being satisfied (10). Self-reported happiness measures have been used by many authors as proxies for well-being[18]. Many however remain skeptical about the use of these variables. We present our results and we let the reader decide.

Table 7 suggests that people belonging to strong family ties societies are happier and more satisfied with their life. The sign and significance of the controls are consistent with those found in the literature (see Di Tella et al., 2001). For instance, women, young, married and more educated people are happier, while being unemployed makes people more unhappy. Moving from a strong to a weak family ties society will increase happiness (life satisfaction) by 0.37 (0.91), about 12% (14%) of the sample average level of happiness (life satisfaction). Thus, strong family ties imply less participation in market activities, lower income (at least lower market income without taking into account home production) but also higher happiness. This consideration may contribute to explain the "puzzle" that in some cases when comparing income levels and happiness one finds that the correlation between the two is far from perfect, a result discussed, for instance, in Layard (2005).

[18]See for instance, Di Tella, Mc Cullock and Oswald (2001), Frey and Stutzer (2002), Blanchflower and Oswald (2004), Alesina, Di Tella and McCulloch (2004) and Layard (2005).

3 Evidence from second-generation immigrants in the US

Heterogeneity in family ties may be a result of differences in institutions or economic conditions. If cultural values were fairly stable over time, then the impact of economic and institutional conditions on cultural variables in general and family ties in particular would be secondary. Bertrand and Schoar (2006) indeed show that measures of family ties have been stable over time even for countries experiencing big economic transformations.

We formally assess causality studying the impact of different forms of family ties in the original countries on a host of economic outcomes of second generation immigrants in the US. We restrict the definition of "second-generation" to native-born individuals whose fathers were born abroad as it is standard in the literature (see Card, DiNardo and Estes, 1998). The use of immigrants (first or second generation) to study the importance of culture on economic behavior is becoming relatively standard in the analysis of culture (see Antecol (2000), Carroll, Rhee and Rhee (1994) , Fernandez and Fogli (2005) and Giuliano (2007) amongst others). By looking at immigrants one holds constant the economic environment but allows variation in immigrants' culture. We restrict our analysis to second generation immigrants, as selection and disruption due to immigration are less relevant (they are born and raised in the US.)

We associate to each immigrant our measure of family ties defined as the average set of beliefs toward the family in the original countries.[19] If our cultural measure is important in the determination of economic outcomes those beliefs should be significant for immigrants; if those beliefs are the result of economic conditions or institutions then this variable should not be important in the determination of economic outcomes among immigrants, as they are now in a different country with the same institutions and economic environment. As emphasized by Bisin and Verdier (2001), Bisin, Topa and Verdier (2004)

[19] Note that our sample mainly consists of individuals between 15 and 29 year old, which means that, since we are considering data from the 1994 to 2005 of the CPS, they are born sometime between 1965 and 1990, so their fathers arrived in the US before that time. Ideally we would like to associate to those individuals the cultural values of their father country of origin for the period of their arrivals in the US. Unfortunately, data on beliefs that go so further back in time do not exist. The only thing we can do, given data availability, is to associate to those immigrants the values that people from their father's country of origin hold today. This is a limitation, but not so dramatic, for several reasons. First, as emphasized before, several recent studies found that cultural differences between nations remained quite stable over time (Inglehart and Baker (2000)), moreover values appear pretty stable even for those countries experiencing dramatic economic changes (see Schwartz, Bardi and Bianchi (2000) for the case of Central and Eastern Europe). The assumption that culture evolves slowly over time is standard in the literature (see Tabellini, 2006.) Moreover, at least for the period between 1980 and 2000, Bertrand and Schoar (2006) found that norms on family values have been pretty stable over time and show little adjustment to economic conditions, at least in the short or medium run.

and Benabou and Tirole (2006) beliefs are partially determined by the actual environment and partially inherited from previous generations, what we called "culture". With the immigrant exercise we precisely try to isolate this cultural component.

There are some problems in taking the unconditional average of our measure of culture at the country level: on the one hand, different characteristics of the country population could drive our results (a richer country could be more likely to develop weaker family ties, similarly for a country with a higher level of education or younger population); on the other hand, there could be a concern of measurement error if the World Value Survey opinion polls are not really representative of the country population. To cope with this problem, we also computed the country measure of family ties after controlling for individual characteristics (age, sex and education). Our conditional measure of culture is given then by the coefficients on the country fixed effects. The correlation between the two measures is very high (0.99) and the results of our regressions do not change when we use the conditional measure.[20]

3.1 Data

Our main dataset is the March Supplement of the Current Population Survey (CPS), the only recent available dataset in which individuals were asked (starting from 1994) about their parents country of origin. We pool eleven years of data to have a higher number of observations. Given the available data on the CPS we can study the following outcomes: female and youth labor force participation, female college education, geographical mobility and living arrangements as measured by the probability of living as young adults in one's parents place, and family size. The March Supplement of the CPS however does not have any information on fertility; for this outcome we rely on the 1990 5% Census[21]. Unfortunately, for fertility we need to limit our analysis to first generation immigrants. We control in this case for a large set of years of immigration dummies.

3.2 Specification

For consistency with the regressions of the previous section, we run the following model in OLS or probit depending on the nature of the left hand side variable:

$$Y_{iks} = \alpha_0 + \alpha_1 WFT_k + \alpha_2 X_i + \delta_s + \varepsilon_{iks}$$

where Y_{iks} is the left hand side of interest for individual i, living in state s and whose father comes from country k. X_i includes a series of individual controls which vary

[20] The results are available from the authors.

[21] The Census 2000 does not have any information on the number of children ever born to a woman.

depending on the outcome of interest and are standard in the literature[22], WFT_k is our measure of the weakness of family ties which varies by immigrants country of origin and δ_s is a full set of state dummies. Standard errors are clustered at the country of origin level. The CPS data set allows us to include the household income of the respondents as one of the controls, without loosing any observation. In the baseline regression we then include income in constant 1994 dollars but for consistency with the cross-country analysis we have also run our regressions without it. The results (available upon request) regarding the effect of family ties are practically identical.

3.3 Market activities versus household production

Tables 8 presents our results for youth labor force participation. To be consistent with the previous session we define a dummy equal to one if person i is in the labor force (labor force participation is defined looking at the number of hours worked last week or weeks worked last year); the sample includes young people 15-29 years old. The two regressions give identical results, so we report only the specification that looks at the number of weeks worked. In Column (1) we run the regression just controlling for a quadratic in age and sex, in Column (2) we add education[23] and marital status and in Column 3 income. All the controls have the expected sign. Labor force participation increases with age and education and it is lower for women. Weak family ties increase labor participation for youngsters.

Table 9 presents our results for female labor force participation (the sample includes women 15-64 years old.) Women belonging to weak family ties societies participate more into the labor market. The coefficient, however, becomes not significant once we add the controls, including education. One reason could that with strong family ties, given their effects on the perception of the women's role in the family, women have lower education, and because of that participate less in the labor force. We explore this hypothesis in Table 10, by looking at the women probability of going to college. We regress this probability on our measure of family ties, a female dummy and an interaction between these two variables. If women tend to go to college more in weak family societies, we should expect a positive sign on the interaction term coefficient. This is indeed the case. In other words in strong family ties societies women go less to college and since they are less educated they participate less into the labor force.

[22] See Blau (1992) and Blau and Kahn (2005) for fertility and labor force participation, and DaVanzo (1983) for geographical migration.

[23] We include two dummies, one for people with up to 12 years of schooling and one for people with some college. The excluded group is given by people with completed college and more.

3.4 Youth geographical mobility and living arrangements

In countries with strong family ties youth tend to live with their parents for a longer period of their life and have a lower level of geographical mobility. In tables 11 and 12, we regress our measure of geographical mobility (a dummy equal to 1 if the person moved within states, between states or abroad) on a quadratic for age, a female dummy, marital status, a dummy for being unemployed and family income . The variable on the weakness of family ties is always significant and with the expected sign; youth belonging to immigrant groups coming from strong family ties societies tend to migrate less and stay more with their parents than youth belonging to weak family ties societies. This is also consistent with Giuliano (2007), who uses as proxies for culture both country dummies and measures of living arrangements in the country of origin. Her sample is limited to only European countries, while we extend our analysis to youth coming from all the regions of the world. All the controls have the expected sign. Interesting enough the fraction of people living at home is higher for men than for women. This could be explained by a higher dissatisfaction of women in living at their parents' place (they probably suffer for the traditional role attributed to them in the society and for the amount of home production, as they tend to carry the burden of it.)

On the magnitude of the impact of family ties: moving from strong to weak family ties would increase youth participation into the labor market by 20%, more than a third of the sample average. When we do not include education as a control, the weakness of family ties increases women's probability of participating into the labor market by 10%, about 17% of the sample average. The impact on youth geographical mobility and the probability of living at their parents' place is even bigger: moving from strong to weak family ties will increase geographical mobility by 4 percentage points (40% of the sample average), and the probability of living at home by 11% (about 50% of the sample average)[24].

3.5 The role of women and fertility

Our last two outcomes of interest are family size and fertility (Tables 13 and 14.) The variable family size counts the number of own family members residing with each individual. As for the previous specification, our variable on family ties is always negative and significant. Strong family ties societies tend to be associated with larger families. Moving from strong to weak family ties societies would decrease the average number of people in a family by 0.57, about 20% of the sample average.

[24]These magnitudes are in line with results by Giuliano (2007).

As we said before, due to data limitation, we need to run our fertility regression for first generation immigrants, controlling for years of immigration dummies. We run our main specification with married women in the age group 15-54[25]. Our controls include a quadratic for age for both husband and wife and level of education for both husband and wife. Fertility decreases with the level of education of both husband and wife, and it is an increasing function of both parents' age, although at a declining rate. Immigrants coming from countries with weak family ties tend to have a significantly lower level of fertility. Moving from weak to strong family ties reduces the number of children by one, a reduction which is equal to almost 50 percent of the sample average.

4 Robustness checks

This section provides robustness tests of our findings on the importance of family ties to explain several economic outcomes (columns 4 to 7 or 8 in the previous tables.) We perform the following robustness checks. First, we control for previous measures of culture. Second, we include the average level of human capital of the first generation of the ethnic group to which each immigrant belongs. Finally we test the robustness of our results to the exclusion of Mexicans, the biggest immigrant group in our sample.

Columns (4) to (6) in all the previous tables include as regressors measures of economic outcome of interests in the country of origin, whenever available. Previous papers (Antecol (2000), Giuliano (2007) and Fernandez and Fogli (2005)) used quantitative variables in the country of origin as a measure of culture. Those measures should summarize economic, institutional and cultural conditions in the country of origin, but if they are significant for second generation immigrants only cultural beliefs should be relevant. Particularly, we include both contemporaneous and past country of origin variables as alternative measures of culture. As discussed in Fernandez and Fogli (2005) it is not clear, a priori, if we should attach to the second generation immigrants measures of culture that are contemporaneous or the measure of cultures that their parents brought when they arrive in the US.

Our measure of family ties remains statistically significant even after including those variables[26]. Our variable appears to capture better the beliefs relevant to determine

[25] We also extend our analysis to all women in the relevant age group, controlling for marital status finding similar results.

[26] Our variable of family ties loose significance only when we include the measure of family size in the original countries for the 1990 and 1980, this could be simply due to the much smaller number of observations, due to lack of information on this variable in the original country. The coefficient remains of similar magnitudes and sign. Note also that we cannot include country of origin variables in the regressions for geographical mobility and living arrangements. For living arrangements those data are available for a very limited set of European countries, and there are no data on geographical mobility for the original countries.

second generation immigrant economic outcomes than the variable representing the same economic outcome in the country of origin. One possible interpretation of this finding is that the relationship between country of origin variables and our measure of culture, ultimately passes through the importance of the family. In other words, the importance of economic outcomes in the original countries for the economic outcomes of immigrant is a function of family values in a society. Alternatively, our family variable might be a better proxy for culture than the other commonly used measures of culture.

As a second robustness check, we investigate if our results are robust to the inclusion of the mean level of human capital of the ethnic group of the fathers' country of origin of our second generation immigrants. This is a standard control in the literature of immigrants assimilation or the role of network[27]; our measure of family ties could indeed simply capture some omitted variables and the level of human capital of the first generation could be the major culprit . We calculate the average level of education for first generation immigrants from the Census 1970 as a measure of ethnic human capital (we chose the Census 1970 because the immigrants who were in the US in this period were very likely to be the fathers of second generation immigrants in our sample)[28]. Our results are robust to the inclusion of this variable.

As a final robustness check, we repeat our specification excluding the Mexicans, to be sure that our results are not driven by the biggest immigrant group in our sample. The exclusion of Mexican second generation immigrants does not change our results.

4.1 An instrument based upon language

Although in the previous section we do our best to control for omitted variables by including the measure of the ethnic human capital from the ethnic group of origin and several country of origin measures, omitted variables could still remain a concern. As an additional test for exogeneity we then instrument our family ties variable using a grammatical rule denoting the use of pronoun as an instrument for culture.[29] The relationship

[27] See Card (1998), Luttmer (2001), Fernandez and Fogli (2005) and Blau (2006). The importance of the ethnic human capital was first introduced by Borjas (1992 and 1995), who showed that educational attainment and wages of second generation immigrants in the Census 1970 crucially depend on the mean level of human capital of the ethnic group of their fathers' country of origin (defined as the human capital of the first generation immigrants).

[28] We calculate the average level of education (defined as the average of the educational variable in the Census, taking values from 1 to 9, with 1 being no education and 9 more than college) for men between 15 and 45 years old. Those men should be approximately correspond to the fathers of our second generation immigrants.

[29] This variable considering the grammatical rule on pronoun drop has been used for the first time by Licht et al. (1994) as an instrument for cultural emphasis on embeddedness versus autonomy. When they instrument culture with pronoun drop the authors find a significant influence of culture on governance.

between language and culture has been a major issue of concern for applied psychology and anthropology. Hill and Mannheim (1992) suggest that grammatical categories transmit and reproduce culture and social categories. Similarly Kashima and Kashima (1998) try to test the correlation between global cultural characteristics of cultures and rules of language used in those cultures. Some colorful evidence (Semin and Rubini (1990)) also shows that there is a relationship between individualism-collectivism and verbal abuses.

We use the intuition of Kashima and Kashima (1998), that language may embed a particular conception about relationships among people. They suggest that the linguistic practice of pronoun drop, particularly the omission of the first-person singular pronoun (e.g., "I" in English), is linked to the psychological differentiation between the speaker and the context of speech. Societies more individualistic in nature tend to emphasize the importance of the individual in the context of speech, so they tend to keep the first-person singular pronoun. More collectivistic societies, on the other hand, tend to drop the first pronoun.

Our hypothesis is that societies with weak family ties are more individualistic, therefore should be associated with pronoun drop. This intuition is confirmed from the very high correlation between family ties and the linguistic variable on pronoun drop: the correlation is 0.55. The list of countries belonging to the two different language structures is also described in Table A5. The instrument is very unlikely to be related to the economic outcomes of second generation immigrants, who also have English as their primary language. Tables 15 and 16 report the results of the instrumental variables regressions. All the results are consistent with the corresponding OLS models, exhibiting only slightly higher coefficients. Table 17 reports the coefficients on the variable on pronoun drop coming from our first stage regressions.

5 Conclusions

The family is a key socio economic unit in society and the nature of its organization greatly varies across nationalities. In some cultures/nationalities family ties are weak and members only feel obligated up to a point to be linked to others members of the family. In other cultures family ties are strong. We measure family ties based on answers from the World Value Survey and we show that strong family ties imply more home production of goods and services and less participation in market activities especially for women and youngsters which stay at home longer. This is associated with higher fertility (family ties may also provide child care services) and a more "traditional" role for women, with less education and more work at home. Strong family ties are also associated with less

geographical mobility since ties are more useful if people live close to each other. Family with strong ties trust family members more but trust others outside the family less and are inward looking. On the positive side, people belonging to strong family ties societies appear to be happier and satisfied with their life.

In order to mitigate problems of reverse causation and endogeneity of cultural traits to economic outcomes we use second-generation immigrants in the US as a test that holds constant the economic environment but allows variation in immigrants' culture. We also use an instrument based on linguistic characteristics, on the assumption that the language structure is correlated (as it is) to beliefs about individualistic versus groups relationships. Overall both the size and the statistical significance of the coefficients imply a large effect of the nature of family relationships on economic structures. These considerations are important for the design of public polices since the same set of interventions may have very different effects in countries with different family ties.

References

[1] Alesina A. and N. Fuchs-Schundeln (2007) "Good Bye Lenin (or not?). The effect of Communism on people's preferences" *American Economic Review,* forthcoming

[2] Alesina A. E. Glaeser and B. Sacerdote (2005) "Work and Leisure in the US and Europe: Why so Different?" *Brookings Papers on Economic Activity*, Fall

[3] Alesina A. and E. La Ferrara (2005) " Preference for Redistribution in the Land of Opportunity" *Journal of Public Economics,* 89 897-931

[4] Alesina A. and E. La Ferrara (2002), "Who Trust Others?" *Journal of Public Economics* 85, 207-34.

[5] Card, D., DiNardo J. and E. Estes (1998), "The More Things Change: Immigrants and the Children of Immigrants in the 1940s, the 1970s, the 1990s", NBER Working Paper 6519

[6] Coleman, J. (1988), "Social Capital in the Creation of Human Capital", *American Journal of Sociology* 94, 95-121.

[7] Banfield, E. C. (1958), *The Moral Basis of a Backward Society*, New York: The Free Press

[8] Barro, R. and R. McCleary (2003), "Religion and Economic Growth", *American Sociological Review* 68, 760-781

[9] Barro, R. and R. McCleary (2006), "Religion and Economy", *Journal of Economic Perspectives* 20, 1-25

[10] Benabou, R. and J. Tirole (2006), "Beliefs in a Just World and Redistributive Politics", *Quarterly Journal of Economics*, 121(2), pp. 699-746.

[11] Bentolila, S. and A. Ichino, "Unemployment and Consumption Near and Far Away From the Mediterranean?" *Journal of Population Economics*, forthcoming.

[12] Bertrand, M. and A. Schoar (2006), "The Role of Family in Family Firms", *Journal of Economic Perspectives*, Spring 2006

[13] Bisin, A. and T. Verdier (2001), "The Economics of Cultural Transmission and the Evolution of Preferences", *Journal of Economic Theory*, 97(2), 298-319

[14] Bisin, A., G. Topa and T. Verdier (2004), "Cooperation as a transmitted cultural trait", *Rationality and Society,* 16, pp. 477-507.

[15] Blanchard O. (2004), "The Economic Future of Europe" *Journal of Economic Perspectives*

[16] Blachflower D. and A. Oswald (2004)' Wellbeing over time in Britain and in the US" *Journal of Public Economics,* 88, 1359-86

[17] Burda M. D. Hammermesh and P. Weil (2006), "Different but Equal: Total Work, Gender and Social Norms in EU and US Time Use", mimeo

[18] Di Tella R, R. Mc Culloch and A. Oswald A. (2001) "Preferences for Inflation and Unemployment: Evidence from Surveys on Happiness" *American Economic Review, 91,* 335-41

[19] Easton, S.T. and M.A. Walker (1997), "Income, Growth and Economic Freedom", *American Economic Review* 87(2), 328-332.

[20] Esping-Andersen (1999), *Social Foundation of Post-Industrial Economies*, Oxford, Oxford University Press, 1999

[21] Fernandez R and A. Fogli (2005), "Culture: An Empirical Investigation of Beliefs, Work and Fertility", NBER Working Paper 11268

[22] Fukuyama, F. (1995) *Trust: The Social Virtues and the Creation of Prosperity*, New York: Free Press

[23] Gambetta, A. (1990), *The Sicilian Mafia*, Oxford University Press, Oxford UK

[24] Giuliano, P. (2007), "Living Arrangements in Western Europe: Does Cultural Origin Matter?", *Journal of the European Economic Association*, 5(5): 927-952.

[25] Guiso, L., P. Sapienza and L. Zingales (2003), "People's Opium? Religion and Economic Attitudes", *Journal of Monetary Economics,* 50, 225-282.

[26] Guiso, L., P. Sapienza and L. Zingales (2004), "Cultural Biases in Economic Exchange", NBER Working Paper 11005

[27] Guiso, L., P. Sapienza and L. Zingales (2006), "Does Culture Affect Economic Outcomes?" *Journal of Economic Perspectives*, Spring 2006

[28] Hill, J. H. and B. Manheim (1992), "Language and World View", *Annual Review of Anthropology*, 21, 381-406

[29] Kashima, E. and Y. Kashima (1998), "Culture and Language: The Cause of Cultural Dimensions and Personal Pronoun Use", *Journal of Cross-Cultural Psychology*, 29: 461-487

[30] Knack, S., P. Keefer (1997), "Does Social Capital Have an Economic Payoffs? A Cross-Country Investigation", *Quarterly Journal of Economics* 112 (4), 1251-1288

[31] Knack, S., P. J. Zak (2001), "Trust and Growth", *Economic Journal* 111 (470), 295-321

[32] Inglehart, R. and W. Baker (2000), "Modernization, Cultural Change and the Persistent of Traditional Values", *American Sociological Review*, 65: 19-51

[33] La Ferrara (2003), "Kin Groups and Reciprocity: A Model of Credit Transactions in Ghana", *American Economic Review,* 93(5), 1730-1751.

[34] Layard, R.: "Happiness Lessons from a New Science" (2005), Penguin, UK.

[35] Licht, A., C. Goldschmidt and H. Schwartz (1994), "Culture Rules: The Foundations of the Rule of Law and Other Norms of Governance", Berkeley, mimeo

[36] Luttmer, E. (2001), "Group Loyalty and the Taste for Redistribution," *Journal of Political Economy*, 109(3).

[37] Prescott E. (2004) "Why Do Americans Work so much more than Europeans?" Federal Reserve of Minneapolis Quarterly Review

[38] Putnam (1993), *Making Democracy Work. Civic Traditions in Modern Italy*, Princeton-NJ: Princeton University Press.

[39] Reher, D., "Family Ties in Western Europe: Persistent Contrasts", *Population and Development Review*, XXIV (1998), 203-234

[40] Schwartz, S., A. Bardi and G. Bianchi (2000), "Values Adaptation to the Imposition and Collapse of Communist Regimes in East-Central Europe", in Renshon, S. A. and J. Duckitt Eds. *Political Psychology: Cultural and Cross-Cultural Foundations*. New York: New York University Press.

[41] Semin, G. R. and M. Rubini (1990), "Unfolding the Concept of Person by Verbal Abuse", *European Journal of Social Psychology*, 20, 463-374

[42] Tabellini (2006), "Culture and Institutions: Economic Development in the Regions of Europe", mimeo

Table 1
Correlation among Family Values

	Family Important	Parental Duties	Respect and love parents	Principal component	Sum
Family Important	1.0000				
Parental Duties	0.3558	1.0000			
Respect and Love Par.	0.5585	0.5225	1.0000		
Principal Component	0.6910	0.8514	0.8506	1	
Sum	0.5364	0.8391	0.9012	0.9740	1

Correlations are calculated at the country level

Table2
Family ties, Youth and Female Labor Force Participation

	(1) Women LFP	(2) Youth LFP	(3) Youth LFP (excluding students)
Weak family ties	0.015	0.008	0.009
	(0.003)***	(0.003)**	(0.001)***
Primary	-0.224	0.108	-0.184
	(0.008)***	(0.009)***	(0.011)***
Secondary	-0.093	0.131	-0.070
	(0.007)***	(0.008)***	(0.005)***
Age	0.084	0.213	-0.026
	(0.002)***	(0.012)***	(0.006)***
Age squared	-0.001	-0.004	0.000
	(0.000)***	(0.000)***	(0.000)***
Catholic	-0.031	-0.009	0.001
	(0.013)**	(0.014)	(0.006)
Protestant	-0.018	-0.009	0.001
	(0.015)	(0.017)	(0.007)
Orthodox	0.010	-0.028	-0.001
	(0.021)	(0.027)	(0.012)
Jews	-0.072	0.006	0.033
	(0.053)	(0.058)	(0.010)***
Muslim	-0.069	-0.025	-0.035
	(0.017)***	(0.019)	(0.011)***
Hindu	-0.065	-0.105	-0.035
	(0.030)**	(0.037)***	(0.036)
Buddhist	-0.032	-0.027	-0.031
	(0.026)	(0.035)	(0.026)
Other	0.017	-0.003	-0.008
	(0.015)	(0.016)	(0.007)
Married	-0.124		
	(0.009)***		
Single	0.096		
	(0.011)***		
Male		0.274	0.259
		(0.006)***	(0.005)***
Observations	40763	26138	19926

Robust standard errors in parenthesis, regressions controls for country fixed effects
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 3
Family Ties and Home Production

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Weak fam. ties	-7.546	-8.171	-7.482	-10.057	-12.052	-7.025	-14.201	-10.362
	(4.074)*	(2.751)**	(3.040)**	(5.189)*	(2.962)***	(3.632)*	(3.912)***	(4.550)*
Age	8.311	8.197	8.166	8.545	8.514	8.601	8.534	8.587
	(0.694)***	(0.722)***	(0.726)***	(0.851)***	(0.848)***	(0.836)***	(0.844)***	(0.856)***
Age squared	-0.102	-0.100	-0.100	-0.103	-0.103	-0.104	-0.103	-0.104
	(0.009)***	(0.009)***	(0.009)***	(0.011)***	(0.011)***	(0.011)***	(0.011)***	(0.011)***
Secondary educ.	-7.639	-6.099	-5.453	-7.110	-6.588	-7.359	-6.703	-7.745
	(2.048)***	(2.341)**	(2.495)*	(2.791)**	(3.018)*	(2.611)**	(2.671)**	(2.738)**
Tertiary educ.	-16.005	-13.313	-12.360	-14.046	-13.334	-14.155	-13.598	-14.813
	(2.180)***	(2.486)***	(2.638)***	(2.805)***	(3.154)***	(2.630)***	(2.620)***	(2.903)***
Employed	-29.473	-29.157	-29.066	-29.779	-29.859	-29.979	-29.809	-29.629
	(3.573)***	(3.557)***	(3.575)***	(4.329)***	(4.349)***	(4.361)***	(4.435)***	(4.350)***
Female	53.616	53.726	53.745	55.657	55.702	55.604	55.686	55.723
	(6.595)***	(6.574)***	(6.583)***	(8.360)***	(8.357)***	(8.350)***	(8.335)***	(8.356)***
Real GDP		-0.000		-0.001	0.000	0.001	0.000	-0.000
		(0.000)***		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Years of educ.			-1.588	0.108	-1.473	-4.490	-0.457	0.638
(Barro-Lee)			(0.495)***	(1.795)	(2.010)	(1.805)**	(1.524)	(1.771)
Marginal tax rate, single (100)					67.404			
					(18.455)***			
Marginal tax rate, spouse (100,0)					-7.280			
					(10.194)			
Marginal tax rate, spouse (100,67)					-10.768			
					(25.977)			
Real expenditure on cash benefits per child (0-14)						4.348		
						(2.776)		
Real expenditure on parental leave per child (0-3)						0.622		
						(0.498)		
Real Expenditure on family services per child (0-14)						-1.192		
						(4.237)		

Employment Protection Index							4.414 (1.258)***	
Average tax wedge								33.360 (12.146)**
Observations	132588	132588	132588	102555	102555	102555	102555	102555
R-squared	0.21	0.21	0.21	0.24	0.24	0.24	0.24	0.24

Standard errors are clustered at the country level

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 4
Family Ties, the Role of Women in the Society and Fertility

	(1)	(2)	(3)	(4)
	Job Scarce	Woman Housewife	Working Mom	Fertility
Weak Family Ties	-0.017	-0.052	-0.001	-0.071
	(0.001)***	(0.003)***	(0.003)	(0.006)***
Male	0.095	0.065	-0.162	
	(0.003)***	(0.006)***	(0.006)***	
Primary Education	0.165	0.168	-0.155	0.963
	(0.004)***	(0.009)***	(0.008)***	(0.020)***
Secondary Education	0.078	0.065	-0.079	0.372
	(0.004)***	(0.008)***	(0.007)***	(0.016)***
Age	0.001	0.002	0.003	0.271
	(0.000)***	(0.001)*	(0.001)***	(0.004)***
Age Squared	0.000	0.000	-0.000	-0.003
	(0.000)**	(0.000)**	(0.000)***	(0.000)***
Catholic	0.033	0.044	-0.000	0.053
	(0.006)***	(0.013)***	(0.012)	(0.030)*
Protestant	0.029	0.044	-0.026	0.105
	(0.007)***	(0.015)***	(0.014)*	(0.034)***
Orthodox	0.023	-0.019	-0.027	-0.006
	(0.011)**	(0.023)	(0.021)	(0.047)
Jews	0.056	0.031	0.042	0.359
	(0.023)**	(0.048)	(0.045)	(0.111)***
Muslim	0.114	0.066	-0.100	0.271
	(0.010)***	(0.019)***	(0.018)***	(0.045)***
Hindu	0.098	0.056	-0.028	0.057
	(0.018)***	(0.034)	(0.030)	(0.067)
Buddhist	0.038	0.013	-0.014	-0.024
	(0.014)***	(0.021)	(0.020)	(0.052)
Other	0.039	0.026	-0.068	0.176
	(0.008)***	(0.015)*	(0.014)***	(0.036)***
Observations	92262	82588	84967	36197
R-squared	0.21	0.10	0.09	0.44

Robust standard errors in parenthesis, regressions control for country fixed effects
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 5
Family Ties and the Role of the Government

	(1) Extensive welfare (lower number) or people responsibility
Weak family ties	-0.021
	(0.012)*
Male	0.043
	(0.023)*
Primary	-0.023
	(0.035)
Secondary	-0.022
	(0.032)
Age	0.015
	(0.005)***
Age squared	-0.000
	(0.000)***
Catholic	0.043
	(0.042)
Protestant	0.003
	(0.060)
Orthodox	0.188
	(0.068)***
Jews	-0.081
	(0.234)
Muslim	-0.025
	(0.057)
Hindu	-0.096
	(0.123)
Buddhist	0.110
	(0.056)**
Other	0.116
	(0.054)**
Married	-0.038
	(0.042)
Single	0.025
	(0.052)
Observations	15253
R-squared	0.11

Robust standard errors in parenthesis, regressions control for country fixed effects
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 6
Family Ties, Trust and Inward Looking Attitudes

	(1) Trust	(2) New ideas are better than old ones
Weak Ties	0.004	0.064
	(0.001)***	(0.014)***
Male	0.013	0.139
	(0.003)***	(0.028)***
Primary education	-0.093	-0.064
	(0.004)***	(0.040)
Secondary education	-0.068	0.043
	(0.004)***	(0.035)
Age	0.002	-0.029
	(0.000)***	(0.005)***
Age squared	-0.000	0.000
	(0.000)***	(0.000)**
Catholic	0.002	0.004
	(0.006)	(0.049)
Protestant	0.017	-0.055
	(0.008)**	(0.056)
Orthodox	-0.014	-0.128
	(0.011)	(0.116)
Jews	0.049	0.058
	(0.024)**	(0.169)
Muslim	0.037	0.048
	(0.009)***	(0.097)
Hindu	0.027	0.024
	(0.016)*	(0.132)
Buddhist	0.012	0.399
	(0.014)	(0.162)**
Other	0.013	-0.064
	(0.007)*	(0.063)
Observations	89314	37033
R-squared	0.10	0.18

Robust standard errors in parenthesis, regressions control for country fixed effects
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 7
Family Ties, Happiness and Life Satisfaction

	(1)	(2)
	Happiness	Life Satisfaction
Weak ties	-0.050	-0.122
	(0.002)***	(0.008)***
Male	-0.036	-0.093
	(0.005)***	(0.016)***
Primary	-0.145	-0.519
	(0.007)***	(0.022)***
Secondary	-0.044	-0.260
	(0.006)***	(0.020)***
Employed	-0.001	0.038
	(0.006)	(0.020)*
Unem	-0.146	-0.618
	(0.010)***	(0.033)***
Age	-0.016	-0.056
	(0.001)***	(0.003)***
Age squared	0.000	0.001
	(0.000)***	(0.000)***
Married	0.277	0.652
	(0.008)***	(0.027)***
Single	0.125	0.347
	(0.011)***	(0.034)***
Catholic	0.064	0.141
	(0.010)***	(0.033)***
Protestant	0.099	0.347
	(0.012)***	(0.038)***
Orthodox	0.032	0.008
	(0.018)*	(0.065)
Jews	-0.031	0.099
	(0.039)	(0.123)
Muslim	0.037	0.123
	(0.015)**	(0.053)**
Hindu	0.053	0.268
	(0.028)*	(0.085)***
Buddhist	0.019	0.184
	(0.020)	(0.067)***
Other	0.057	0.106
	(0.012)***	(0.039)***
Observations	88531	89317
R-squared	0.17	0.23

Robust standard errors in parenthesis, regressions control for country fixed effects
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 8
Family Ties and Youth Labor Force Participation
Second Generation Immigrants, 15-29 years old

	(1) Youth LFP	(2) Youth LFP	(3) Youth LFP	(4) Youth LFP	(5) Youth LFP	(6) Youth LFP	(7) Youth LFP	(8) Youth LFP (no Mexican)
Weak Family Ties	0.100	0.092	0.084	0.091	0.082	0.083	0.091	0.091
	(0.021)***	(0.022)***	(0.024)***	(0.023)***	(0.027)***	(0.027)***	(0.024)***	(0.025)***
Age	0.424	0.404	0.410	0.408	0.403	0.403	0.403	0.331
	(0.034)***	(0.032)***	(0.029)***	(0.033)***	(0.033)***	(0.033)***	(0.033)***	(0.025)***
Age squared	-0.008	-0.008	-0.008	-0.008	-0.008	-0.008	-0.008	-0.006
	(0.001)***	(0.001)***	(0.001)***	(0.001)***	(0.001)***	(0.001)***	(0.001)***	(0.001)***
Female	-0.078	-0.084	-0.080	-0.085	-0.082	-0.082	-0.082	-0.058
	(0.013)***	(0.013)***	(0.012)***	(0.012)***	(0.013)***	(0.013)***	(0.013)***	(0.012)***
Up to 12 years of school.		-0.093	-0.066	-0.095	-0.089	-0.089	-0.091	-0.098
		(0.026)***	(0.025)***	(0.022)***	(0.027)***	(0.027)***	(0.026)***	(0.030)***
Some college		-0.030	-0.016	-0.037	-0.029	-0.029	-0.029	-0.048
		(0.028)	(0.028)	(0.027)	(0.028)	(0.028)	(0.028)	(0.025)*
Married		0.023	0.028	0.024				
		(0.015)	(0.015)*	(0.015)*				
Divorced		0.054	0.065	0.061				
		(0.023)**	(0.022)***	(0.021)***				
Real household income			0.000	0.000				
			(0.000)***	(0.000)***				
Ethnic Human Capital				-0.021				
				(0.008)***				
Youth LFP 1980 original country							0.000	
							(0.002)	
Youth LFP 1990 original country						0.001		
						(0.002)		
Youth LFP 2000 original country					0.001			
					(0.002)			
Observations	22831	22831	22831	22166	22675	22675	22675	11541

Marginal Effects From Probit Regressions. Standard errors are clustered at the country of origin level and control for state fixed effects

Table 9
Family Ties and Female Labor Force Participation
Second Generation Immigrants

	(1) Female LFP	(2) Female LFP	(3) Female LFP	(4) Female LFP	(5) Female LFP	(6) Female LFP	(7) Female LFP (no Mexicans)
Weak Family Ties	0.045	0.015	0.010	0.017	0.021	0.021	0.023
	(0.015)***	(0.015)	(0.017)	(0.016)	(0.017)	(0.018)	(0.018)
Age	0.071	0.062	0.062	0.062	0.062	0.062	0.056
	(0.005)***	(0.003)***	(0.003)***	(0.003)***	(0.003)***	(0.003)***	(0.003)***
Age squared	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Up to 12 years of school		-0.199	-0.171	-0.178	-0.201	-0.201	-0.184
		(0.014)***	(0.012)***	(0.014)***	(0.016)***	(0.016)***	(0.013)***
Some College		-0.034	-0.015	-0.020	-0.036	-0.036	-0.052
		(0.017)**	(0.019)	(0.019)	(0.018)**	(0.018)**	(0.016)***
Married		-0.058	-0.068	-0.071	-0.058	-0.058	-0.081
		(0.019)***	(0.020)***	(0.020)***	(0.019)***	(0.019)***	(0.011)***
Divorced		0.064	0.073	0.070	0.064	0.064	0.043
		(0.014)***	(0.015)***	(0.016)***	(0.014)***	(0.014)***	(0.015)***
Real hous. Income			0.000	0.000			
			(0.000)***	(0.000)***			
Ethnic Human Capital				-0.018			
				(0.008)**			
Female LFP 1990						-0.001	
						(0.001)	
Female LFP 2000					-0.001		
					(0.001)		
Observations	26547	26547	26547	26091	26459	26459	17011

Marginal Effects from Probit Regressions. Standard errors are clustered at the country of origin level and control for state fixed effects
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 10
College Education and Family Ties
(Dependent Variables, Dummy for Having at Least Some Years of College)

	(1) Some or completed college	(2) Some or completed college	(3) Some or completed college	(4) Some or completed college	(5) Some or completed college (no Mexican)
Weak Family Ties	0.095	0.085	0.073	0.120	-0.008
	(0.068)	(0.058)	(0.036)**	(0.063)*	(0.043)
Female	0.058	0.062	0.064	0.058	0.064
	(0.005)***	(0.005)***	(0.005)***	(0.005)***	(0.007)***
Female*	0.039	0.037	0.028	0.035	0.028
(weak family ties)	(0.013)***	(0.012)***	(0.012)**	(0.013)**	(0.012)**
Age	0.317	0.315	0.310	0.303	0.428
	(0.054)***	(0.056)***	(0.054)***	(0.053)***	(0.025)***
Age squared	-0.006	-0.006	-0.006	-0.006	-0.008
	(0.001)***	(0.001)***	(0.001)***	(0.001)***	(0.001)***
Real Hous. Income		0.000	0.000		
		(0.000)***	(0.000)***		
Ethnic Human Capital			0.069		
			(0.009)***		
Girls to Boys ratio in Tertiary Education				0.124	
				(0.123)	
Observations	22831	22831	22166	20602	11541
R-squared	0.30	0.32	0.33	0.30	0.40

Standard errors are clustered at the country level, the regressions control for state fixed effects
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 11
Family Ties and Geographical Mobility
15-29 Years Old Second Generation Immigrants

	(1) Geographical Mobility	(2) Geographical Mobility	(3) Geographical Mobility	(4) Geographical Mobility	(5) Geographical Mobility	(6) Geographical Mobility (no Mexicans)
Weak family ties	0.020	0.016	0.028	0.029	0.030	0.017
	(0.005)***	(0.005)***	(0.006)***	(0.006)***	(0.006)***	(0.006)***
Age	0.027	0.031	0.040	0.033	0.035	0.038
	(0.004)***	(0.004)***	(0.011)***	(0.009)***	(0.009)***	(0.007)***
Age squared	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Female	0.001	-0.001	-0.005	-0.005	-0.007	0.004
	(0.003)	(0.003)	(0.006)	(0.006)	(0.006)	(0.006)
Up to 12 years of school		-0.041	-0.046	-0.049	-0.054	-0.038
		(0.006)***	(0.005)***	(0.005)***	(0.006)***	(0.008)***
Some College		-0.040	-0.050	-0.049	-0.053	-0.044
		(0.003)***	(0.005)***	(0.004)***	(0.005)***	(0.006)***
Married		0.019	0.011	0.009	0.010	
		(0.004)***	(0.006)*	(0.006)	(0.006)	
Divorced		0.026	0.033	0.027	0.027	
		(0.009)***	(0.010)***	(0.010)***	(0.010)***	
Unemployed			0.031	0.027	0.027	
			(0.007)***	(0.007)***	(0.007)***	
Real hous. income				-0.000	-0.000	
				(0.000)***	(0.000)***	
Ethnic Human Capital				0.002		
				(0.002)		
Observations	21253	21253	11987	11710	11987	10659

Marginal Effects from Probit Regressions. Standard Errors are clustered at the country of origin level, the regressions control for state fixed effects
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 12
Living at Home with Their Parents
Second Generation Immigrants
18-33 Years Old

	(1) Living at Home	(2) Living at Home	(3) Living at Home	(4) Living at Home (no Mexicans)
Weak Family Ties	-0.053	-0.062	-0.062	-0.079
	(0.029)*	(0.026)**	(0.026)**	(0.022)***
Age	-0.200	-0.193	-0.193	-0.210
	(0.014)***	(0.015)***	(0.015)***	(0.022)***
Age squared	0.003	0.003	0.003	0.003
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Female	-0.111	-0.100	-0.099	-0.101
	(0.008)***	(0.009)***	(0.009)***	(0.013)***
Up to 12 years of school.	-0.061	0.023	0.015	-0.053
	(0.015)***	(0.017)	(0.015)	(0.017)***
Some College	0.037	0.089	0.080	0.036
	(0.018)**	(0.018)***	(0.016)***	(0.023)
Real Hous. Income		0.000	0.000	
		(0.000)***	(0.000)***	
Ethnic Human Capital			0.001	
			(0.010)	
Observations	19664	19664	19186	10642

Marginal Effects from Probit Regressions. Standard errors are clustered at the country level,
Regressions control for state fixed effects
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 13
Family Ties and Family size
Second Generation Immigrants

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Family size	Family size	Family size	Family size	Family size	Family size	Family size	Family size
Weak Family Ties	-0.325	-0.275	-0.305	-0.242	-0.230	-0.330	-0.280	-0.154
	(0.076)***	(0.059)***	(0.070)***	(0.072)***	(0.133)	(0.172)*	(0.161)	(0.065)**
Age	-0.061	-0.051	-0.058	-0.061	-0.063	-0.055	-0.064	-0.038
	(0.009)***	(0.008)***	(0.009)***	(0.008)***	(0.006)***	(0.009)***	(0.004)***	(0.005)***
Age squared	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(0.000)***	(0.000)**	(0.000)***	(0.000)***	(0.000)***	(0.000)*	(0.000)***	(0.000)
Up to 12 years of school.		0.335	0.564	0.493	0.576	0.445	0.593	0.208
		(0.086)***	(0.094)***	(0.080)***	(0.097)***	(0.112)***	(0.104)***	(0.053)***
Some college		0.097	0.261	0.223	0.222	0.129	0.224	0.078
		(0.039)**	(0.040)***	(0.030)***	(0.074)***	(0.069)*	(0.087)**	(0.036)**
Ethnic Human Capital				-0.194				
				(0.032)***				
Fam. size 1980 orig. country							0.020	
							(0.050)	
Fam. size 1970 orig. country						-0.031		
						(0.093)		
Fam. size 1990 orig. country					0.067			
					(0.059)			
Hous. Real income			0.000	0.000				
			(0.000)***	(0.000)***				
Observations	80964	80964	80964		31789	42467	29863	60419
R-squared	0.32	0.33	0.36		0.28	0.33	0.29	0.28

Standard errors are clustered at the country of origin level, the regressions control for state fixed effects
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 14
Family Ties and Fertility (Number of Children ever Born)
First Generation Immigrants, Married Women 15-54 Years Old

	(1) Fertility	(2) Fertility	(3) Fertility (no Mexicans)
Weak Family Ties	-0.778	-0.546	-0.510
	(0.177)***	(0.231)**	(0.085)***
Age_wife	0.155	0.156	0.142
	(0.017)***	(0.017)***	(0.023)***
Age squared_wife	-0.001	-0.001	-0.001
	(0.000)***	(0.000)***	(0.000)***
Up to 12_ wife	0.702	0.732	0.518
	(0.094)***	(0.100)***	(0.049)***
Some college_wife	0.232	0.255	0.212
	(0.039)***	(0.044)***	(0.018)***
Age_husband	0.115	0.115	0.095
	(0.018)***	(0.019)***	(0.017)***
Age squared_husband	-0.001	-0.001	-0.001
	(0.000)***	(0.000)***	(0.000)***
Up to 12_husband	0.506	0.539	0.226
	(0.113)***	(0.110)***	(0.045)***
Some College_husband	0.044	0.065	0.046
	(0.037)	(0.043)	(0.025)*
Fertility 1990		0.104	
		(0.064)	
Observations	93261	89429	60898
R-squared	0.28	0.28	0.21

Standard errors are clustered at the country level, the regressions control for state fixed effects and years of immigration dummies

*significant at 10%; ** significant at 5%; *** significant at 1%

Table 15
Instrumental variable regressions
Instrumenting Family Ties with Language Pronoun Drop

	(1) Youth LFP	(2) Women LFP	(3) Geographical mobility	(4) Fam. size	(5) Some or completed college	(6) Living at home
Weak family ties	0.138	0.028	0.042	-0.399	0.033	-0.117
	(0.054)**	(0.033)	(0.012)***	(0.211)*	(0.079)	(0.039)***
Age	0.355	0.057	0.028	-0.058	0.310	-0.202
	(0.019)***	(0.005)***	(0.004)***	(0.009)***	(0.055)***	(0.011)***
Age squared	-0.007	-0.001	-0.001	0.000	-0.006	0.003
	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.001)***	(0.000)***
Up to 12 years of school.	-0.023	-0.149	-0.060	0.550		-0.005
	(0.015)	(0.011)***	(0.010)***	(0.101)***		(0.013)
Some college	0.018	0.004	-0.071	0.249		0.053
	(0.017)	(0.017)	(0.009)***	(0.046)***		(0.013)***
Real hous. income	0.000	0.000	-0.000	0.000	0.000	0.000
	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Female	-0.056		-0.001	-0.077	0.070	-0.076
	(0.009)***		(0.003)	(0.034)**	(0.007)***	(0.010)***
Female*(weak family ties)					0.081	
					(0.032)**	
Observations	22329	26048	20782	79242	22329	19313

Standard errors are clustered at the country level, regressions control for state fixed effects
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 16
Fertility
Instrumenting Family Ties with Language Pronoun Drop

	(1)
	Fertility
Weak Family Ties	-.9417
	(.3901)**
Age_wife	.1584
	(.0181)***
Age squared_wife	-.0013
	(.000)***
Up to 12_ wife	.7048
	(.1143)***
Some college_wife	.2532
	(.0592)***
Age_husband	.1165***
	(.0198)
Age squared_husband	-.0011***
	(.0002)
Up to 12_husband	.4800***
	(.1098)
Some College_husband	.0253
	(.0516)
Observations	88265
R-squared	.28

Standard errors are clustered at the country level, regressions control for state fixed effects and years of immigration dummies

Table 17
IV Regressions
First Stage Coefficients

	Youth LFP	Migration	Female LFP	Family Size	Living at Home	Fertility
Pronoun	.535***	.539***	.397***	.314***	.507***	.388***
Drop	(.0055)	(.0057)	(.0048)	(.0026)	(.0058)	(.0036)

Figure 1a
Weakness of Family Ties, whole sample

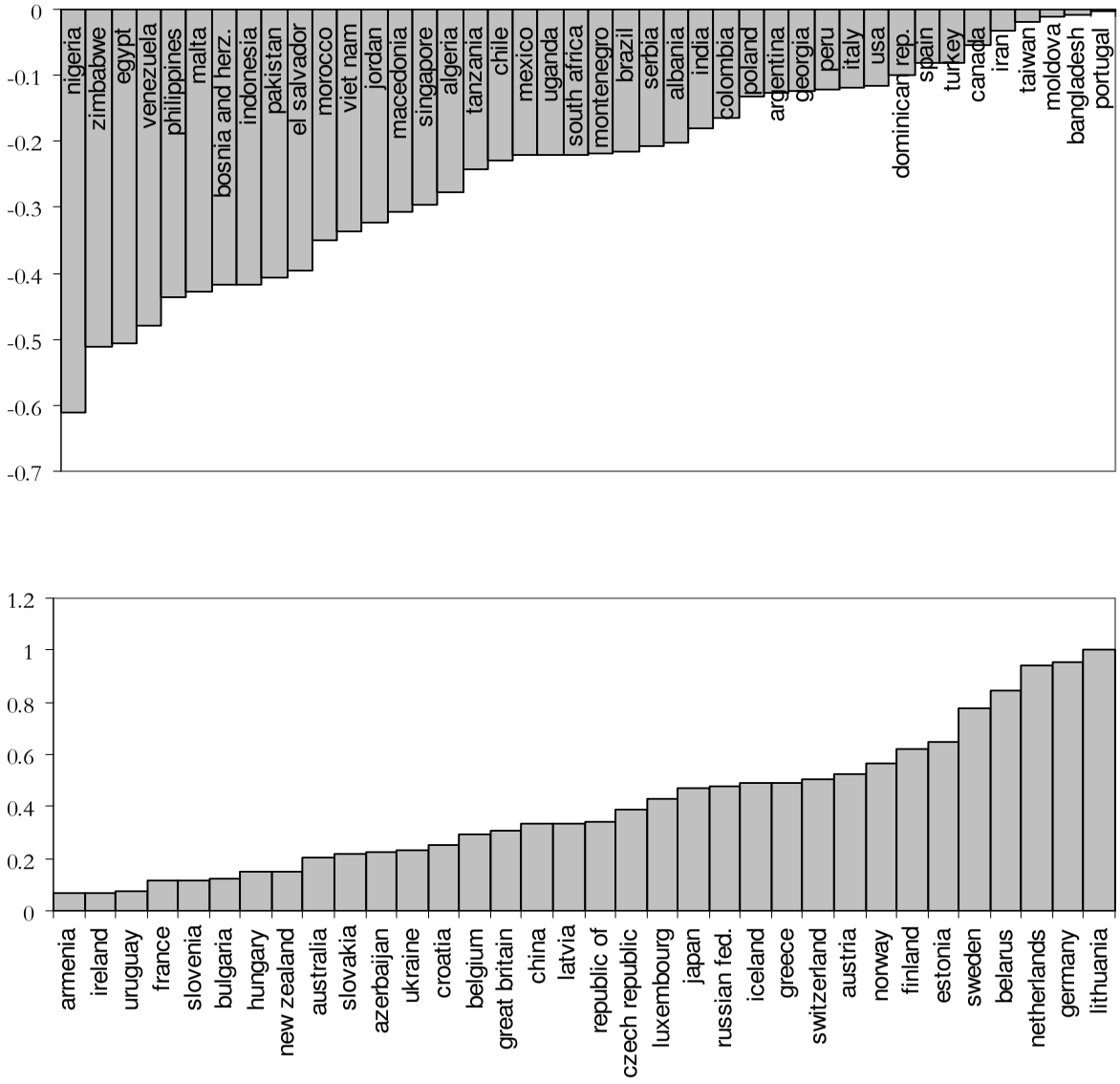


Figure 1b
Weakness of Family Ties, OECD countries

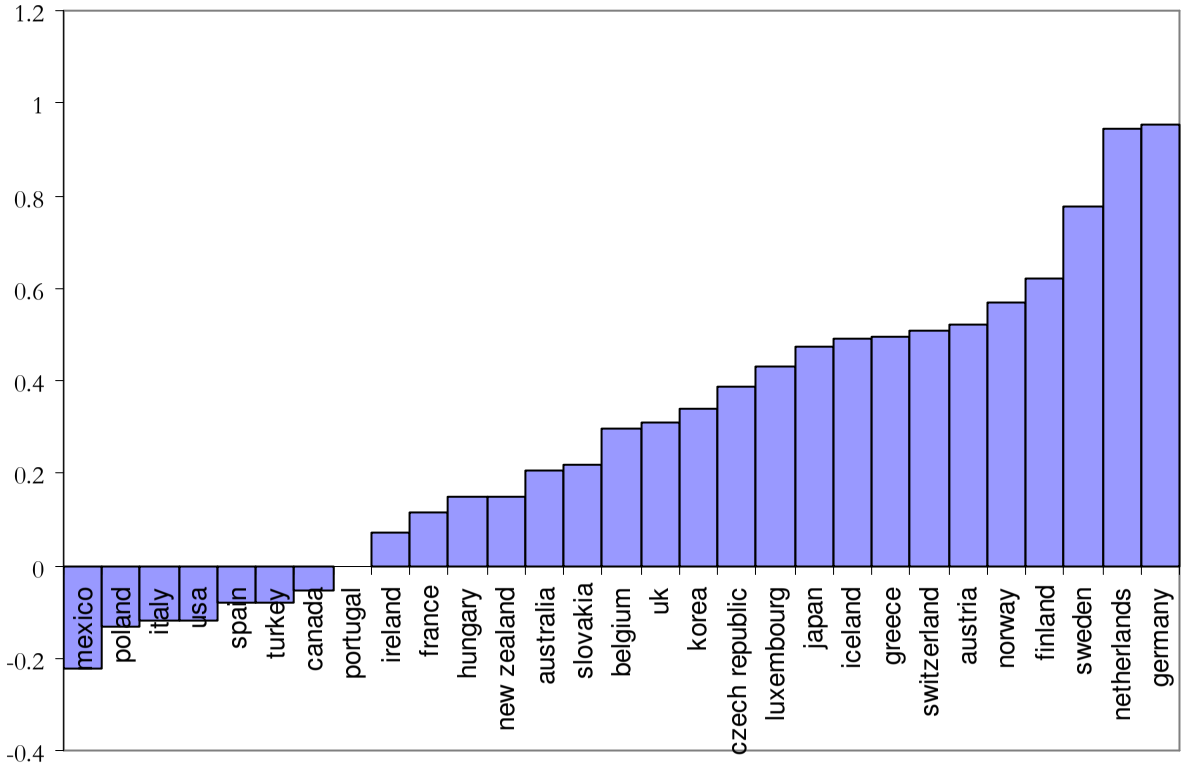
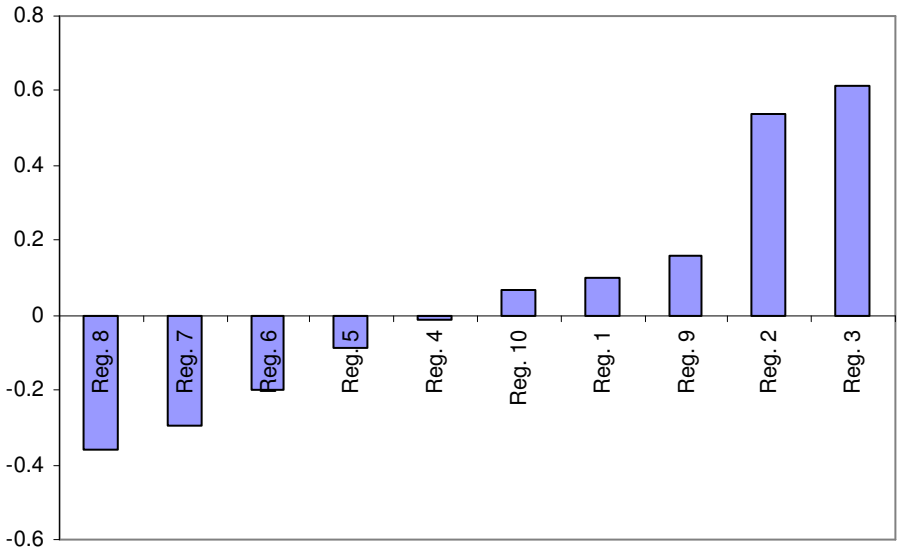


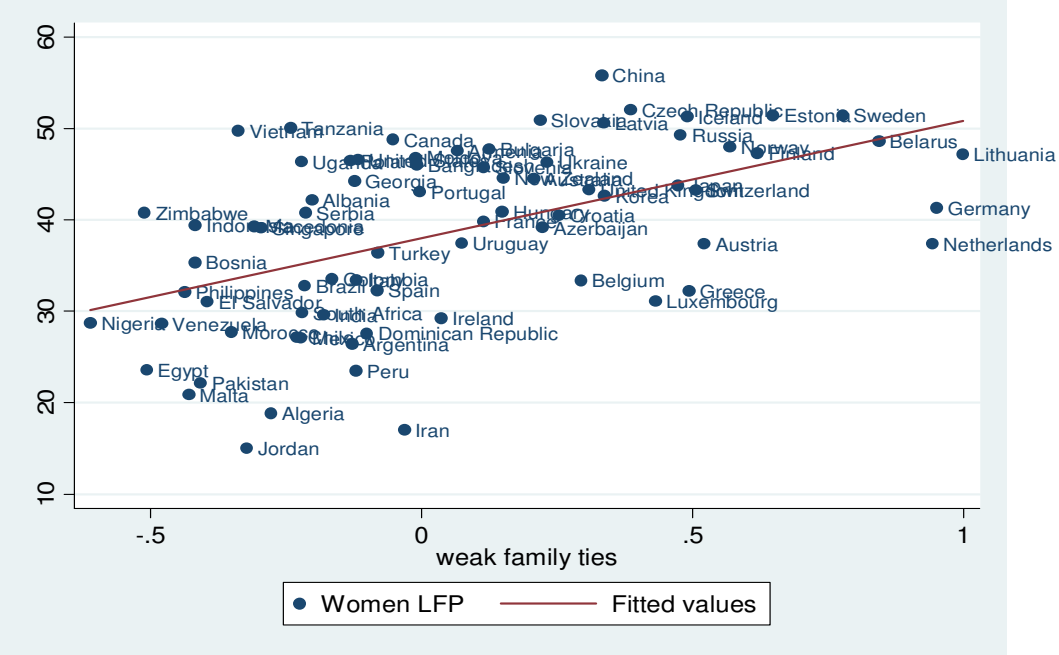
Figure 1c
Weakness of Family Ties, by Region



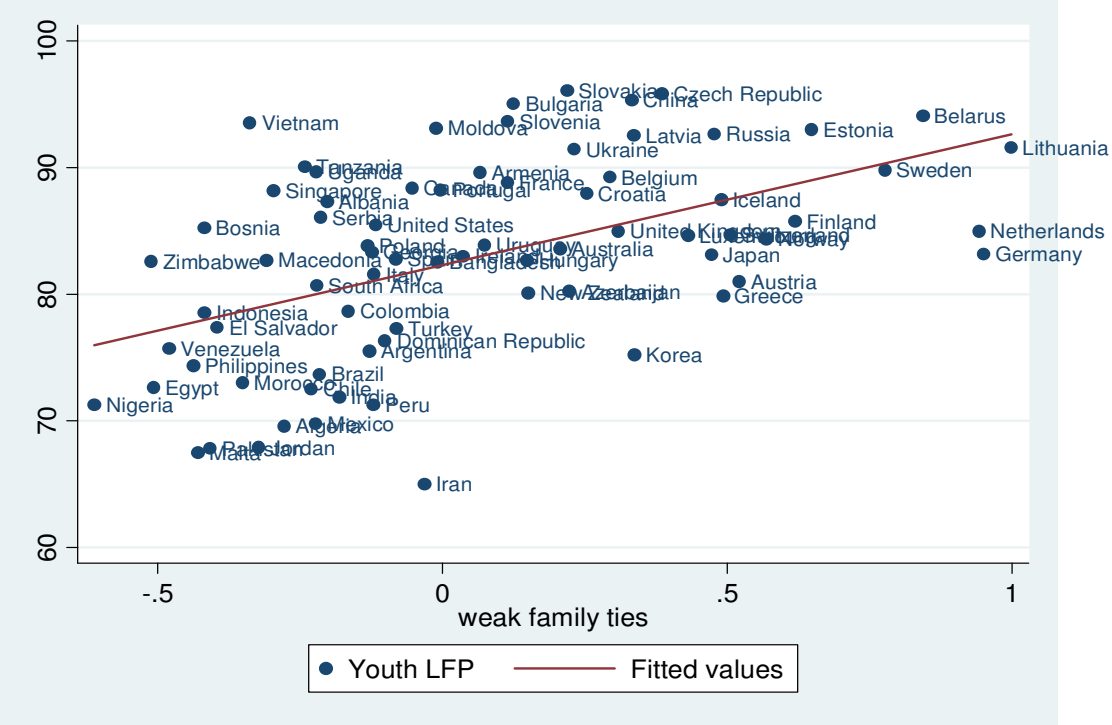
Region 1	US, UK, Canada, Australia, New Zealand
Region 2	Austria, Belgium, France, Germany, Luxembourg, Netherlands, Switzerland
Region 3	Norway, Sweden, Finland, Iceland
Region 4	Ireland, Italy, Greece, Malta, Portugal, Spain
Region 5	Japan, China, Bangladesh, Taiwan, India, Indonesia, Rep. of Korea, Pakistan, Philippines, Singapore, Vietnam
Region 6	Argentina, Brazil, Chile, Colombia, Dominican Rep., El Salvador, Mexico, Peru, Uruguay, Venezuela
Region 7	Iran, Jordan, Egypt, Algeria, Morocco
Region 8	South africa, Nigeria, Zimbabwe, Tanzania, Uganda
Region 9	Belarus, Albania, Georgia, Bulgaria, Moldova, Russian Fed., Ukraine, Czech Republic, Slovakia, Estonia, Latvia, Hungary, Lithuania, Croatia, Slovenia, Macedonia Poland, Montenegro, Serbia, Bosnia and Herzegovina,
Region 10	Turkey, Armenia, Azerbaijan

Figure 2

a) Family Ties and Female Labor Force Participation



b) Family Ties and Youth Labor Force Participation



c) Home Production and Family Ties

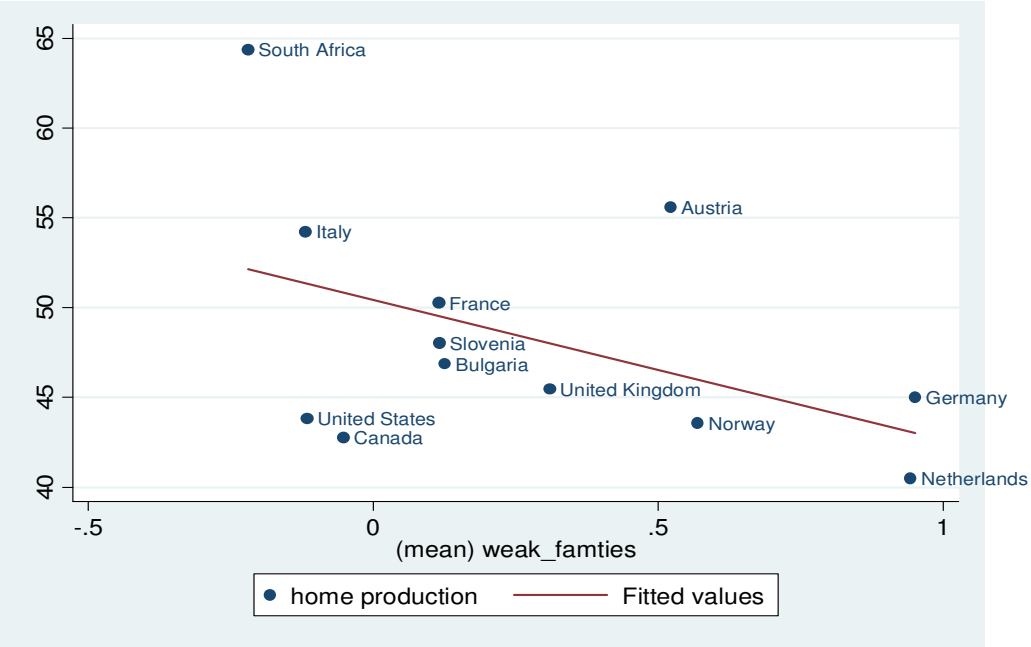
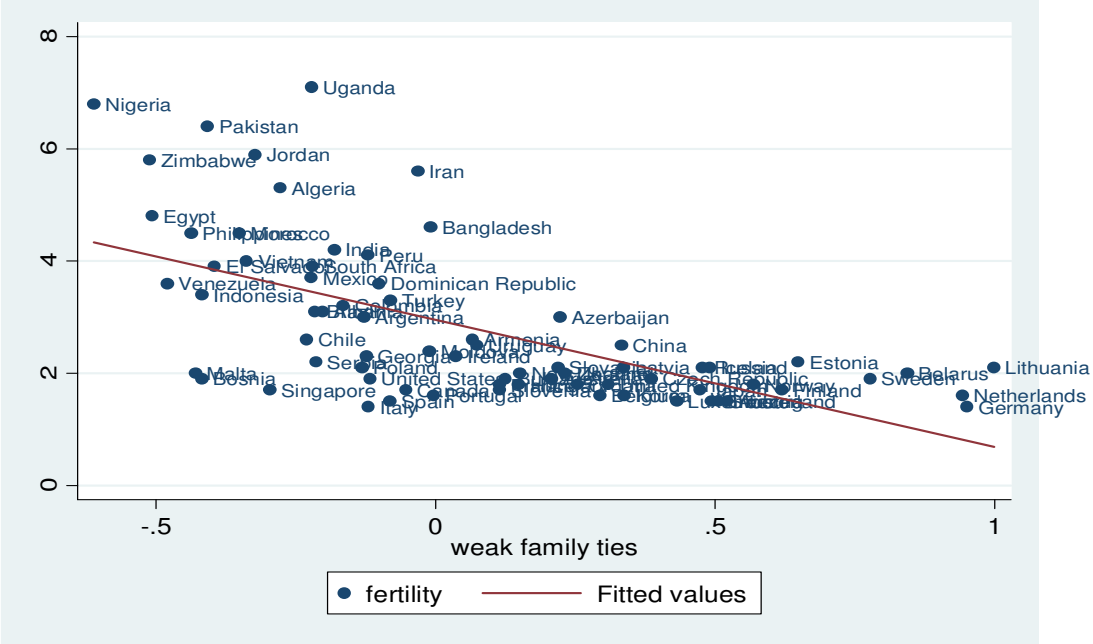
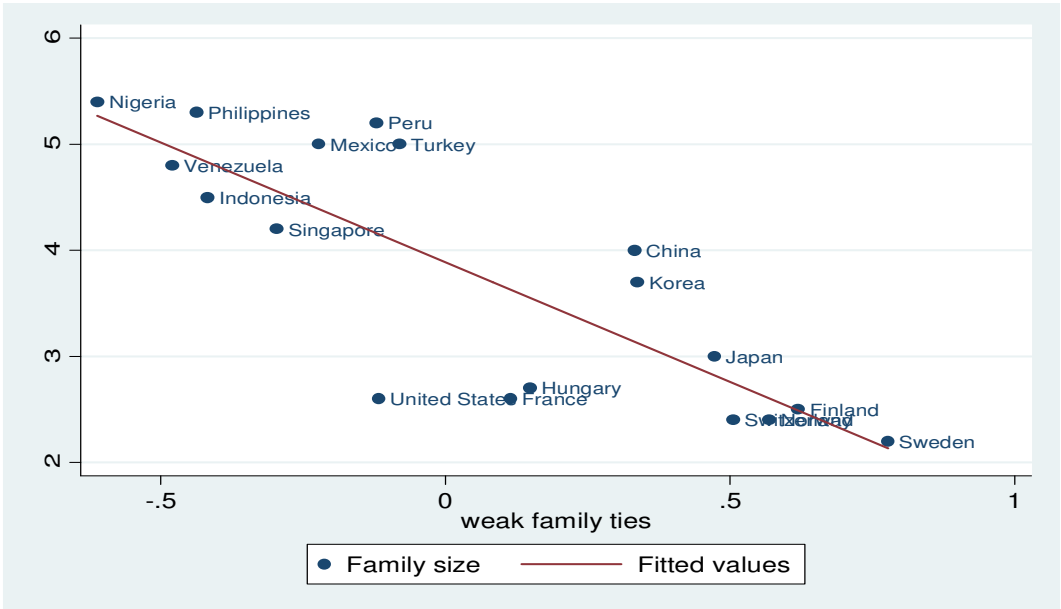


Figure 3
Family Ties, Fertility, Family Size and the Role of Women in Society

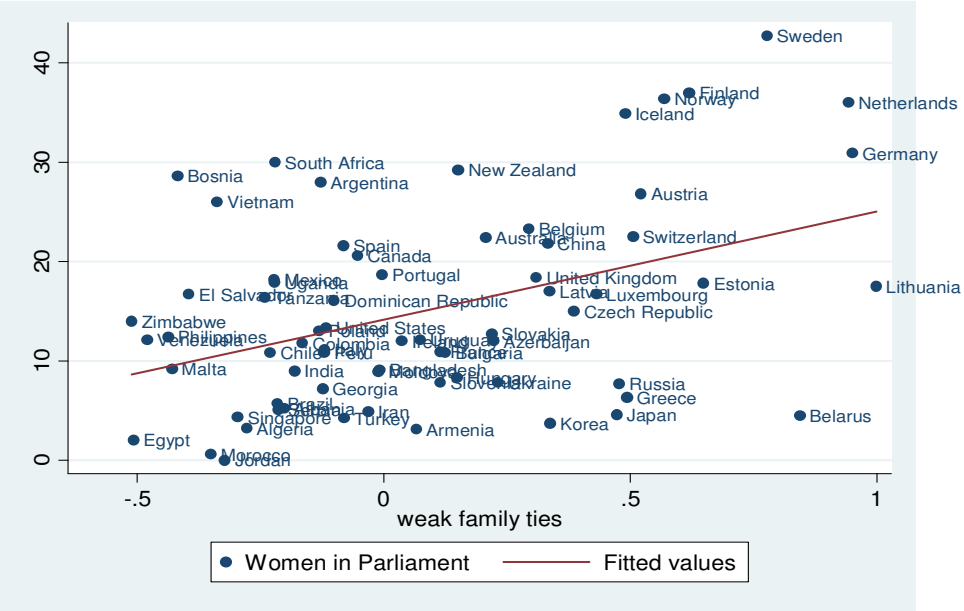
a) Fertility



b) Family size



c) Women in Parliament



Appendix A

Table A1
World Values Survey- Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Family Important	116914	1.123	0.383	1	4
Respect Parents	110068	1.169	0.375	1	2
Parents Responsibility	110594	1.193	0.395	1	2
Family Ties (sum)	106762	3.461	0.724	3	8
Family ties (PC)	106762	0.000	1.118	-0.72	6.48
Trust	114203	0.269	0.443	0	1
Happiness	112832	3.041	0.749	1	4
Life Satisfaction	117264	6.525	2.580	1	10
When job scarce	118519	0.357	0.479	0	1
Working mom	104888	2.981	0.852	1	4
Woman housewife	101349	2.806	0.883	1	4
People/Govern. Responsibility	111898	5.875	3.022	1	10
Private Ownership	90468	5.086	2.935	1	10
Old/New Ideas	73735	1.950	0.536	1	3
Competition	89379	3.654	2.551	1	10
Age	118224	40.981	16.271	15	101
Employed	116280	0.518	0.500	0	1
Unemployed	116280	0.093	0.290	0	1
Out of Labor Force	116280	0.352	0.478	0	1
Male	118519	0.480	0.500	0	1
Female Labor Force Particip.	53754	0.574	0.4944	0	1
Youth Labor Force Particip.	34567	0.653	0.4760	0	1
Fertility	44049	1.795	1.630	0	8
Primary Education	118519	0.369	0.483	0	1
Secondary Education	118519	0.418	0.493	0	1
College and more	118519	0.204	0.403	0	1
Catholic	103620	0.353	0.478	0	1
Protestant	103620	0.137	0.343	0	1
Orthodox	103620	0.089	0.285	0	1
Jews	103620	0.014	0.117	0	1
Muslim	103620	0.191	0.393	0	1
Hindu	103620	0.019	0.136	0	1
Buddhist	103620	0.015	0.122	0	1
Other Religions	103620	0.088	0.283	0	1
No Religion	103620	0.094	0.292	0	1

Table A2
Multinational Time Use Study – Summary Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Age	145086	32.64	9.70	15	49
Home production	145086	48.67	77.23	0	900
Employed	133950	0.69	0.46	0	1
Secondary education	132588	0.34	0.47	0	1
Tertiary education	132588	0.29	0.45	0	1
Female	145086	0.53	0.50	0	1

Countries included in the survey are: Canada, Denmark, France, Netherlands, Norway, United Kingdom, United States, Italy, Germany, Austria, Bulgaria, South Africa

Table A3
Second Generation Immigrants
Current Population Survey 1994-2005
Descriptive Statistics

CPS variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Family Size	80964	2.909	1.719	1	16
Youth Lab. Force Par.	22831	.5915	.4915	0	1
Female Lab. Force Par.	26547	.6661	.4714	0	1
Stay home	19664	0.417	0.493	0	1
Geographical mobility	21268	0.062	0.241	0	1
Going to college	22831	0.362	0.481	0	1

Country of origin variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Fam. size 1990	14290	4.877	0.520	2.2	5.4
Fam. size 1980	13551	5.231	0.467	2.3	6.6
Fam. size 1970	15656	4.824	0.679	2.6	6.6
Girls/Boys ratio 1990	20602	0.830	0.231	0.2	1.42
Girls/Boys ratio 2000	18534	1.013	0.186	0.54	1.83
Women Parl. 1990	22325	11.089	3.919	0	38.4
Women Parl. 2000	22344	16.883	5.479	0	42.7
Youth LFP 1980	22675	69.550	7.442	59.27	95.72
Youth LFP 1990	22675	71.634	8.110	58.79	96.05
Youth LFP 2000	22675	75.142	7.254	64.96	96.1

Table A4
First Generation Immigrants
Census 1990
Descriptive Statistics

Women all

Variable	Obs	Mean	Std. Dev.	Min	Max
Number of children ever born	240384	1.726	1.757	0	12
Up to 12 years of college	240384	0.602	0.490	0	1
Some College	240384	0.215	0.411	0	1
Employed	236691	0.577	0.494	0	1
Unemployed	236691	0.056	0.231	0	1
OLF	236691	0.367	0.482	0	1
Married	240384	0.636	0.481	0	1
Divorced	240384	0.093	0.291	0	1
Fertility country of origin 1990	233035	3.147	1.144	1.4	7.1

Married Women

Variable	Obs	Mean	Std. Dev.	Min	Max
Children ever born	94625	2.375	1.725	0	12
Wife-Age	94625	37.012	8.808	15	54
Wife-Up to 12 years of school	94625	0.624	0.484	0	1
Wife-Some College	94625	0.168	0.374	0	1
Husband-Age	94625	40.646	10.065	15	90
Husband-Up to 12 years of school	94625	0.566	0.496	0	1
Husband-Some college	94625	0.159	0.365	0	1
Fertility country of origin 1990	90806	3.347	1.087	1.4	7.1

Table A5
List of Countries with and without pronoun drop
(sample of second generation immigrants)

Languages with Pronoun Drop	Argentina, Brazil, Chile, China, Colombia, Dominican Republic, Egypt, El Salvador, Greece, India, Indonesia, Iran, Italy, Japan, Rep. Korea, Macedonia, Mexico, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Russia, Singapore, Spain, Taiwan, Turkey, Uruguay, Venezuela
Languages without Pronoun Drop	Australia, Austria, Belgium, Canada, Czech Republic, Finland, France, Germany, Hungary, Ireland, Netherlands, New Zealand, Norway, South Africa, Sweden, Switzerland*, United Kingdom

*We include Switzerland in the non-pronoun drop category as two of the two official languages (French and German) belong to that category. We check the robustness of our estimates by excluding Switzerland from our sample.