I Z A Institute
of Labor Economics
Initiated by Deutsche Post Foundation

DISCUSSION PAPER SERIES

IZA DP No. 14550

Gender Norms and Intimate Partner Violence

Libertad González
Núria Rodríguez-Planas

JULY 2021

I Z A Institute
of Labor Economics

Initiated by Deutsche Post Foundation

DISCUSSION PAPER SERIES

IZA DP No. 14550

Gender Norms and Intimate Partner Violence

Libertad González
Universitat Pompeu Fabra and Barcelona GSE and IZA

Núria Rodríguez-Planas
City University of New York (CUNY), Queens College and IZA

JULY 2021

IZA – Institute of Labor Economics

Schaumburg-Lippe-Straße 5–9
53113 Bonn, Germany

Phone: +49-228-3894-0
Email: publications@iza.org

www.iza.org

ABSTRACT

Gender Norms and Intimate Partner Violence*

We study the relevance of gender norms in accounting for the incidence and intensity of domestic violence. We use data for 28 European countries from the 2012 EU survey on violence against women, and focus on first- and second-generation immigrant women. We find that, after controlling for country-of-residence fixed effects, as well as demographic characteristics and other source-country variables, higher gender equality in the country of ancestry is significantly associated with a lower risk of victimization in the host country. This suggests that gender norms may play an important role in explaining the incidence of intimate partner violence.

JEL Classification: I1, Z1

Keywords: domestic violence, gender, social norms, immigrants, epidemiological approach

Corresponding author:
Núria Rodríguez-Planas
Queens College - CUNY
Economics Department
Powdermaker Hall
65-30 Kissena Blvd.
Queens, New York 11367
USA

E-mail: nuria.rodriguezplanas@qc.cuny.edu

* We thank the European Union Agency for Fundamental Rights for making the dataset European FRA survey on violence against women available to us. We thank Raquel Fernández, Andreas Kotsadam, Anna Sanz-de-Galdeano, Paul Vertier and participants at the 7th Annual Conference on "Immigration in OECD Countries", the 2018 IZA World Labor conference in Berlin, and the 2019 Simposio of the Spanish Economic Association for excellent comments on the paper. We thank Sofía Sierra for excellent research assistance.

"*Violence against women is not a small problem that only occurs in some pockets of society, but rather is a global public health problem of epidemic proportions, requiring urgent action. As recently endorsed by the Commission on the Status of Women, it is time for the world to take action: a life free of violence is a basic human right, one that every woman, man, and child deserves*."
World Health Organization, 2013.

1. Introduction

In Europe, one in five women report having been victims of physical and/or sexual violence at some point in their lives, and three fourths report that violence was perpetrated by an intimate partner or ex-partner. The incidence of reported intimate partner violence during the previous 12 months varies widely across EU countries, from 3% in Slovenia to 33% in Belgium or Denmark (FRA 2015), and the disparity widens when one looks at other continents, from 1% in Singapore to 40% in Ethiopia (United Nations 2015). On top of the well-documented injuries and health problems that result directly from violence against women[1], psychological and emotional wounds may well generate medium- to long-term problems affecting women's employment (Browne *et al*. 1999, Lloyd and Taluc 1999) and well-being, with deeper consequences for their families—including their children's health and development—, and society as a whole (WHO 2002). Hence, understanding the determinants of intimate partner violence, a global public health problem, is of fundamental importance.

This paper studies whether traditional gender norms might be a relevant factor in explaining the incidence and intensity of intimate partner violence (IPV thereafter). Previous evidence suggests that men are more likely to sexually assault women (Heise 1998) or practice marital violence (O'Neil and Harway 1997) if they identify with traditional images of masculinity and male privilege. At the community level, men's use of violence against women is also correlated with patriarchal and "hyper-masculine" ideologies (Murnen, Wright, and

[1] Health outcomes include HIV infection, sexually transmitted infections, induced abortion, low birth weight, premature birth, growth restriction in utero, children small for gestational age, alcohol use, depression and suicide, injuries, and death from homicide (WHO 2013).

Kaluzny 2002). Men's and women's distinct traditional roles as breadwinners versus home-makers may put women in a position of dependency, making it harder for them to adopt economic or social sanctions against potentially abusive husbands (Choi and Ting 2008), or leave an abusive relationship (Tauchen, Witte and Long 1991, Vyas and Watts 2009). Moreover, in societies where violence against women is more common or where a substantial proportion of the population condones abuse, women's risk of experiencing, accepting, or rationalizing IPV may be higher (Heise 2011, Garcia-Moreno et al. 2005, WHO 2009). As societies change, with women's role moving outside of the household, and men and women converging in human capital investments, employment, and wages, women's empowerment increases, gender roles evolve, hegemonic masculine norms are challenged, and alternative forms of masculinity emerge (Lapsansky and Chatterjee 2013), making communities and individuals less likely to internalize social norms that justify abuse. To the extent that traditional gender norms are relevant for the incidence of IPV, policies aiming at transforming attitudes towards gender roles should be an important focus of prevention efforts.

To identify whether traditional gender norms have a causal effect on the risk of IPV, we face two main challenges: how to achieve causal identification (the identification strategy), and the measurement of both the outcome and key explanatory variables, namely IPV and traditional gender norms.

As stressed by Heise and Kotsadam (2015), one of the biggest challenges for studies exploring country- or state-level predictors of domestic violence is to find reliable and homogenous measures of intimate partner violence, as frequently different surveys are used for different countries that vary in terms of violence questions, methods, and ethical controls. We are able to circumvent this challenge by using the *2012 European Union Fundamental Rights Agency (FRA) household survey on violence against women*, which collects women's experiences of physical, sexual and psychological violence in 28 EU countries.

Our identification strategy (referred to in previous studies as the "epidemiological approach") draws from a recent literature that uses country-of-ancestry variation to identify the effect of "culture" on behavioral outcomes for first- and second-generation immigrants[2] (Antecol 2000 and 2001, Fernández and Fogli 2006 and 2009, Blau et al. 2013, Nollenberger, Rodríguez-Planas and Sevilla 2016, Rodríguez-Planas and Nollenberger 2018, Rodríguez-Planas and Sanz-de-Galdeano 2019).[3] In this literature, culture is defined as "*beliefs and preferences that vary systematically across groups of individuals separated by space (either geographic or social) or time*" (Fernández 2008). Because first- and second-generation immigrants live in the same host country, they share their host country's laws and institutions, but differ in their cultural background.

We exploit variation in measures of gender equality across countries of ancestry (as proxies for gender norms) to study the importance of ancestry culture regarding gender on the incidence and intensity of IPV among first- and second-generation women within the same country of residence, holding constant a battery of individual and partner controls, as well as other country-of-ancestry macro-level factors, that may affect partner violence for reasons unrelated to gender norms. Following Nollenberger, Rodríguez-Planas and Sevilla (2016), we proxy traditional gender norms in the source country with the *2009 World Economic Forum*'s gender gap index (GGI), which measures women's economic and political opportunities,

[2] First-generation immigrants are those who migrated to the host country. Second-generation immigrants are those who were born in the country their parents migrated to.

[3] Antecol (2000 and 2001) analyzes the relevance of ancestry culture for labor force participation and wages; Fernández and Fogli (2006 and 2009) and Blau et al. (2013) for female labor force participation and fertility; Nollenberger, Rodríguez-Planas and Sevilla (2016) and Rodríguez-Planas and Nollenberger (2018) for the math, science and reading gender gaps; and Rodríguez-Planas and Sanz-de-Galdeano (2019) on the smoking gender gap.

education, and well-being, relative to those of men.[4] Our findings are robust to using other measures of gender norms in the country of ancestry.

Operationally, we restrict our analysis to first- and second-generation immigrant women in the 2012 FRA survey, for whom we were able to access confidential information on the country of birth of their parents, allowing us to identify 41 different countries of ancestry. Using country of ancestry, we merged our individual-level survey responses with the GGI and other national-level statistics compiled from the United Nations, the OECD, and the World Bank.

Our dataset contains information on women's experiences of IPV, as well as many of her own and her partner's socio-demographic characteristics. It however lacks information on the partner's country of ancestry. It is likely that both a woman's and her partner's attitudes and beliefs influence the incidence of IPV.[5] Women's culture may be driving IPV via: (1) women's empowerment, making it easier for women to adopt economic or social sanctions against potentially abusive husbands; (2) communities' censure of abuse against women (especially within the domestic sphere), reducing women's risk of experiencing, accepting, or rationalizing IPV; or (3) abuse in childhood, as growing up in violent homes has been found to be directly related to becoming victim of IPV (Whitfield et al. 2003; Mandal and Hindin, 2015; Assaad et al., 2016).

[4] This is the same index used by Guiso et al. (2008) and Fryer and Levitt (2010) to proxy culture in ecological studies analyzing whether the math gender gap decreases with gender equality. Rodríguez-Planas and Nollenberger (2018) and Rodríguez-Planas and Sanz-de-Galdeano (2019) also use the country-of-ancestry GGI. Antecol (2000 and 2001) uses country-of-ancestry gender gaps in labor force participation and wages as proxies of gender norms; whereas Fernández and Fogli (2006 and 2009) and Blau et al. (2013) use country-of-ancestry female labor force participation and fertility.

[5] Hindin, Kishor and Ansara (2008) find that a man agreeing that wife beating is justified in one or more situations is a strong predictor of his wife being beaten in Bangladesh, Bolivia, Malawi, Rwanda and Zimbabwe. They find no association when women's attitudes about spousal violence are added to the model.

Given the high degree of marital homogamy in our population of interest, the woman's country of origin will proxy for both her and her partner's cultural background. According to different country studies that use administrative data, marital (or partner) homogamy based on place of origin or migrant background is quite high in Europe. In the Netherlands, Kalmijn, de Graaf, and Janssen (2005) estimate that 15% of Western European women, 31% of Southern European women, 82% of Moroccan women, and 96% of Turkish women are married to men from the same origin. Similarly high estimates are found for Moroccan and Turkish women in Belgium (Lievens 1998; Lodewyckx et al. 2006) and Germany (Milewski and Kulu 2014).[6] Milewski and Kulu (2014) also find that 78% of women from Mediterranean countries (including the former Yugoslavia, Greece, Italy, and Spain) are married to men from the same country. Çelikaksoy, Nekby and Rashid (2010) find that 39% of first- and second-generation female immigrants in Sweden in 2005 have a partner from the same country of origin or descent. Using 2012 Eurostat data,[7] we find that between one fifth and one third of foreign-born women are married to men from the same geographical area.

Our main findings show a clear negative association between the incidence of IPV among immigrant women and different measures of gender equality in their country of ancestry (Figure 1).[8] Women from less gender-equal countries are more likely to report having suffered IPV in their EU country of residence. The raw correlation coefficient is -0.27. In our baseline specification (column 2 in Table 2.1), we find that a one standard deviation increase in gender

[6] Lievens (1998) estimates that 98% of Turk women and 94% of Moroccan women in the 1991 Census were married to a partner from Turkish or Moroccan nationality or descent. Focusing on second-generation immigrant women of Turkish origin, Lodewyckx et al. (2006) find that 60% of them marry a partner from Turkish origin in 2004. Using the German Socio-Economic Panel, Milewski and Kulu (2014) find that 96% of Turkish women were married to men from the same country.

[7] The 14 host countries from our dataset that are also available in Eurostat 2012 are Austria, Belgium, Denmark, Estonia, Hungary, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Portugal, Slovenia, Spain, and Sweden.

[8] Results are similar if we drop the outlier (Tunisia), see Appendix Figure A1.

equality (proxied by the GGI) in the country of ancestry is associated with a 28% decline in the incidence of IPV, a 43% decrease in the intensity of IPV, and a 33% decline in the average number of incidents. Our results are robust to a battery of sensitivity tests.

Recently, several researchers have studied the cross-country variation in IPV (Farmer and Tiefenthaler 1997; Garcia-Moreno *et al.* 2005; Fulu *et al.* 2013; Heise and Kotsadam, 2015; Cools and Kotsadam 2017) or in violence against women more broadly (Bott, Morrison, and Ellsberg 2005; Palma-Solis *et al.* 2008). These studies suggest an association between societal factors in gender-related domains and IPV.[9] While these findings are noteworthy, they encounter at least two challenges that our analysis aims at addressing. First, earlier studies are unable to separate correlation from causality as they suffer simultaneity (or reverse causation) bias. While it is plausible that greater gender equality leads to a reduction in IPV, an alternative interpretation could be that in countries where women suffer less IPV, they also have more respect and self-esteem, easier access to (well) paid labor force, and greater emancipatory demands, leading to the creation of institutions that sanction and condemn domestic violence. In our analysis, this simultaneity bias is less likely as it is difficult to argue that immigrant women affect gender norms and institutions in their country of birth or that of their parents.

Second, most studies analyzing macro-level correlates of IPV focus on which *formal* institutions—namely laws, regulations and policies, institutional factors, economic conditions, and socio-economic characteristics—explain violence against women, as opposed to *informal* institutions or "culture"—namely "*those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation*" (Guiso, Sapienza, and Zingales 2006), such as beliefs regarding women's role in society. Hence, our second

[9] Our analysis complements a well-developed literature on the individual life-course factors that determine whether a couple will experience violence, namely genetic predisposition, developmental pathways, and partner-related factors (see Abramsky et al. 2011 and references within). To the extent possible, our analysis controls for individuals' developmental pathways, as well as partner-related factors.

contribution is to provide evidence on the extent to which the transmission of beliefs (culture), as opposed to institutions *per se*, is associated with a woman's risk of suffering IPV. While our analysis is silent regarding the extent to which institutions matter,[10] our finding that country-of-ancestry gender equality is inversely related to the risk of IPV in the host country underscores the role of cultural attitudes versus (or on top of) that of a country's institutions and formal practices.

Our work relates to two notable and insightful recent studies that estimate the causal role of culture in IPV. Tur-Prats (2019) and Alesina et al. (forthcoming) both address the link between culture and violence against women, with a historical perspective but following very different approaches and data. Tur-Prats (2019) studies the effect of traditional family structure at the region level on current levels of IPV, using data for Spain and medieval inheritance laws as an instrument. Alesina et al. (forthcoming) follow a more descriptive (historical) approach and use cross-country data for Africa to show that pre-colonial customs and norms by ethnic group are correlated with current attitudes and incidence of violence.

We add to this recent evidence in three ways. First, we contribute to the external validity of the finding that cultural factors are relevant in understanding current levels of IPV by providing evidence from 28 European countries. Second, we do so by following a different methodological approach, which we argue controls for many confounding factors. By conditioning on country of residence of the woman and exploiting immigrant women's country of ancestry, we are able to control for economic and institutional variables at the national level. We can also control for aggregate variables at the country of origin level. To our knowledge, we are the first to apply this so-called "epidemiological approach" to the study of the

[10] Others have studied the role of institutions on IPV using quasi-experimental methods. In such studies, institutions include unilateral divorce laws, mandatory arrest laws, or better police and law enforcement against violence against women (Stevenson and Wolfers 2006; Iyengar 2009; Iyer *et al.* 2012), the gender wage gap (Aizer 2010); or unemployment (Tur-Prats 2017).

determinants of IPV. Third, while Tur-Prats focuses on the effect of family structure and Alesina et al. study ancestral customs, we measure the relevant cultural traits of the source country with the degree of gender inequality in a broad range of domains in the recent past.

2. Data

Our main data source is the 2012 European Union Fundamental Rights Agency (FRA) household survey on violence against women, conducted between March and September 2012. The 2012 FRA survey collected women's experiences of physical, sexual and psychological violence by partners and non-partners in 28 EU countries. The survey was carried out using face-to-face interviews, which took place either in the respondent's home or in another place of her choice, and women were reassured of the confidentiality of their responses. All interviewers were female and had a minimum of three months' experience in random probability sampling, in addition to extensive training on interviewing on sensitive questions (FRA 2014).

To be eligible, respondents had to be women between the ages of 18 and 74, residents of one of the 28 EU Member States, and able to speak at least one of the official languages of the country.[11] The sampling was based on a two-stage clustered stratified design, with equal probability of selection for households within clusters. As the first stage, primary sampling units (PSUs) were selected with probability proportional to size. As the second stage, a set number of addresses was randomly selected with a view to conducting a maximum of 30 interviews within the PSU. While all residents within a household had a chance of being included in the sample, only one eligible respondent, selected at random, was interviewed. The

[11] Less than 1% of people contacted were unable to take part because they did not speak one of the languages.

interviews lasted between 30 minutes and an hour, with most interviews being close to three quarters of an hour. The response rate was 77.3% (FRA 2014).

We focus our analysis on the effects of ancestry culture regarding gender on IPV, both at the extensive and intensive margins. To do so, we define the following outcome variables: a binary indicator for whether a woman experienced any physical aggression from a current or previous partner during the previous twelve months, and two measures of the intensity of IPV. First, following Alesina, Brioschi and La Ferrara (forthcoming), we construct a variable that is the sum of the different types of physical aggression to which the woman was exposed during the twelve months prior to the survey (by current or previous partner).[12] This intensive margin indicator ranges between 0 to 10. Table 1 lists the different types of physical aggression that our outcome variables cover. In addition, we construct a second intensity variable that is the sum of the number of incidents of physical aggression (of any type) to which the woman was exposed during the twelve months prior to the survey (by current or previous partner). Appendix Table A1 shows the incidence and intensity of IPV in our sample across host countries. We also control for a battery of individual- and partner-level socio-demographic characteristics, summarized in Appendix Table A2.

We merge our individual-level data (by women's country of ancestry) with national-level indices of gender equality from the 2009 World Economic Forum. The gender gap index (GGI) is a composite of four different indices (economic opportunity, political empowerment, educational attainment, and health and survival) that range from 0 to 1, with larger values indicating a better position of women in society. Alternatively, we use other measures of gender equality to proxy country-of-ancestry gender norms, namely the Gender Inequality Index and the prevalence of physical violence against women by an intimate partner from the United

[12] We also consider measures of IPV that include sexual in addition to physical violence. Our main results are driven by physical violence.

Nations, female labor force participation rates (FLFP) from the International Labour Organization (ILO), and gender-related norms regarding male authority and control, gender discrimination in ownership, and family law from the OECD Development Center. Appendix Table A3 presents a detailed description of all macro-level variables used in the analysis, as well as basic descriptive statistics and their data sources.

Sample Restrictions and Descriptive Statistics

Because of strict data confidentiality reasons, the FRA does not disclose information on parents' country of birth. We succeeded in getting the FRA to share these data with us as long as there were at least 10 cases of individuals with a parent born in a particular foreign country in each host country.[13] After applying this restriction, our sample comprises 3,609 immigrant women for whom we have information on the country of birth of their parents.

If parents' country of birth was different and the mother was born in the host country (or mothers' country of birth was not available), the FRA provided the father's country of birth. For all other cases, the FRA gave us the mother's country of birth. Prioritizing mothers' country of birth is consistent with findings that mother's culture is more relevant for women than father's culture (Blau *et al.* 2013).

First- and second-generation[14] women in our sample come from 41 different countries of ancestry, and live in 22 different EU countries (as shown in Appendix Tables A1 and A4).[15]

[13] Dropping immigrants whose country of ancestry has fewer than 10 observations in a given host country is common practice in this literature (Fernández and Fogli 2006; Nollenberger, Rodríguez-Planas and Sevilla 2016).

[14] Using a similar methodological approach, some studies focus on first-generation immigrants (Carroll, Rhee & Rhee 1994; and Furtado, Marcén and Sevilla 2013), others focus on second-generation immigrants (Fernández and Fogli 2006; Nollenberger, Rodríguez-Planas and Sevilla 2016), or both first- and second-generation immigrants (Osili and Paulson 2008; and Luttmer and Singhal 2011, Rodríguez-Planas 2018).

[15] We lack information on parent's country of birth for six host countries (Bulgaria, Cyprus, Finland, Greece, Poland, and Romania).

Second-generation immigrants represent 45% of our sample (1,631 individuals). The countries of ancestry in our sample cover several continents and different levels of development, with many European countries (25) and some transition economies (such as Poland and Russia), several countries in the Americas (including Argentina and Brazil), and some in Asia (including China, India and Pakistan) and Africa (such as Morocco or Tunisia). The most common countries of ancestry are Russia, Bosnia, Portugal and Germany. The host countries with the largest sample of immigrants are Estonia, Latvia, Luxembourg and Croatia.

One may worry about differential response rates across source and host countries that may lead to selection bias. We address this concern by comparing the share of immigrants from the different source countries in our data and in official statistics (Eurostat). Both are fairly aligned, suggesting that differential response rates are not a first-order problem for our analysis.[16]

In our sample, 4.8% of women report having suffered IPV during the previous 12 months, and the indicators of intensity average 0.11 for types and 0.31 for number of incidents (see Appendix Table A2). There is wide variation in the incidence and intensity of IPV across countries of both residence (Appendix Table A1) and ancestry (Appendix Table A4). The incidence and intensity of IPV in our sample of immigrants are similar to those observed for first- and second-generation migrants for which we do not observe parents' country of ancestry

[16] Using Eurostat data, we estimate the share of immigrants by country of birth for each host country. These data were available for Austria, Belgium, Czech Republic, Denmark, Hungary, Italy, Latvia, Netherlands, Slovakia, Slovenia, Spain, Sweden, and the UK (in 2012) and Ireland (in 2011). We compared these shares to the ones in our sample. We then checked that the most common countries of origin by host country in the survey matched the most common countries in the Eurostat data, focusing on the countries of origin that represented more than a 5% of the immigrant population. In general, most of the countries of origin in the survey match quite well the countries of origin of the immigrant population. There are two cases that do not match and that are worth noting. In the Czech Republic, 28% of immigrants are from Ukraine, and 12% are from Vietnam. Yet, there are no women in the survey living in the Czech Republic coming from any of these two countries. Also, 42% of the immigrant population in Slovenia come from Bosnia & Herzegovina, but there are no women from this country in the survey.

(5.1% and 0.12 types and 0.31 incidents, on average). IPV is slightly lower among native women, with an average incidence of 3.9% and average intensity of 0.09 types and 0.26 incidents. Appendix Table A4 also shows that there is considerable dispersion in gender equality in the country of ancestry, as the GGI ranges from 0.55 in Pakistan to 0.84 in Norway. Appendix Table A5 shows the correlation between the incidence and intensity of IPV in the host country and different measures of gender equality in the country-of-ancestry.

3. Methods

To examine the extent to which country-of-ancestry gender norms affect the likelihood of experiencing intimate partner violence, we estimate the following multivariate fixed-effects linear regression on our sample of immigrant women:

$$V_{ijk}=\alpha_0 + \alpha_1 lnGGI_j + X'_{ijk}\,\alpha_2 + \lambda_k + \varepsilon_{ijk} \qquad (1)$$

where V_{ijk} is our indicator of incidence (or intensity) of IPV experienced by woman i from country of ancestry j and living in host country k. Our main explanatory variable of interest, lnGGI_j, is the natural logarithm of the gender gap index in country of ancestry j. The vector X'_{ijk}, which includes a set of individual and partner characteristics, varies with the specification considered and aims at controlling for factors that may affect violence against women for reasons unrelated to culture. Individual controls include age-group dummies, educational attainment, household's income level, and indicators for second-generation immigrants, married or cohabiting, children, employment status, and rural areas. Partner controls include partner's employment status and educational level. To account for characteristics of the country of residence that may be related to IPV, we include a full set of host-country fixed effects (λ_k). We are thus controlling for institutional and economic variables at the national level.

Unfortunately, the FRA survey does not contain any sub-national disaggregation. Thus, we can only control for institutions that are common at the national level.

Our coefficient of interest, $\hat{\alpha}_1$, captures the association between gender inequality in the country of ancestry and women's experience of IPV in the host country. Standard errors are clustered at the country-of-ancestry level, which is the level of aggregation of our main explanatory variable. While equation (1) is estimated with OLS, our results are robust to using probit for the incidence of IPV, and negative binomial for the intensity of IPV.

Due to data limitations, most of our measures of gender equality are contemporaneous instead of measured at the time when individuals (or their parents) migrated.[17] It is unclear whether it is best to measure gender equality contemporaneously or at the time individuals or their parents arrived to the host country. As Fernández and Fogli (2009) explain "*on the one hand, it could be argued that the values of the culture proxy variables from 1930-1940* (when the parents emigrated)*, or even a decade or two earlier, would best reflect the culture of the country of ancestry. On the other hand, one could argue that the values that parents and society transmit are best reflected in what the counterparts of these women are doing in the country of ancestry in 1970* (when the researchers observed them)*."* In addition, using contemporary measures of gender equality may introduce simultaneity bias if the country of ancestry is influenced by immigrant women advocating for change in their country of origin. To address these concerns, we present results using the gender inequality index from the United Nations, which is available both in 1995 and 2012. Results suggest that the influence of gender norms on IPV varies little over time.

[17] The use of contemporaneous measures is common in the literature (Giuliano 2007; Fernández and Fogli 2009; Furtado, Marcén and Sevilla 2013; and Nollenberger, Rodríguez-Planas, Sevilla 2016; among others).

4. Results

4.1 Baseline model

Table 2.1 presents the main results from estimating different versions of equation 1, in which additional micro-level covariates are sequentially included in the regression. The analysis is done separately for the incidence and the intensity measures of IPV, and shown in the first three rows of Table 2.1. Each coefficient comes from a separate regression.

The model in column 1 only controls for host-country fixed effects and the country-of-ancestry GGI. Column 2 adds age-group dummies. The negative coefficients for the gender gap index in all three regressions in both columns confirm that IPV is negatively correlated with gender equality in the country of ancestry, both at the extensive and intensive margins. All six coefficients are statistically significant at the 1% level. Focusing on the coefficients in column 2, our results suggest that one standard deviation increase in gender equality in the country-of-ancestry is associated with a decrease in the incidence of IPV of 1.1 percentage points (a 28% decrease with respect to the mean),[18] in the intensity of IPV of 0.047 (a 43% decrease relative to the mean), and in the number of incidents of 0.101 (a 33% decrease relative to the mean).[19] Column 3 shows that our findings hold when we use a different functional form, namely a Probit for the incidence indicator and a negative binomial for the intensity indicators.

Perhaps more intuitively, our results suggest that moving from the gender norms of Pakistan to those of Norway would reduce the number of violent events experienced by a woman in the past year by 0.5 (where the mean is 0.3).

---

[18] Using estimates from column 2 in Table 2.1, these values are calculated as follows: $\hat{\alpha}_1\ (-0.186) * logGGI_{std}(0.06) = -0.011$, and $\frac{-0.011}{Intensity_{mean}(0.049)} = -0.28$.

[19] Using estimates from column 2 in Table 2.1, these values are calculated as follows: $\hat{\alpha}_1\ (-0.781) * logGGI_{std}(0.06) = -0.047$ and $\frac{-0.047}{Incidence\ (type)_{mean}(0.11)} = -0.43$.
Using estimates from column 1 in Table 2.1, these values are calculated as follows: $\hat{\alpha}_1\ (-1.682) * logGGI_{std}(0.06) = -0.101$ and $\frac{-0.101}{Incidence\ (incident)_{mean}(0.31)} = -0.33$.

4.2 Micro-level covariates

Concerns that the negative association between country-of-ancestry GGI and IPV is the result of other factors (other than beliefs about gender roles) that affect the correlation between ancestry culture and IPV, such as upbringing, parental networks, and parental resources (Finseraas and Kotsadam 2017), would endorse the use of such parental characteristics as controls in our specification (Fernández and Fogli 2006 and 2009). Since parental characteristics are unavailable in our dataset, we follow Fernández and Fogli (2006 and 2009) and instead directly control for a woman's characteristics, such as her level of education as well as other individual- and partner-level socio-demographic controls. Because these controls are potentially endogenous (affected by country-of-ancestry gender equality), by including them we are estimating the average "direct" effect of country-of-ancestry gender equality on IPV as well as the average "causing mediating" effect of these individual- and partner-level characteristics on IPV (Bullock et al. 2010; Imai et al. 2011).

To the extent that these (potentially endogenous) individual- and partner-level characteristics are affected by country-of-ancestry gender equality,[20] including them as additional controls introduces mediation bias unless one controls for all the variables that are correlated with both these mediators and the outcome (Bullock et al. 2010; Imai et al. 2011). For example, if a woman's educational attainment is affected by her country-of-ancestry gender norms, and higher education increases her incentives to work, which in turn increases her economic empowerment and reduces her odds of experiencing IPV, controlling for women's educational achievement introduces mediation bias to both the estimates of the direct and mediating effects. As Imai et al. (2011) explain, to estimate a causal interpretation of these two effects, we need to assume *sequential ignorability*, which implies that we have fully accounted for any confounders that might have effects on both the woman's odd of victimization and her

[20] These other covariates are called "mediators".

culture.[21] However, "*it is impossible to entirely preclude that there exist unobserved variables that confound the relationships even after conditioning on many observed covariates* (Imai et al. 2011)."

Acknowledging the potential mediation bias, columns 4 to 6 in Table 2.1 sequentially add individual- and partner-level socio-demographic controls to our baseline model. Because of the association between women's risk of IPV and her human-capital accumulation (Fulu *et al.* 2013),[22] and as human capital accumulation may well vary systematically across countries of ancestry, the model in column 4 controls for women's completed education. While controlling for educational attainment reduces our coefficients of interest, $\hat{\alpha}_1$remains negative and statistically significant at all three margins.

Column 4 presents a model that adds controls for education, family structure, labor force status, household income, rural versus urban residence, and whether the woman was born in the survey country. The reason for including such controls is that they may be related to the odds of being an IPV victim for reasons unrelated to gender-domains in the country of ancestry, but that vary systematically across countries of ancestry in such a way that relates with gender equality. For instance, being married, having children, working (or not), living in rural areas, or being foreign-born, as well as one's education level and household's income, are correlated with the risk of suffering IPV (Fulu *et al.* 2013). As education, family structure, work status, household's income or geographic location within the survey country may vary systematically

[21] As Imai et al. (2011) explain "*the assumption is called sequential ignorability because two ignorability assumptions are made sequentially. First, given the observed pretreatment confounders, the treatment assigned is assumed to be ignorable. (….) The second part of the assumption implies that the observed mediator is ignorable given the actual treatment status and pretreatment confounders*."

[22] Women's educational attainment reflects both her labor market and marriage opportunities and is directly related to her socio-economic background (Fulu *et al.* 2013).

across countries of ancestry, not controlling for them could bias our estimates of the effect of culture.

Adding these controls reduces the magnitude of our main coefficients of interest further, consistent with earlier studies showing the relevance of individual life-course factors. Nonetheless, the coefficients of interest, $\hat{\alpha}_1$, remain sizeable, negative, and statistically significant at the 5% level or lower, supporting the hypothesis that experiencing domestic violence in the host country is related to the situation of women in the country of ancestry. Column 5 shows that our findings are robust to alternative functional forms even when all individual-level controls are included.

Under the assumption of sequential ignorability, we can compare how gender norms relate to IPV in relation to other variables, for instance, in relation to having children. In column 4 of Table 2.1, we find that one standard deviation increase in country-of-ancestry log GGI is associated with a decrease in the intensity of IPV of 0.037 (or 33%).[23] Having children is associated with an increase of IPV of 0.107 (coefficient not shown). Hence, we find that the relevance of ancestry culture on the intensity of domestic violence amounts to about one third that of having children. Our analysis thus suggests that gender norms are strongly associated with IPV, strengthening earlier findings by Heise and Kotsadam (2015) on the relevance of gender-equitable norms on partner violence.

The model in column 6 in Table 2.1 addresses concerns that IPV may be related to partner characteristics by controlling for the woman's partnership status, and her partner's educational attainment and employment status.[24] The coefficients of interest change very little.

[23] Using estimates from column 4 in Table 2.1, these values are calculated as follows: $\hat{\alpha}_1(-0.613) * logGGI_{std}(0.06) = 0.037$ and $\frac{0.037}{Incidence_{mean}(0.11)} = 0.33$.

[24] Partner characteristics are for current partner, unless the respondent is currently single, in which case, partner characteristics refer to those of the previous partner. As explained in the introduction, the survey lacks information on the nationality of the partner.

4.3 Alternative measures of violence

Appendix Table A.6 presents estimates using alternative measures of IPV. Column 1 presents our main finding (for physical IPV in the last 12 months), while column 2 shows estimates where the dependent variable is physical IPV since age 15, and columns 3 and 4 present estimates using both physical and sexual violence in the last year or since age 15, respectively. Column 5 presents estimates of psychological violence since age 15 (the survey does not ask for psychological violence suffered in the last 12 months).

We find insignificant coefficients for physical violence since age 15 (column 2) and physical or sexual violence since age 15 (column 4), and in fact both coefficients on the binary measure of incidence of IPV, if small, go in the opposite direction. The results for psychological violence (column 5) go in the same direction and have similar magnitudes to our baseline specification, but are estimated imprecisely. Finally, including sexual violence on top of physical (column 3) doesn't affect the coefficient for the binary incidence of IPV, but it increases the magnitude of the estimated effect on the number of different types of violence suffered by the woman.

4.4 First- versus second-generation immigrants

We would have liked to conduct the analysis with the sample of second-generation immigrants only, as first-generation immigrants have been exposed to other institutions (from their country of ancestry), may experience assimilation problems, or may want to return to their home country (making ancestry institutions relevant to them). Such concerns could bias our $\hat{\alpha}_1$ if these specificities of first-generation immigrants are related to both their odds of IPV *and* the degree of gender equality in their country-of-ancestry, for reasons unrelated to social norms. For instance, this would be a concern if the assimilation problems of first-generation immigrants are directly related to their odds of IPV *and* are greater for immigrants coming from less gender-equal countries.

To explore the extent to which including first-generation immigrants in our sample drives our findings, Appendix Table A7 re-estimates Table 2.1 using only second-generation immigrants. Comparing Appendix Table A7 to Table 2.1 reveals that the coefficients in both tables are very similar in size, suggesting that adding first-generation immigrants does not seem to bias our coefficients of interest. In contrast, the size of the standard errors is considerably larger in Appendix Table A7, indicating an important loss of precision when we only use second-generation immigrants. Given the trade-off between bias and efficiency in this case, we opt for including both first- and second-generation immigrants in the main analysis.

In our sample, 46% of first-generation immigrants have been living in the host country for at least 30 years (63% for at least 20 years). As an additional robustness check, we replicate Table 2.1 excluding first-generation immigrants who have lived in the host country for less than 20 years. This is shown in Table 2.2. The results are very similar to those in Table 2.1, suggesting again that our findings are not driven by assimilation dynamics of recently arrived first-generation immigrants.

4.5 Discrimination, minority status, and child abuse history

The models in columns 1 and 2 in Table 2.3 address concerns that we may be capturing discrimination against immigrants from certain (more or less gender-unequal) countries of ancestry. Column 1 in Table 2.3 adds to the specification from column 2 in Table 2.1 a dummy for whether the woman considers herself part of a minority group, and column 2 presents a model with a dummy for whether the woman reports having experienced discrimination in the host country. We continue to assume sequential ignorability. While we find that women experiencing discrimination also experience more violence (0.0403, std error = 0.0156), the effect of country-of-ancestry GGI on IPV is barely affected in any of the models (compared to those in column 2 in Table 2.1), suggesting that being a minority or discrimination are not driving our results.

Another concern is that our estimates may be picking up the effects of growing up in a violent home, as there is evidence that victims of child abuse are more likely to suffer domestic violence as adults. To explore the extent to which this may be driving our results, the last three columns in Table 2.3 control for whether the respondent reported suffering child abuse (column 3), the number of types of abuse (column 4), and the number of abuse incidents (column 5) suffered during childhood.[25] Estimates from columns 3 to 5 in Table 2.3 are again similar to those in column 2 in Table 2.1.

4.6 Country-of-ancestry aggregate controls

Table 3 explores the robustness of our results to controlling for macro-level country-of-ancestry characteristics such as GDP per capita, literacy rates, the legal system, the property rights index, and/or the Gini index. To the extent that other country-of-ancestry variables are affected by gender equality, including them as additional controls introduces (again) mediation bias unless one controls for all the variables that are correlated with both these mediators and the outcome. For example, if a country's economic development is affected by the level of gender equality, and individuals from more developed countries of ancestry have unobserved characteristics that differ from those of individuals from less developed countries and that also influence women's odds of experiencing IPV in the host country, adding a measure of economic development such as GDP per capita as a control would introduce mediation bias to the estimates of both the direct and mediating effects unless we assume sequential ignorability.

The model in column 1 of Table 3 replicates column 2 in Table 2.1. Column 2 adds the log GDP per capita of the source country. The concern is that by omitting this variable, the GGI may be picking up systematic income or wealth differences across immigrants from different ancestries. Indeed, adding log GDP per capita reduces our coefficients of interest by

[25] Childhood is defined as 15-year old or younger.

more than half, and we lose precision. Despite the loss of statistical significance, we still find that one standard deviation increase in country-of-ancestry log GGI is associated with a decrease in the incidence of IPV of 0.5 percentage points (a 9% decrease relative to the mean),[26] and with a decrease in the intensity of IPV of 0.019 types of incidents (18% of the mean).[27] As explained by Heise and Kotsadam (2015), it is likely that GDP per capita is picking up economic growth and modernization, and hence complex social processes that frequently accompany transformations in women's roles in societies. To put it differently, to the extent that differences in economic development across countries of ancestry also affect the cultural attitude towards women in these societies, we may be over-controlling.

Column 3 in Table 3 presents our baseline model controlling for country-of-ancestry literacy rates. While doing so reduces the coefficients of interest, estimates remain negative (although the effect is no longer significant at the extensive margin). Column 4 adds to our baseline model a control for country-of-ancestry legal systems, which reflects the strength of legal rights and the institutional quality in the country of ancestry (LaPorta et al. 1999). Column 5 includes instead an index of property rights, which measures the degree to which a country's laws protect private property rights, and the degree to which the government enforces those laws and its judiciary system is independent. While controlling for country-of-ancestry legal systems has little effect on our coefficients of interest, controlling for property rights in the country of ancestry reduces the impact of gender-related culture on the incidence of IPV by more than half, and on the intensity of IPV by close to one third (with two out of the three coefficients remaining statistically significant at the 10% level or lower).

---

[26] Using estimates from column 2 in Table 3, these values are calculated as follows: $\hat{\alpha}_1\ (-0.077) * logGGI_{std}(0.06) = 0.005$, and $\frac{0.005}{Incidence_{mean}(0.049)} = 0.09$.

[27] Using estimates from column 2 in Table 3, these values are calculated as follows: $\hat{\alpha}_1\ (-0.323) * logGGI_{std}(0.06) = 0.019$ and $\frac{0.019}{Incidence_{mean}(0.11)} = 0.18$.

Column 6 controls for the Gini index, a measure of income inequality in the country of ancestry. The coefficients on the Gini index are close to zero and not statistically significant (not shown), providing no evidence that immigrants from countries of ancestry with greater inequality are more (or less) likely to experience IPV. Our estimated coefficients of interest remain similar to those in our baseline model.

The model in column 7 includes all macro-level controls that were statistically significant when included one by one in our baseline model. This model captures differences in country-of-ancestry gender norms *beyond* those due to differences in the economic development and institutional quality that may affect domestic violence for reasons unrelated to gender equality. While none of the coefficients of interest are statistically significantly different from zero, it is plausible that we are over-controlling as economic and legal institutions affect how societies differentially treat its citizens based on many dimensions, including gender. To the extent that the level of economic development or the quality of the institutions come hand in hand with social processes that erode norms and beliefs in male superiority and social stigma on women's paid employment or access to education and economic assets, by including them into the model we are testing whether ancestry culture regarding gender is directly related to IPV beyond the indirect ways in which these other variables could affect domestic violence.

Still, the results in Table 3 (especially column 2 when controlling for gdp) raise the concern that our results regarding gender norms and IPV may just be a wealth story. We next explore the possibility that the weaker results when including aggregate controls may be related to our facing measurement error in the variable capturing gender equality in the source country (the GGI). To explore this concern, we re-estimate the regressions with the country-of-origin controls (Table 3), instrumenting the GGI with the 1995 Gender Inequality Index (GII). The

results are shown in Table 4. We also re-estimate our regressions using the GII instead of the GGI as an alternative measure of gender norms in the source country.

Table 4 shows that our coefficients of interest increase in size when we instrument the GGI with the 1995 GII. Most notably, when we control for gdp per capita and instrument the GGI (column 2), two out of our three dependent variables of interest (the binary measure of IPV, and the continuous variable measuring the number of different types of violence) are significantly different from zero, and the coefficient for the binary measure of IPV drops by just 18% relative to the baseline specification (column 1 in Table 4).

We also re-estimate the specification that controls for per-capita GDP of the country of ancestry, using the GII as an alternative measure of gender inequality (that is, as an alternative explanatory variable, instead of an instrument). The coefficient of interest (not shown) remains statistically significant after controlling for GDP per capita, and its magnitude drops by 25% with respect to the baseline specification.

From these additional analyses, we conclude that, even though gender equality is correlated with income at the country level, our documented association between gender norms in the source country and the incidence of domestic violence among immigrants is capturing something above and beyond an effect of source-country wealth.

4.7 Alternative measures of gender norms

Table 5 explores different measures of gender norms in the country of ancestry. The purpose of this exercise is twofold. First, it investigates the sensitivity of our findings to alternative proxies of culture. Second, it may shed some light on the institutional channels in the country of ancestry that may be shaping the gender norms that ultimately affect IPV in the host country. To put it differently, this exercise may inform us on whether the association between ancestry culture and IPV is driven by norms regarding women's role in the labor market versus those regarding their access to the country's educational or political system.

Each row in Table 5 displays the effect of one standard deviation increase in the gender-norms variable on the incidence of IPV (shown in column 1) and the intensity of IPV (shown in column 2 for types and column 3 for number of incidents). We display statistical significance without standard errors to simplify comparison across gender-related measures.

Rows 2 to 5 use one of the four indices included in the GGI instead of the composite (which is shown in the first row and is our baseline model). All estimates of $\hat{\alpha}_1$ are negative, indicating that greater gender equality in economic power, education, political empowerment, and health and wellbeing are all associated with lower IPV in the host country. All but three out of the twelve coefficients are statistically significant at the 5% level, and all but one are statistically significant at the 10% level.

The following two rows use an alternative index of gender equality, the Gender Inequality Index (GII) developed by the UN Development Program and measured both in 2012 and 1995. While the GII is a composite of three different indices (reproductive health, empowerment, and economic status) and its values range from 0 to 1 similar to the GGI, its sign is the opposite because larger GII values indicate larger disparities between females and males and *greater* inequality. Hence, we would now expect a positive and statistically significant $\hat{\alpha}_1$.

Focusing first on the contemporaneous estimate of GII, we observe that greater gender inequality in the country of ancestry (a larger GII) is associated with higher IPV in the host country, consistent with our main results. Comparing $\hat{\alpha}_1$ when using the 1995 GII instead of the 2012 GII reveals a slightly stronger association between gender inequality in the country of ancestry and IPV in the host country with the 1995 measure. By measuring gender equality close to two decades earlier, we are limiting the risk that our measure of gender equality in the country of ancestry is influenced by our immigrant women advocating for change in their

country of origin. The fact that contemporaneous and 1995 GII estimates are relatively close to each other suggests that beliefs about the role of women in society change slowly over time.

The following two rows use female labor force participation and the prevalence of IPV in the country of ancestry as alternative proxies of culture. Again, the results are consistent with our main findings. *Greater* female labor force participation and *lower* IPV prevalence in the country of ancestry are associated with lower IPV in the host country. In the model using IPV prevalence as explanatory variable, we lose precision as data restrictions limit the number of countries of ancestry used and, hence, reduce the sample size.

Following Heise and Kotsadam (2015), in row 10 we use a direct measure of gender-related norms from the Gender, Institutions and Development 2014 Data Base from OECD International Development, namely the percentage of women who agree that a husband/partner is justified in beating his wife/partner under certain circumstances. In the last two rows, we use two measures of discrimination against women: one pertaining to family law, and the other to ownership. Because these institutions are measured at the country-of-ancestry level, we are not directly capturing their effect on IPV in the host country, but instead we are capturing how institutions in the country of ancestry appear to be shaping the gender norms that are related to IPV in the host country. In all three models we find that our coefficients of interest are positive indicating that *greater* acceptance of IPV or gender discrimination in family law or ownership in the country of ancestry correlate with a higher incidence and intensity of IPV in the host country, consistent with our earlier findings.

Comparing the size of the effect for the different gender-related domains in Table 5 reveals that those that seem to matter the most are women's economic participation and

opportunity[28], land and property ownership and access to credit[29], and political empowerment[30]. These findings suggest that the institutional channels in the country of ancestry that shape the gender norms that are relevant to IPV in the host country are those related to women's relative economic power (in terms of wages, employment and types of jobs), women's property rights and access to credit, and women's political empowerment. This evidence is consistent with the feminist theory, which claims that IPV is the result of women's economic dependence and weak bargaining power; but contrasts with the evolutionary theory, which argues that women's greater economic independence (and potential exposure to other men) raises IPV because of husbands' paternity uncertainty and jealousy. While others (Eswaran and Malhotra 2011; Heath 2014; Erten and Keskin 2018) have found that domestic violence is a vehicle employed by males to enhance their bargaining power, consistent with the evolutionary theory, their findings focus on the direct impact of higher labor force participation and earnings on IPV in a particular country (India, Bangladesh, or Turkey). In contrast, our findings underscore the relevance of social norms in relation to what societies consider acceptable behavior for women and men. To the extent that societies support equal gender opportunities in the labor market, men and women are likely to have internalized those norms, and less likely to be threaten by them.

[28] This index is based upon: (1) female over male labor force participation, (2) wage equality between women and men in similar jobs, (3) female over male earned income, (4) female over male legislators, senior officials and managers, and (5) female over male professional and technical workers.

[29] This variable measures legal gender equality and de facto equal rights between men and women with respect to owning land, accessing credit (eg, bank loans), and owning property other than land (eg, a house).

[30] This index is based upon: (1) the ratio women to men with seats in parliament; (2) the ratio of women to men in ministerial level and (3) the ratio of the number of years with a woman as head of state to the years with a man.

4.8 Robustness to the exclusion of certain countries of ancestry

The use of contemporaneous measures of gender equality may be particularly questionable for those immigrant women coming from countries that experienced major changes in their gender norms in the last decades, such as countries that transitioned from a centrally planned economy to a market economy. Given the similarity between the coefficients on the contemporaneous and 1995 GII (shown in rows 6 and 7), the inclusion of women from centrally planned economies in our sample is unlikely to bias our estimates when contemporaneous measures of gender equality are used as a proxy for gender norms. Nonetheless, we re-estimate Table 2.1 excluding from our sample women whose countries of ancestry are or were centrally planned economies.[31] Results (shown in Appendix Table A.8) are very similar to those of Table 2.1, providing additional evidence that this concern is unlikely to be affecting our findings.

A related concern is that immigrant women could potentially affect gender norms and institutions in their country of birth or that of their parents, generating simultaneity bias. For instance, women who moved to countries with low IPV might be more aware of their situation and demand more equal institutions in their countries of origin—and this, in turn, could be reflected in the contemporaneous measure of gender equality. As this is more likely to happen among EU citizens if there is a common policy able to directly or indirectly affect gender issues, or if the shared colonial history favours this permeability, we re-estimated Table 2.1 excluding from our sample, first, EU immigrants (shown in Appendix Table A.9), and second, immigrants from former colonies or protectorates (shown in Table A.10). Overall, the results are consistent with those in Table 2.1. When excluding immigrants from other EU countries of ancestry, we lose precision in the estimate of incidence, but the estimate of intensity (measured

[31] This implies excluding women from the following countries of ancestry: Belarus, Bosnia & Herzergovina, Croatia, Czech Republic, Slovakia, Slovenia, Poland, Romania, Hungary, Russia, Germany, Congo, China, and Cape Verde; dropping 55% of our sample.

in number of events) remains statistically across all specifications. All the estimates that exclude immigrants from former colonies are consistent with our main findings both in terms of sign of the coefficient and statistical significance.

Table 6 presents some additional sensitivity analysis. Column 1 replicates our baseline specification. The next four columns re-estimate the baseline specification, while removing from the sample immigrants coming from Russia (column 2) and Bosnia (column 3), and those residing in Estonia (column 4) and Latvia (column 5). In column 6, we drop observations for and women living in countries with 0 reported cases of IPV. These exclusions leave our key coefficients essentially unaffected, suggesting that our main findings are not driven by the two largest groups of immigrants (those from Russia and Bosnia), those living in the host countries with more observations in our data set (Estonia and Latvia), or artificially low IPV prevalence in the country of residence due to small sample sizes.

4.9 Sorting and institutions

Our approach tries to control for institutions by including country of residence fixed-effects. However, one concern is that there may be heterogeneity in formal or informal institutions within a country, and immigrants may sort into areas with different types or quality of institutions, which may correlate with source country characteristics.

One may try to control for such heterogeneity by including region fixed-effects, but our data set does not provide regional disaggregation within country. Alternatively, we can control for the type of locality, which may plausibly correlate with the quality of institutions. We can also try to measure the strength of relevant institutions by using other proxies, such as women's awareness of such institutions.

We report the results of those exercises in appendix Table A11. Column 1 replicates our baseline specification. In column 2, we control for the type of locality. The different types

include: a big city, the suburbs of a big city, a town or small city, a country village, and a farm or home in the countryside. Including this control does not affect the size of our coefficients of interest.

The survey also includes direct questions about awareness of institutions. In column 3, we control for women's answers to the questions: "Have you recently seen or heard any advertising addressing campaigns against violence against women?", and "As far as you are aware, are there any specific laws or political initiatives in [COUNTRY] for: a) Preventing domestic violence against women?; b) Protecting women in cases of domestic violence?" Again, these additional controls barely affect our main coefficients.

In columns 4 and 5, we control for women's reported knowledge of any cases of domestic violence, either among friends and family or in the place of work or study. Finally, in column 6 we control for all of the variables in column 2 to 5 that are statistically significant when including them one at a time. Our results are robust to the inclusion of these controls, and thus reassure us that within-country sorting may not be a relevant concern.

4.10 Heterogeneity

To explore whether our findings vary across different types of immigrants, Tables 7.1 and 7.2 show results from estimating our baseline specification for different subgroups. In Table 7.1, columns 1 and 2 explore whether the effect varies with a woman's educational attainment; columns 3 and 4 explore heterogeneity by the presence of children, and columns 5 and 6 by first versus second generation. We find stronger effects on incidence for low educated women, whereas those on intensity are driven by women with children. It may be that gender norms become more salient once there are children present in the household. Several previous papers also find that the effect of culture is more pronounced in families with children (see Luttmer and Singhal 2011 on the effects of country-of-ancestry preferences on preferences for redistribution, and Rodríguez-Planas 2018 on the effects of financial culture on mortgage debt).

Consistent with findings on second-generation immigrants discussed earlier, we also find that the effect of gender-related culture holds for *both* first- and second-generation immigrants, and the size of the effect is similar for both subgroups.[32] Findings that culture persists among second-generation immigrants suggest that vertical transmission (from parents to children) may be at work. In Table 7.2, we explore heterogeneity by whether the country of ancestry's GGI is below or above the median GGI; by whether women have the same or lower educational achievement than their partner versus higher educational level; and by whether women have moved from countries with lower gender equality to countries with higher gender equality, or vice versa.

While the effect of culture holds for all subgroups, we find that it is stronger among women whose country of ancestry's GGI is below the median, those who moved from higher to lower GGI countries, and those who experience greater gender imbalance at home (measured by highest educational attainment). Finding that the relevance of gender norms for the incidence and intensity of domestic violence is greater in households with greater gender imbalance is consistent with findings from Bertrand, Kamenika and Pan (2015) reporting that greater gender imbalance in the household is associated with wife's higher share of home production, couple's lower satisfaction with the marriage, and higher odds of divorce.

5. Conclusions

Violence against women is a serious public health issue with traumatic consequences for the women who experience it and their families. It is often perpetrated by an intimate partner or ex-partner. Hence, better understanding the factors related to IPV is a first step into designing policies aiming at reducing domestic violence.

[32] Both the average incidence and number of types are quite similar across the two groups. While the number of times mean is lower for first- than second-generation immigrants, the coefficient of interest is larger for first-generation immigrants and statistically significant.

We study the relationship between women's cultural background and the incidence of domestic violence. We use data from the 2012 FRA survey on violence against women, with rich micro data for 28 EU countries. In order to isolate culture from other factors such as laws, institutions, and economic conditions, which may also affect the incidence of IPV as well as women's beliefs and attitudes, we focus on immigrant and second-generation women who live in the same EU country, and are thus exposed to the same institutions, but whose parents come from different source countries that vary in the extent of gender inequality.

We find that women whose parents come from more gender-unequal countries are significantly more likely to report recent incidents of domestic violence. This association becomes weaker but survives comparing source countries with similar levels of income per capita that differ in the standing of women in society. We interpret our results as indicating that a cultural background with more traditional gender norms may affect the likelihood of this type of victimization. Partner choice (and attitudes of the partner) may be one of the channels.

Our findings underscore the relevance of the intergenerational transmission of gender social norms for women's odds of victimization. Our finding that the results are as strong for second-generation as for first-generation immigrants suggests that gender-related culture persists over time and across generations.

While this is a step forward in disentangling the causal association between gender equality and IPV, there may still be other factors (other than beliefs about gender roles) that affect the correlation between ancestry culture and IPV such as upbringing, parental networks, and parental resources. For instance, Finseraas and Kotsadam (2017) find that, when it comes to female employment, there seem to be factors other than gender culture that affect the association, since the correlation is present for men as well. By comparing siblings of different gender, they find a bias in the effect of culture on female labor force participation in Norway

of about 50% percent.[33] While we do what we can with the data at hand to try to test and correct for omitted characteristics correlated with ancestry culture and inherited outcomes, but uncorrelated with gender, we recognize that the epidemiological approach has its limitations.

Our analysis does not shed light on the extent to which formal institutions affect IPV. However, as North (1990) explains, understanding the role of *informal* institutional constraints is fundamental to guide policy making on modifying *formal* institutions. Finding that gender norms related to women's relative economic and political empowerment, as well as discrimination against women's ownership, provides policy guidance regarding which formal institutions ought to be modified as a strategy to reduce IPV. Improving labor market and political voice and participation might be an effective strategy to modify gender social norms such that domestic violence is reduced. Similar to Heise and Kotsadam (2015), we also find that removing barriers to women's access to land and property may help reduce intimate partner violence levels. However, the mechanism may not necessarily be direct, but may take place via changing gender-related culture or social norms.

Finally, our work contributes to a larger literature focusing on the epidemiological approach and exploiting the fact that because (second-generation) immigrants differ in their cultural background, their parent's country-of-ancestry social norms are relevant for their behavior. For instance, Antecol (2000), Fernández (2007), Fernández and Fogli (2009), and Blau et al. (2013) found a positive relationship between country-of-ancestry female labor force participation and the decision to work of first- and second-generation immigrant women in the US. Using the same approach, Furtado, Marcén and Sevilla (2013) find a positive correlation between the divorce rate in the country of ancestry and women's odds of divorce in the US.

[33] When it comes to the math gender gap, evidence on the existence of an upward bias prior to comparing siblings of different gender is mixed in Sweden with Alden and Neuman (2019) finding evidence of it, but not Ericson (2019).

Because culture and gender norms can affect many decisions and dimensions, we have also explored the association between country-of-ancestry gender inequality and other outcomes, including marital status, educational attainment, and employment status.[34] We find that women from more egalitarian countries are less likely to be ever married, and more likely to be separated. They are also more educated, and are more likely to be in the labor force. These results suggest an interaction between traditional gender norms based on the male breadwinner model, economic dependency that may prevent women from acting against abusive partners, and intimate partner violence.

Our data indicate that the incidence of IPV is higher among immigrant women (including second-generation) than among native women in the EU, and that it is particularly high among women whose parents come from poorer, more gender-unequal countries. In our sample, the countries with the lowest values of the gender equality index include Morocco, Pakistan, Algeria, Congo, and India. Our results highlight that these may be particularly vulnerable groups of women, in part for cultural reasons.

[34] Results available from authors upon request.

References

Abramsky, T., Watts, C.H., Garcia-Moreno, C., Devries, K., Kiss, L., Ellsberg, M., Jansen, H.A. and Heise, L., 2011. "What factors are associated with recent intimate partner violence? Findings from the WHO multi-country study on women's health and domestic violence." *BMC public health*, *11*(1), p.109.

Alesina, A., Brioschi, B., and La Ferrara, E. Forthcoming. "Violence Against Women: A Cross-cultural Analysis for Africa." *Economica*.

Alden, L., and Neuman, E. 2019. "Culture and the gender gap in STEM: An analysis using sibling comparisons." Working Paper, Linnaeus University.

Antecol, H. 2000. "An Examination of Cross-Country Differences in the Gender Gap in Labor Force Participation Rates." *Labour Economics*, 7(4): 409–26.

Antecol, H. 2001. "Why is there interethnic variation in the gender wage gap?: The role of cultural factors." *Journal of Human Resources*, 36(1): 119-143.

Aizer, A. 2010. "The Gender Wage Gap and Domestic Violence", *American Economic Review*, 100, 1847-1859.

Assaad, R., Friedemann-Sánchez, G., and Levinson, D. 2016. "Impact of domestic violence on children's education in Colombia: Methodological challenges". *Violence Against Women,* 23(12), 1484-1512.

Blau, F.D., Kahn, L.M., Liu, A.Y.H., and Papps, K.L. 2013. "The Transmission of Women's Fertility, Human Capital, and Work Orientation across Immigrant Generations." *Journal of Population Economics* 26(2): 405–35.

Bertrand, M., Kamenica, E., and Pan, J. 2015. "Gender identity and relative income within households." *The Quarterly Journal of Economics*, 1302: 571-614.

Bott, S., Morrison, A., and Ellsberg, M. 2005. "Preventing and Responding to Gender-Based Violence in Middle- and Low-Income Countries: a Multi-Sectoral Literature Review and Analysis." e-library, World Bank Group.

Browne, A., Salomon, A., and Bassuk, S.S. 1999. "The Impact of Recent Partner Violence on Poor Women's Capacity to Maintain Work." *Violence against Women*, 5: 393-426.

Bullock, J.G., Green, D.P. and Ha, S.E., 2010. Yes, but what's the mechanism? (don't expect an easy answer). *Journal of personality and social psychology*, *98*(4), p.550.

Carroll, C.D., Rhee, B.K. and Rhee, C.. 1994. "Are There Cultural Effects on Saving? Some Cross-Sectional Evidence." *The Quarterly Journal of Economics* 109(3): 685–99.

Çelikaksoy, A., Nekby, L. and Rashid, S. 2010. "Assortative mating by ethnic background and education among individuals with an immigrant background in Sweden." Zeitschrift für Familienforschung, 22(1), 65-88.

Choi, S. Y., and Ting, K. F. 2008. "Wife beating in South Africa: An imbalance theory of resources and power." *Journal of Interpersonal Violence*, 23, 834–852.

Cools, S., and Kotsadam, A. 2017. "Resources and intimate partner violence in Sub-Saharan Africa." *World Development*. Volume 95, 211-230.

Ericson, S. 2019. "Cultural Gender Norms and the Math Gender Gap." Thesis Lund University.

Erten, B. and Keskin, P.. 2018. "For better or for worse?: Education and the prevalence of domestic violence in turkey." *American Economic Journal: Applied Economics,* 10.1: 64-105.

Eswaran, M. and Malhotra, N. 2011. "Domestic violence and women's autonomy in developing countries: theory and evidence." *Canadian Journal of Economics/Revue canadienne d'économique,* 44.4: 1222-1263.

Farmer A. and Tiefenthaler J. 1997. "An Economics Analysis of Domestic Violence." *Review of Social Economy*, 55 (3): 337-358.

Fernández, R. 2007. "Women, Work and Culture." *Journal of the European Economic Association* 24(4): 329–30.

Fernández, R. 2008. "Culture and Economics." *New Palgrave Dictionary of Economics*, 2nd edition.

Fernández, R. and Fogli, A. 2006. "Fertility: The Role of Culture and Family Experience." *Journal of the European Economic Association*, 4(2-3): 552–61.

Fernández, R., and Fogli, A. 2009. "Culture: An Empirical Investigation of Beliefs, Work, and Fertility." *American Economic Journal: Macroeconomics*, 1(1): 146–77.

Finseraas, H. and Kotsadam, A. 2017. "Ancestry culture and female employment—An analysis using second-generation siblings." *European sociological review*, 33(3), 382-392.

FRA European Union Agency for Fundamental Rights. 2014. "Violence Against Women: An EU-wide Survey: Survey Methodology, Sample and Field Work" ISBN 978-92-9239-273-4 doi:10.2811/67959.

FRA European Agency for Fundamental Rights. 2015. "Violence Against Women: an EU-wide Survey. Main Results." ISBN 978-92-9239-999-3 doi:10.2811/981927 TK-01-13-850-EN-3.

Fryer, R. and Levitt, S. 2010. "An Empirical Analysis of the Gender Gap in Mathematics." *American Economic Journal: Applied Economics* 2(2): 210–40.

Furtado, D., Marcén, M., and Sevilla, A. 2013. "Does Culture Affect Divorce? Evidence from European Immigrants in the United States." *Demography* 50(3): 1013–38.

Fulu, E., Jewkes, R., Roselli, T. and Garcia-Moreno, C., 2013. Prevalence of and factors associated with male perpetration of intimate partner violence: findings from the UN Multi-country Cross-sectional Study on Men and Violence in Asia and the Pacific. *The lancet global health*, 1(4), pp.e187-e207.

Garcia-Moreno, C., Jansen, H.A.F.M, Ellsberg, M., Heise, L., and Watts, C. 2005. WHO Multi-Country Study on Women's Health and Domestic Violence against Women: Initial Results on Prevalence, Health Outcomes, and Women's Responses. *Technical report, Geneva: World Health Organization.*

Giuliano, P. 2007. "Living Arrangements in Western Europe: Does Cultural Origin Matter?" *Journal of the European Economic Association* 5(September): 927–52.

Guiso, L., Monte, F., Sapienza, P., and Zingales, L. 2008. "Culture, Gender, and Math." *Science (New York, N.Y.)* 320: 1164–65.

Guiso, L., Sapienza, P. and Zingales, L. 2006. "Does Culture Affect Economic Outcomes?" Journal of Economic Perspectives, 20(2): 23-48.

Heath, R. 2014. "Women's access to labor market opportunities, control of household resources, and domestic violence: Evidence from Bangladesh." *World Development,* 57: 32-46.

Heise, L. 1998. "Violence against women: An integrated, ecological framework",*Violence Against Women*, 4 (3), June, 262-283.

Heise, L. 2011. "What Works to Prevent Partner Violence? An Evidence Overview". Working Paper. STRIVE Research Consortium, London School of Hygiene and Tropical Medicine, London.

Heise L., and Kotsadam A., 2015. "Cross-National and Multilevel Correlates of Partner Violence: an Analysis of Data from Population-Based Surveys." *Lancet Glob Health*; 3: e332-40.

Hindin, M., S. Kishor, and D. Ansara, 2008. "Intimate Partner violence among couples in 10 DHS countries: Predictors and health outcomes", in *DHS Analytical Studies No. 18*. 2008, Macro International: Calverton, MD.

Imai, K., Keele, L., Tingley, D. and Yamamoto, T., 2011. Unpacking the black box of causality: Learning about causal mechanisms from experimental and observational studies. *American Political Science Review*, *105*(4), pp.765-789.

Kalmijn, M., de Graaf, P. M., and Janssen, J. P. G. 2005. "Intermarriage and the risk of divorce in the Netherlands: The effect of differences in religion and in nationality, 1974–1994". *Population Studies*, 59(1), 71–85.

Lievens, J. 1998. "Interethnic Marriage: Bringing in the Context through Multilevel Modelling". *European Journal of Population* **14,** 117–155.

Lloyd S., Taluc N. 1999. "The Effects of Male Violence on Female Employment." *Violence against Women*, 5: 370-392.

Iyengar, R. 2009. "Does the certainty of arrest reduce domestic violence? Evidence from mandatory and recommended arrest laws." *Journal of Public Economics*, 93(1-2):85-98.

Iyer, L., Mani, A., Mishra, P. and Topalova, P., 2012. The power of political voice: women's political representation and crime in India. *American Economic Journal: Applied Economics*, *4*(4), pp.165-93.

LaPorta, R., Lopez-de-Silanes, F., Shleifer, A., and Vishny, R.W., 1999. "The Quality of Government", *Journal of Law, Economics and Organization*, 15:1, 222-279.

Lapsansky, C. and Chatterjee, J.S., 2013. Masculinity matters: Using entertainment education to engage men in ending violence against women in India. *Critical Arts*, *27*(1), pp.36-55.

Lodewyckx Ina, Rudy Marynissen, Hilâl Yalçin. 2006 "Verliefd, verloofd... gemigreerd: Een onderzoek naar Turkse huwelijksmigratie in Vlaanderen". Antwerp: University of Antwerp.

Luttmer, E.F. and Singhal, M., 2011. Culture, context, and the taste for redistribution. *American Economic Journal: Economic Policy*, *3*(1), pp.157-79.

Milewski, N., Kulu, H. 2014. "Mixed Marriages in Germany: A High Risk of Divorce for Immigrant-Native Couples". *Eur J Population* **30,** 89–113.

Mandal, M., and Hindin, M. J. 2015. "Keeping it in the family: Intergenerational transmission of violence in Cebu, Philippines". *Maternal and Child Health Journal*, 19, 598-605.

Murnen, S.K., Wright, C., and Kaluzny, G. 2002. "If 'boys will be boys,' then girls will be victims? A meta-analytic review of the research that relates masculine ideology to sexual aggression", *Sex Roles*, 46 (11-12), 359-375.

Nollenberger, N., Rodríguez-Planas, N., and Sevilla, A. 2016. "The Math Gender Gap: The Role of Culture." *American Economic Review*, vol. 106, no. 5, pp. 257-61.

North, D. 1990. *Institutions, Institutional Change, and Economic Performance.* New York: Cambridge University Press.

Osili U., and Paulson, A. 2008. "Institutions and Financial Development: Evidence from International Migrants in the United States," *Review of Economics and Statistics*. 90(3): 498-512.

O'Neil, J.M., and M. Harway. 1997. "A multivariate model explaining men's violence toward women: Predisposing and triggering hypotheses", *Violence Against Women*. 3 (2), 182-203.

Palma-Solis M., Vives-Cases, C., Alvarez-Dardet, C. 2008. "Gender Progress and Government Expenditure as a Determinants of Femicide." *Ann Epidemiology*, 18: 322-29.

Rodríguez-Planas, N. 2018. "Mortgage Finance and Culture." *Journal of Regional Science*, 58 (4): 786-821. DOI: 10.1111/jors.12385.

Rodríguez-Planas, N. and Nollenberger, N. 2018. "Let the Girls Learn! It's not Only about Math… It is About Gender Social Norms." *Economics of Education Review*. Vol. 62: 230-253.

Rodríguez-Planas, N. and Sanz-de-Galdeano, A. 2019. "Intergenerational Transmission of Gender Social Norms and Teenage Smoking." *Social Science & Medicine,* 222:122-132.

Stevenson, B. and Wolfers, J. 2006. Bargaining in the Shadow of the Law: Divorce Laws and Family Distress. *The Quarterly Journal of Economics*, Volume 121, Issue 1, 267-288.

Tauchen, H. V., Witte, A. D., and Long, S. K. 1991. Domestic Violence: A Nonrandom Affair. *International Economic Review*, 32(2):491–511.

Tur-Prats, A. 2019. "Family Types and Intimate- Partner Violence: A Historical Perspective". *Review of Economics and Statistics*.

Tur-Prats, A. 2017. Unemployment and Intimate-Partner Violence: A Gender-Identity Approach. Barcelona GSE Working Paper Series. Working Paper nº 963.

United Nations, 2015. The World's Women 2015: Trends and Statistics. New York: United Nations, Department of Economic and Social Affairs, Statistics Division.

Vyas, S. and Watts, C. 2009. How does economic empowerment affect women's risk of intimate partner violence in low and middle income countries? A systematic review of published evidence. *Journal of International Development*, 21(5):577–602.

Warnock V., & Warnock, F. 2008. Markets and Housing Finance. *Journal of Housing Economics, 17(3)*, 239–251.

Whitfield, C.L., Anda, R.F., Dube, S.R., and Felitti, V.J. 2003. "Violent childhood experiences and the risk of intimate partner violence in adults". *Journal of Interpersonal Violence*, 18, 166-185.

World Health Organization. 2002. *World Report on Violence and Health*. World Health Organization, Department of Reproductive Health and Research. ISBN 924 154561 5.

World Health Organization. 2009. *Changing Cultural and Social Norms that Support Violence*, Technical report, Series of briefings on violence prevention: the evidence.

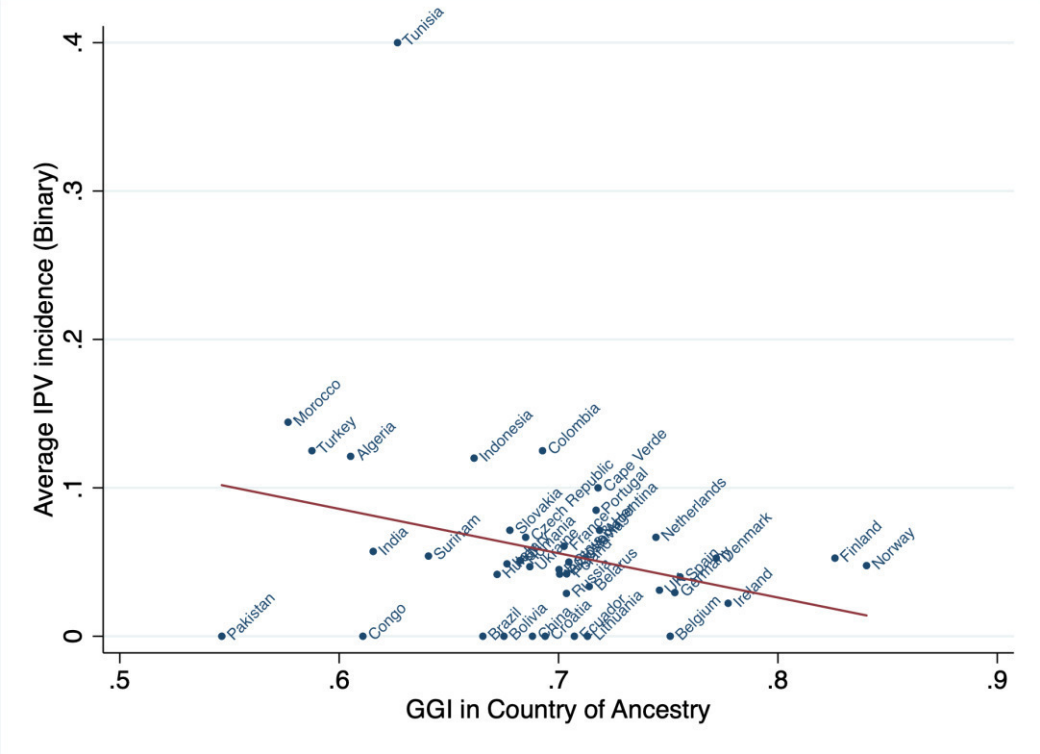
World Health Organization. 2013. *Global and regional estimates of domestic violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence.* Geneva: World Health Organization, Department of Reproductive Health and Research. ISBN 978 92 4 156462 5.

Table 1. Intimate Physical Violence by Current or Previous Partner in the Past 12Months

Could you please tell me how often have you experienced any of the following by any current or previous partner in the past 12 months:
Threatened to hurt you physically
Pushed you or shoved you
Slapped you
Threw a hard object at you
Grabbed you or pulled your hair
Beat you with a fist or a hard object, or kicked you
Burned you
Tried to suffocate you or strangle you
Cut or stabbed you, or shot at you
Beat your head against something

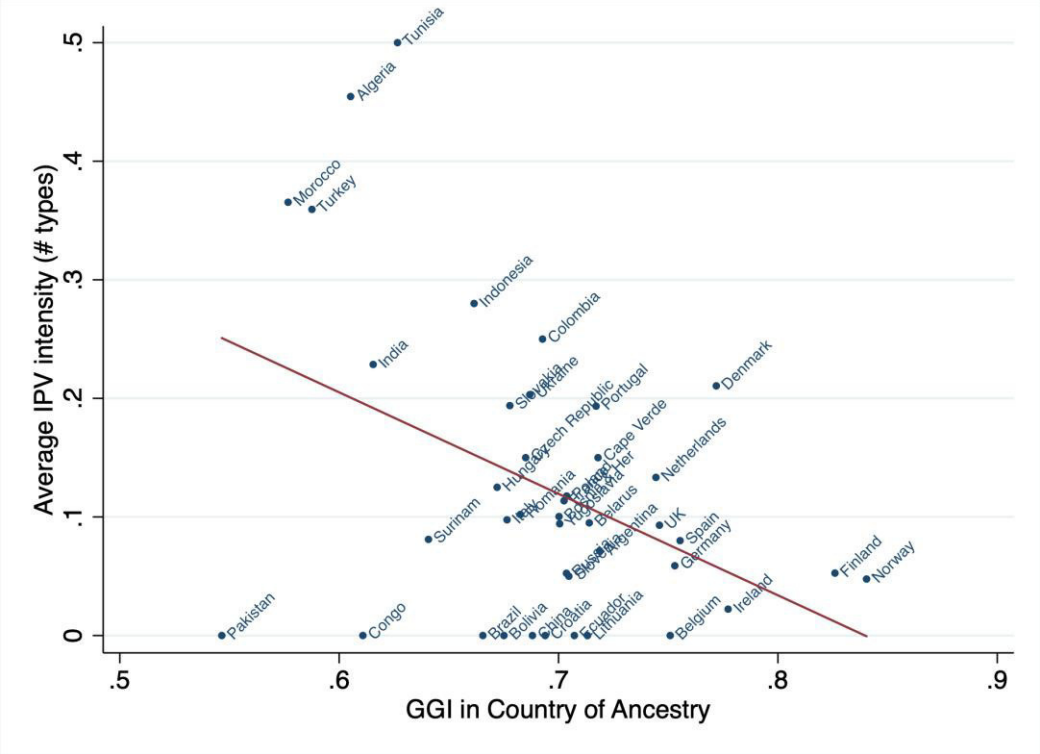
Source: 2012 European Union (EU) Fundamental Rights Agency (FRA) household survey on violence against women. Questions E04 and G04.

Figure 1. Raw Incidence of IPV among Immigrants and Gender Equality in their Countries of Ancestry



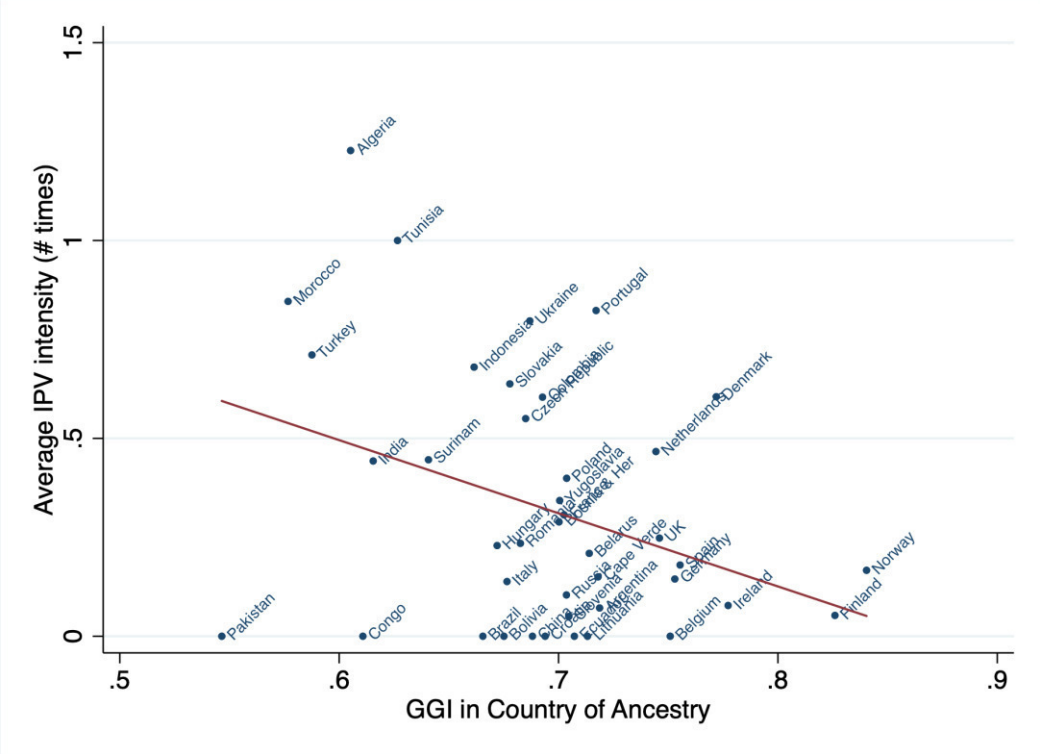
Notes: Figure 1 displays the correlation between the raw incidence of IPV (binary variable) among immigrants in the host country and the GGI in their countries of ancestry. Each variable is an average by country-of-ancestry, across all host countries. The regression line has a slope of -0.2987 with a standard error of 0.1694.

Figure 2. Raw Average Number of IPV Types of Events among Immigrants and Gender Equality in their Countries of Ancestry



Notes: Figure 2 displays the correlation between the raw count of types of IPV incidents among immigrants in the host country and the GGI in their countries of ancestry. Each variable is an average by country-of-ancestry, across all host countries. The regression line has a slope of -0.8558 with a standard error of 0.2977.

Figure 3. Raw Average Number of IPV Counts of Events among Immigrants and Gender Equality in their Countries of Ancestry



Notes: Figure 3 displays the correlation between the raw count of IPV incidents among immigrants in the host country and the GGI in their countries of ancestry. Each variable is an average by country-of-ancestry, across all host countries. The regression line has a slope of -1.8588 with a standard error of 0.7850

Table 2.1. Gender Equality in the Country of Ancestry and Intimate Partner Violence (Physical) in the Past 12 Months

	OLS	OLS	Alt FF	OLS	Alt FF	OLS
	(1)	(2)	(3)	(4)	(5)	(6)
Experienced violence (binary variable)	-0.252***	-0.186***	-1.308***	-0.122**	-0.709*	-0.130**
	(0.0617)	(0.0577)	(0.362)	(0.0576)	(0.411)	(0.0587)
Count of types of violence experienced (continuous variable)	-0.929***	-0.781***	-5.863***	-0.613***	-3.807***	-0.638***
	(0.177)	(0.175)	(1.405)	(0.185)	(1.290)	(0.190)
Count of times experienced violence (continuous variable)	-2.023***	-1.682***	-6.207***	-1.263**	-3.402*	-1.342**
	(0.479)	(0.491)	(1.858)	(0.564)	(1.827)	(0.576)
Observations	3,609	3,609	3,609	3,609	3,609	3,609
Host-country FE	Y	Y	Y	Y	Y	Y
Age controls	N	Y	Y	Y	Y	Y
Individual controls	N	N	N	Y	Y	Y
Partner controls	N	N	N	N	N	Y

Notes: OLS coefficient estimates and their associated standard errors clustered by country of ancestry in parentheses. "Alt FF" in columns 3 and 5 stands for *Alternative functional form* (a Probit model for the binary left-hand-side variable and a negative binomial model for the continuous variables). Age controls correspond to age group FE. Individual controls include education, household's income level, and indicators for being a second-generation immigrant, being married or cohabitating, having children, having a job outside the household, and living in a rural area. Partner controls include indicators for being in a relationship, having a partner that works, and for the partner's educational level. **** p<0.01, ** p<0.05, * p<0.1*

Table 2.2. Gender Equality in the Country of Ancestry and Intimate Partner Violence (Physical) in the Past 12 Months - Second-Generation Immigrants and First-Generation with at least 20 Years in the Host Country

	OLS	OLS	Alt FF	OLS	Alt FF	OLS
	(1)	(2)	(3)	(4)	(5)	(6)
Experienced violence (binary variable)	-0.292***	-0.223**	-1.656***	-0.172**	-1.102*	-0.157*
	(0.0946)	(0.0886)	(0.603)	(0.0840)	(0.611)	(0.0852)
Count of types of violence experienced (continuous variable)	-0.971***	-0.801***	-5.156***	-0.658**	-3.119*	-0.629**
	(0.276)	(0.267)	(1.907)	(0.257)	(1.819)	(0.267)
Count of times experienced violence (continuous variable)	-2.304***	-1.878**	-4.361	-1.504*	-3.361	-1.465*
	(0.775)	(0.777)	(3.505)	(0.790)	(2.808)	(0.814)
Observations	2,869	2,869	2,869	2,869	2,869	2,869
Host-country FE	Y	Y	Y	Y	Y	Y
Age controls	N	Y	Y	Y	Y	Y
Individual controls	N	N	N	Y	Y	Y
Partner controls	N	N	N	N	N	Y

Notes: OLS coefficient estimates and their associated standard errors clustered by country of ancestry in parentheses. "Alt FF" in columns 3 and 5 stands for Alternative functional form (a Probit model for the binary left-hand-side variable and a negative binomial model for the continuous variables). Age controls correspond to age group FE. Individual controls include education, household's income level, and indicators for being a second-generation immigrant, being married or cohabitating, having children, having a job outside the household, and living in a rural area. Partner controls include indicators for being in a relationship, having a partner that works, and for the partner's educational level. *** p<0.01, ** p<0.05, * p<0.1

Table 2.3. Gender Equality in the Country of Ancestry and Intimate Partner Violence (Physical) in the Past 12 Months - Alternative Controls

	OLS	OLS	Alt FF	OLS	Alt FF
	(1)	(2)	(3)	(4)	(5)
Experienced violence (binary variable)	-0.166***	-0.188***	-0.186***	-0.187***	-0.190***
	(0.0567)	(0.0560)	(0.0576)	(0.0543)	(0.0556)
Count of types of violence experienced (continuous variable)	-0.745***	-0.787***	-0.781***	-0.781***	-0.791***
	(0.179)	(0.169)	(0.175)	(0.169)	(0.171)
Count of times experienced violence (continuous variable)	-1.635***	-1.707***	-1.682***	-1.680***	-1.720***
	(0.534)	(0.479)	(0.491)	(0.483)	(0.495)
Observations	3,609	3,609	3,609	3,609	3,609
Minority control	Y	N	N	N	N
Discrimination control	N	Y	N	N	N
Childhood abuse control	N	N	Binary	Types	Count

Notes: OLS coefficient estimates and their associated standard errors clustered by country of ancestry in parentheses. All regressions include Host-country fixed-effects and age controls. *** p<0.01, ** p<0.05, * p<0.1

Table 3. Sensitivity of Results to Country-of-Ancestry Aggregate Controls

	Baseline model						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Experienced violence (binary variable)	-0.186***	-0.0774	-0.0910	-0.177**	-0.131*	-0.172***	-0.0649
	(0.0577)	(0.0677)	(0.0819)	(0.0667)	(0.0772)	(0.0527)	(0.0669)
Count of types of violence experienced (continuous variable)	-0.781***	-0.323	-0.551**	-0.778***	-0.541**	-0.752***	-0.316
	(0.175)	(0.231)	(0.252)	(0.195)	(0.237)	(0.170)	(0.237)
Count of times experienced violence (continuous variable)	-1.682***	0.00295	-1.602	-1.717***	-0.714	-1.675***	-0.0994
	(0.491)	(0.808)	(0.977)	(0.631)	(0.613)	(0.518)	(0.966)
Observations	3,609	3,609	3,609	3,609	3,609	3,609	3,610
Host-country FE	Y	Y	Y	Y	Y	Y	Y
Age controls	Y	Y	Y	Y	Y	Y	Y
Country of ancestry log gdp per capita	N	Y	N	N	N	N	Y
Country of ancestry literacy rate	N	N	Y	N	N	N	N
Country of ancestry legal system	N	N	N	Y	N	N	Y
Country of ancestry property rights	N	N	N	N	Y	N	N
Gini index	N	N	N	N	N	Y	N

Notes: OLS coefficient estimates and their associated standard errors clustered by country of ancestry in parentheses. Column 7 only includes aggregated country-of-ancestry controls that were statistically significant in previous specifications. *** p<0.01, ** p<0.05, * p<0.1

Table 4. Sensitivity of Results to Country-of-Ancestry Aggregate Controls - IV regressions (GGI instrumented with GII 1995)

	(1)	(2)	(3)	(4)	(5)	(6)
Experienced violence (binary variable)	-0.328***	-0.268***	-0.442**	-0.332***	-0.362***	-0.243**
	(0.0549)	(0.0678)	(0.189)	(0.0758)	(0.121)	(0.104)
Count of types of violence experienced (continuous variable)	-1.122***	-0.548*	-1.344***	-1.107***	-1.185***	-0.421
	(0.159)	(0.289)	(0.488)	(0.211)	(0.359)	(0.335)
Count of times experienced violence (continuous variable)	-2.474***	0.868	-3.452**	-2.404***	-1.568	1.240
	(0.522)	(1.102)	(1.755)	(0.683)	(1.119)	(1.159)
Observations	2,853	2,853	2,853	2,853	2,853	2,853
Host-country FE	Y	Y	Y	Y	Y	Y
Age controls	Y	Y	Y	Y	Y	Y
Country of ancestry log gdp per capita	N	Y	N	N	N	Y
Country of ancestry literacy rate	N	N	Y	N	N	N
Country of ancestry legal system	N	N	N	Y	N	Y
Country of ancestry property rights	N	N	N	N	Y	N

Notes: 2SLS coefficient estimates of instrumenting log(GGI) using GII 1995, and their associated standard errors clustered by country of ancestry in parentheses. Column 6 only includes aggregated country-of-ancestry controls that were statistically significant in previous specifications. *** p<0.01, ** p<0.05, * p<0.1

Table 5. Country-of-Ancestry Measures of Gender Equality and IPV

One standard deviation increase in:	Affects IPV in the host country by:						# obs	# clusters
The following measure of country-of-ancestry gender equality	Incidence (in %)		Intensity (types)		Intensity (count)			
log GGI	-24%	***	-44%	***	-34%	***	3,609	41
log Economic Power Index	-28%	***	-44%	***	-29%	***	3,609	41
log Education Index	-16%	*	-28%	**	-15%		3,609	41
log Health Index	-15%	*	-27%	**	-27%	**	3,609	41
log Political Empowerment Index	-22%	**	-48%	***	-42%	**	3,609	41
Gender Inequality Index 2012 (UNPD)	28%	**	43%	***	33%	**	3,398	39
Gender Inequality Index 1995 (UNPD)	47%	***	69%	***	55%	***	2,853	33
Female Labor Force Participation (Avg.2000-2014)	-35%	***	-64%	***	-43%	**	3,609	41
Aggregate IPV	11%		18%		10%		2,150	32
% women who agree IPV can be justified	6%		16%		7%		3,552	39
Family Law Discrimination	17%	*	34%	**	29%	**	3,552	39
Ownership Discrimination	31%	**	49%	***	34%	**	3,552	39

Notes: Percentages shown represent the effect (relative to the mean) of one standard deviation increase in the gender-related variable used in each regression on the incidence of IPV (shown in column 1) and the intensity of IPV (shown in column 3 for types and column 5 for counts of incidents). These were calculated using estimates from separate baseline regressions with different measures of country-of-ancestry gender-related domains, and a formula like the ones in footnotes 16 to 18. Percentages from the first row are estimated with the coefficients from column 2 in Table 2.1. Columns 2, 4 and 6 in this table show the statistical significance of the coefficient of interest. *** p<0.01, ** p<0.05, * p<0.1

Table 6. Sensitivity Analysis to Selection of Immigrants

	(1) Baseline model	(2) Dropping immigrants from Russia	(3) Dropping immigrants from Bosnia	(4) Dropping immigrants in Estonia	(5) Dropping immigrants in Latvia	(6) Dropping countries with no cases of IPV
Experienced violence (binary variable)	-0.186***	-0.185***	-0.186***	-0.181***	-0.182***	-0.278***
	(0.0577)	(0.0583)	(0.0580)	(0.0583)	(0.0584)	(0.0411)
Count of types of violence experienced (continuous variable)	-0.781***	-0.771***	-0.794***	-0.768***	-0.741***	-1.032***
	(0.175)	(0.176)	(0.177)	(0.177)	(0.175)	(0.119)
Count of times experienced violence (continuous variable)	-1.682***	-1.615***	-1.700***	-1.633***	-1.477***	-2.147***
	(0.491)	(0.484)	(0.492)	(0.492)	(0.473)	(0.403)
Observations	3,609	2,847	3,320	3,110	3,118	3,346
Host-country FE	Y	Y	Y	Y	Y	Y
Age controls	Y	Y	Y	Y	Y	Y

Notes: OLS coefficient estimates and their associated standard errors clustered by country of ancestry in parentheses. Russia and Bosnia are the two countries of ancestry with more observations, while Estonia and Latvia are the two host countries with more observations. *** p<0.01, ** p<0.05, * p<0.1

Table 7. Heterogeneity Analysis

Table 7.1 Heterogeneity by education, children and 1st vs. 2nd generation

	(1) Low educated	(2) High educated	(3) No children	(4) Children	(5) 1st-generation immigrants	(6) 2nd-generation immigrants
Experienced violence (binary variable)	-0.144**	-0.118	-0.188	-0.131**	-0.199*	-0.167
	(0.0675)	(0.112)	(0.152)	(0.0553)	(0.0998)	(0.127)
Mean dep var	*0.054*	*0.039*	*0.042*	*0.05*	*0.048*	*0.049*
Count of types of violence experienced (continuous variable)	-0.642**	-0.796	0.0836	-0.866***	-0.904***	-0.603*
	(0.239)	(0.473)	(0.279)	(0.219)	(0.266)	(0.314)
Mean dep var	*0.128*	*0.084*	*0.088*	*0.118*	*0.106*	*0.12*
Count of times experienced violence (continuous variable)	-1.144*	-1.876*	0.605	-1.921***	-1.913***	-1.305
	(0.601)	(1.039)	(1.077)	(0.623)	(0.549)	(0.835)
Mean dep var	*0.360*	*0.235*	*0.225*	*0.335*	*0.288*	*0.347*
Observations	2,275	1,334	683	2,926	2,008	1,601
Host-country FE	Y	Y	Y	Y	Y	Y
Age controls	Y	Y	Y	Y	Y	Y

Table 7.2 Heterogeneity by GGI and partner's education

	(7) Low GGI country origin	(8) High GGI country origin	(9) Woman same or less educ than partner	(10) Woman more educ than partner	(11) Moved from lower to higher GGI country	(12) Moved from higher to lower GGI country
Experienced violence (binary variable)	-0.265**	-0.137	-0.191**	-0.274*	-0.159	-0.864***
	(0.123)	(0.170)	(0.0778)	(0.160)	(0.105)	(0.249)
Mean dep var	*0.070*	*0.040*	*0.046*	*0.077*	*0.057*	*0.041*
Count of types of violence experienced (continuous variable)	-1.233***	-0.715	-0.624**	-1.292**	-0.754**	-2.531***
	(0.315)	(0.502)	(0.245)	(0.487)	(0.294)	(0.664)
Mean dep var	*0.183*	*0.084*	*0.100*	*0.171*	*0.144*	*0.089*
Count of times experienced violence (continuous variable)	-2.637***	-2.300	-0.799	-2.632**	-1.465	-8.029***
	(0.734)	(1.831)	(0.572)	(1.233)	(0.871)	(2.289)
Mean dep var	*0.489*	*0.246*	*0.240*	*0.432*	*0.375*	*0.268*
Observations	1,004	2,605	1,867	703	1,532	2,077
Host-country FE	Y	Y	Y	Y	Y	Y
Age controls	Y	Y	Y	Y	Y	Y

Notes: OLS coefficient estimates and their associated standard errors clustered by country of ancestry in parentheses. We estimate the baseline specification for each of the subgroups separately. *** *p<0.01,* ** *p<0.05,* * *p<0.1*

Appendix

Table A1. Incidence and Intensity of IPV Across Host Countries

Host country	Frequency	Percent	Mean IPV Incidence (binary)	Mean IPV Intensity (types)	Mean IPV Intensity (count)
Austria	210	5.8	0.0762	0.2190	0.3881
Belgium	208	5.8	0.1154	0.2356	0.5649
Croatia	353	9.8	0.0397	0.0708	0.2550
Czech Republic	98	2.7	0.0714	0.1939	0.6378
Denmark	19	0.5	0.0000	0.0000	0.0000
Estonia	499	13.8	0.0220	0.0481	0.1483
France	122	3.4	0.0902	0.1885	0.5041
Germany	84	2.3	0.0238	0.0476	0.2381
Hungary	26	0.7	0.0769	0.1538	0.2500
Ireland	106	2.9	0.0472	0.1604	0.4434
Italy	10	0.3	0.1000	0.3000	0.5500
Latvia	491	13.6	0.0387	0.0957	0.2658
Lithuania	93	2.6	0.0323	0.1183	0.1183
Luxembourg	468	13.0	0.0556	0.1239	0.4765
Malta	46	1.3	0.0217	0.0217	0.0761
Netherlands	161	4.5	0.0683	0.1988	0.6211
Portugal	14	0.4	0.0000	0.0000	0.0000
Slovakia	71	2.0	0.0704	0.1690	0.5423
Slovenia	149	4.1	0.0134	0.0134	0.0302
Spain	113	3.1	0.0442	0.0708	0.1460
Sweden	138	3.8	0.0362	0.0580	0.1304
United Kingdom	130	3.6	0.0308	0.0846	0.1615
Total	3,609	100	0.0482	0.1119	0.3138

Notes: Statistics based on the benchmark sample of 3,609 immigrants used in most of our estimations. Source: 2012 European Union (EU) Fundamental Rights Agency (FRA) household survey on violence against women.

Table A2. Individual-Level Variables: Descriptive Statistics

Variables	(1) Mean	(2) St. Dev.	(3) Min.	(4) Max.
IPV incidence in last 12 months	0.0482	0.2142	0	1
IPV types count in last 12 months	0.1119	0.6123	0	8
IPV incidents count in last 12 months	0.3138	2.0992	0	46.5
Age	47.61	15.23	18	74
Less than high school	0.2807	0.4494	0	1
University education	0.2139	0.4101	0	1
Married or cohabitating	0.5946	0.4910	0	1
Has children	0.8108	0.3918	0	1
Works in the labor market	0.4796	0.4997	0	1
Lives in rural area	0.1992	0.3995	0	1
Second-generation immigrant	0.4436	0.4969	0	1
Partner is university educated	0.1521	0.3592	0	1
Partner is employed	0.4597	0.4984	0	1
Is a minority	0.2064	0.4048	0	1
Has suffered discrimination	0.1164	0.3207	0	1

Notes: Statistics based on the benchmark sample of 3,609 immigrants used in most of our estimations. Source: 2012 European Union (EU) Fundamental Rights Agency (FRA) household survey on violence against women.

Table A3. Country-of-Ancestry Variables: Definition and Descriptive Statistics

Name	Definition	Mean	St. Dev. across countries of ancestry
A. Gender Equality Measures			
Gender Gap Index (GGI)	Summarizes the position of women by considering economic opportunities, economic participation, educational attainment, political achievements, health and survival. The index ranges between 0 and 1. Larger values point to a better position of women in society. Source: World Economic Forum, 2009 Report.	0.69	0.06
Economic Participation and Opportunity Index	Index based upon: (1) female over male labor force participation, (2) wage equality between women and men in similar jobs, (3) female over male earned income, (4) female over male legislators, senior officials and managers, and (5) female over male professional and technical workers. The index range between 0 and 1. Larger values point to a better position of women in society. This index is also elaborated for the World Economic Forum as part of the Gender Gap Index. Source: World Economic Forum, 2009 Report.	0.63	0.12
Educational Attainment Index	Index based upon: (1) female over male literacy rate, (2) female over male primary-education enrollment, (3) female over male secondary-education enrollment, and (4) female over male tertiary-education enrollment. The index range between 0 and 1. Larger values point to a better position of women in society. This index is also elaborated for the World Economic Forum as part of the Gender Gap Index. Source: World Economic Forum, 2009 Report.	0.97	0.06
Health and Survival Index	Index based upon: (1) the gap between women and men's healthy life expectancy, and (2) the sex ratio at birth, which aims to capture the phenomenon of "missing women". The index range between 0 and 1. Larger values point to a better position of women in society. This index is also elaborated for the World Economic Forum as part of the Gender Gap Index. Source: World Economic Forum, 2009 Report.	0.97	0.01
Political Empowerment Index	Index based upon: (1) the ratio women to men with seats in parliament; (2) the ratio of women to men in ministerial level and (3) the ratio of the number of years with a woman as head of state to the years with a man. The index range between 0 and 1. Larger values point to a better position of women in society. This index is also elaborated for the World Economic Forum as part of the Gender Gap Index. Source: World Economic Forum, 2009 Report.	0.19	0.13
Gender Inequality Index	This an inequality index that measures gender inequalities in three important aspects of human development: (1) reproductive health, measured by maternal mortality ratio and adolescent birth rates; (2) empowerment, measured by proportion of parliamentary seats occupied by females and proportion of adult females and males aged 25 years and older with at least some secondary education; and (3) economic status, expressed as labour market participation and measured by labour force participation rate of female and male populations aged 15 years and older. Source: United Nations Development Program.	In 1995: 0.36 In 2012: 0.26	In 1995: 0.20 In 2012: 0.17
FLFP	Female labor force participation rates for women 15 years old and older. We use the average between 2000 and 2014. Source: International Labour Organization.	0.48	0.13
Aggregate IPV	Lifetime IPV (%). Source: The Gender, Institutions and Development 2014 Data Base from OECD International Development.	22.66	10.04
Percent of women who agree IPV can be justified	The percentage of women who agree that a husband/partner is justified in beating his wife/partner under certain circumstances. Source: The Gender, Institutions and Development 2014 Data Base from OECD International Development. This data base presents comparative data on gender equality. It has been compiled from secondary sources such as Gender Stats and the Human Development Report as well as from in-depth reviews of country case studies. These data help analyze women's economic empowerment and understand gender gaps in other key areas of development. Covering 160 countries, the GID-DB contains comprehensive information on legal, cultural and traditional practices that discriminate against women and girls.	0.18	0.17
Family Law Discrimination	Parental authority after divorce: Whether women and men have the same right to be the legal guardian of a child during marriage. Parental authority after divorce is presented as values ranging from 0 to 1, with 0 meaning that the law guarantees the same rights for men and women and 1 meaning that the law does not guarantee the same rights to men and women. Source: The	0.10	0.26

	Gender, Institutions and Development 2014 Data Base from OECD International Development.		
Ownership Discrimination	Measure that codes women's vs men's legal and de facto rights with respect to owning land, accessing credit (eg, bank loans), and owning property other than land (eg, a house). Source: The Gender, Institutions and Development 2014 Data Base from OECD International Development.	0.13	0.20

Table A3. Country-of-Ancestry Variables: Definition and Descriptive Statistics (*continued*)

Name	Definition	Mean	St. Dev. across countries of ancestry
B. Macro Variables			
GDP per capita	Gross Domestic Product per capita in real terms deflated with Laspeyres price index. We average the 2003, 2006 and 2009 values. Source: Heston, A., Summers, R. and Aten, B, Penn, World Table Version 7.0, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, May 2011.	14,751	12,533
Gini index	Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality. We took the average of all the GINI coefficients available from 2001 to 2005. Germany had no GINI index available between 2000-2005 so we used the 2006 value. Algeria was not listed as a country, we found a GINI index of 35.3 online at mecometer.com. Source: World Bank Development Indicators.	0.37	0.09
Literacy rate	Percentage of the population age 15 and above who can, with understanding, read and write a short, simple statement on their everyday life. Generally, 'literacy' also encompasses 'numeracy', the ability to make simple arithmetic calculations. This indicator is calculated by dividing the number of literates aged 15 years and over by the corresponding age group population and multiplying the result by 100. We averaged the values between 2000 and 2007 and expressed the result as a value between 0 and 1. Source: World Bank Development Indicators. Missing values from the World bank dataset were completed using CIA factbook as well as http://world.bymap.org/LiteracyRates.html	0.91	0.13
Legal system index	Strength of legal rights index measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending. The index ranges from 0 to 10, with higher scores indicating that these laws are better designed to expand access to credit. Source: World Bank's Doing Business Reports and Warnock V., & Warnock, F. (2008).	4.77	2.09
Property rights index	A rating of property rights in each country (on a scale from 0 to 100). The more protection private property receives, the higher the score. The score is based, broadly, on the degree of legal protection of private property, the extent to which the government protects and enforces laws that protect private property, the probability that the government will expropriate private property, and the country's legal protection private property. We averaged the values between 2000 and 2005. Source: Index of Economic Freedom.	49.36	24.35

Appendix Table A4. IPV in the Host Country and Country-of-Ancestry Gender Equality Across Countries of Ancestry

		In Host Country			In Country of Ancestry						
Country of ancestry	Sample size	IPV Incidence (binary)	IPV Intensity (types)	IPV Intensity (count)	GGI	GGI Economic	GGI Education	GGI Health	GGI Political power	GII 1995	GII 2012
Algeria	33	0.121	0.455	1.227	0.605	0.467	0.953	0.966	0.035	0.679	0.436
Argentina	14	0.071	0.071	0.071	0.719	0.602	0.995	0.980	0.298	0.419	0.366
Belarus	179	0.034	0.095	0.209	0.714	0.721	0.998	0.979	0.143		0.15
Belgium	65	0.000	0.000	0.000	0.751	0.710	0.991	0.979	0.324	0.162	0.07
Bolivia	11	0.000	0.000	0.000	0.675	0.596	0.959	0.972	0.174		0.492
Bosnia & Herz.	289	0.045	0.100	0.289	0.700	0.661	0.994	0.980	0.142		0.194
Brazil	14	0.000	0.000	0.000	0.665	0.643	0.990	0.980	0.049	0.521	0.446
Cape Verde	20	0.100	0.150	0.150	0.718	0.555	0.837	0.976	0.145		
China	13	0.000	0.000	0.000	0.688	0.693	0.981	0.929	0.150		0.177
Colombia	24	0.125	0.250	0.604	0.693	0.694	0.996	0.979	0.102	0.542	0.413
Congo	16	0.000	0.000	0.000	0.611	0.541	0.859	0.961	0.083		0.608
Croatia	76	0.000	0.000	0.000	0.694	0.661	0.994	0.980	0.142	0.279	0.131
Czech Repub.	60	0.067	0.150	0.550	0.685	0.621	1.000	0.979	0.140	0.252	0.132
Denmark	19	0.053	0.211	0.605	0.772	0.744	1.000	0.974	0.370	0.102	0.045
Ecuador	18	0.000	0.000	0.000	0.707	0.599	0.988	0.976	0.267	0.584	0.415
Finland	57	0.053	0.053	0.053	0.826	0.757	0.999	0.980	0.569	0.101	0.065
France	132	0.061	0.114	0.307	0.702	0.661	1.000	0.980	0.169	0.22	0.108
Germany	204	0.029	0.059	0.145	0.753	0.714	0.994	0.978	0.325	0.156	0.085
Hungary	24	0.042	0.125	0.229	0.672	0.689	0.990	0.978	0.031	0.322	0.262
India	35	0.057	0.229	0.443	0.615	0.403	0.837	0.931	0.291	0.687	0.567
Indonesia	25	0.120	0.280	0.680	0.661	0.575	0.964	0.966	0.141	0.58	0.475
Ireland	45	0.022	0.022	0.078	0.777	0.741	1.000	0.970	0.399	0.203	0.144
Italy	123	0.049	0.098	0.138	0.677	0.589	0.995	0.970	0.152	0.198	0.116
Lithuania	39	0.000	0.000	0.000	0.713	0.756	0.989	0.980	0.128	0.326	0.137
Morocco	104	0.144	0.365	0.846	0.577	0.408	0.861	0.971	0.067	0.72	0.53
Netherlands	45	0.067	0.133	0.467	0.744	0.723	0.997	0.970	0.288	0.114	0.047
Norway	21	0.048	0.048	0.167	0.840	0.831	1.000	0.970	0.561	0.121	0.06
Pakistan	11	0.000	0.000	0.000	0.547	0.306	0.770	0.956	0.154	0.766	0.56
Poland	119	0.042	0.118	0.399	0.704	0.653	0.999	0.979	0.184	0.258	0.15
Portugal	212	0.085	0.193	0.823	0.717	0.672	0.989	0.974	0.233	0.244	0.122
Romania	98	0.051	0.102	0.235	0.683	0.708	0.989	0.977	0.056	0.472	0.343
Russia	762	0.029	0.052	0.104	0.704	0.736	0.999	0.979	0.100	0.466	0.294
Slovakia	98	0.071	0.194	0.638	0.678	0.637	1.000	0.980	0.094	0.248	0.187
Slovenia	20	0.050	0.050	0.050	0.705	0.723	0.998	0.975	0.123	0.246	0.07
Spain	25	0.040	0.080	0.180	0.755	0.624	0.996	0.975	0.426	0.157	0.095
Surinam	37	0.054	0.081	0.446	0.641	0.449	0.985	0.974	0.154		0.489
Tunisia	10	0.400	0.500	1.000	0.627	0.450	0.966	0.962	0.128	0.53	0.307
Turkey	64	0.125	0.359	0.711	0.588	0.386	0.912	0.975	0.077	0.631	0.36
UK	129	0.031	0.093	0.248	0.746	0.721	1.000	0.970	0.293	0.237	0.16
Ukraine	128	0.047	0.203	0.797	0.687	0.707	1.000	0.976	0.065	0.48	0.318
Yugoslavia	191	0.042	0.094	0.343	0.701	0.687	0.993	0.970	0.147		
	3,609	0.048	0.112	0.314	0.701	0.670	0.986	0.976	0.168	0.355	0.224

Table A5. Cross-Correlations: Host-Country IPV and Country-of-Ancestry Gender Equality

	In Host Country			In Country of Ancestry										
	IPV incidence (binary)	IPV intensity (types)	IPV intensity (counts)	GGI	GGI Economic	GGI Education	GGI Health	GGI Political power	GII 1995	GII 2012	FLFP	IPV	% women agree IPV	Family Law Discr
Gender Gap Index (GGI)	-0.081	-0.089	-0.058	1										
Economic Opportunity	-0.102	-0.099	-0.065	0.81	1									
Educational Attainment	-0.075	-0.076	-0.040	0.67	0.80	1								
Health and Survival	-0.032	-0.039	-0.027	0.29	0.44	0.52	1							
Political Empowerment	-0.023	-0.035	-0.023	0.72	0.21	0.13	-0.15	1						
GII 1995	0.054	0.065	0.032	-0.761	-0.452	-0.587	-0.210	-0.686	1					
GII 2012	0.047	0.055	0.029	-0.741	-0.512	-0.630	-0.295	-0.568	0.973	1				
FLFP	-0.075	-0.075	-0.048	0.54	0.73	0.48	0.27	0.11	-0.254	-0.181	1			
IPV	0.030	0.036	0.014	-0.37	-0.30	-0.32	-0.03	-0.25	0.555	0.529	-0.18	1		
% women agree with IPV	0.014	0.025	0.001	-0.46	-0.30	-0.53	-0.37	-0.29	0.779	0.725	0.05	0.29	1	
Family Law Discrimination	0.049	0.065	0.038	-0.44	-0.47	-0.56	-0.33	-0.15	0.540	0.386	-0.28	0.14	0.29	1

Notes: This table displays Pearson correlations between variables. Statistics based on the benchmark sample of 3,609 immigrants used in most of our estimations.

Table A6. Country-of-Ancestry GGI and Incidence and Intensity of Other Measures of Violence

	Physical last year	Physical since age 15	Physical + Sexual last year	Physical + Sexual since age 15	Psychological violence since age 15
	(1)	(2)	(3)	(4)	(5)
Experienced violence ever (binary variable)	-0.186***	0.0747	-0.176**	0.0891	-0.129
	(0.0577)	(0.147)	(0.0717)	(0.175)	(0.258)
Count of types of violence experienced ever (continuous variable)	-0.781***	-0.579	-1.015***	-0.583	-1.181
	(0.175)	(0.502)	(0.283)	(0.790)	(1.634)
Observations	3,609	3,609	3,609	3,609	3,609
Host-country FE	Y	Y	Y	Y	Y
Age controls	Y	Y	Y	Y	Y

Notes: OLS coefficient estimates and their associated standard errors clustered by country of ancestry in parentheses. Age controls include dummy variables for each age group. Questions on psychological violence during the last year are not available in the survey. **** p<0.01, ** p<0.05, * p<0.1*

Table A7. Country-of-Ancestry GGI and Incidence and Intensity of Intimate Partner Physical Violence in the Past 12 Months - Second-Generation immigrants

	OLS	OLS	Alt FF	OLS	Alt FF	OLS
	(1)	(2)	(3)	(4)	(5)	(6)
Experienced violence (binary variable)	-0.280**	-0.169	-0.946	-0.149	-0.693	-0.140
	(0.135)	(0.125)	(0.788)	(0.129)	(0.899)	(0.135)
Count of types of violence experienced (continuous variable)	-0.885**	-0.609*	-2.493	-0.515	-0.725	-0.488
	(0.329)	(0.311)	(2.074)	(0.330)	(2.135)	(0.342)
Count of times experienced violence (continuous variable)	-1.936**	-1.323	-2.570	-0.973	-0.880	-0.920
	(0.829)	(0.841)	(3.775)	(0.896)	(3.364)	(0.828)
Observations	1,594	1,594	1,594	1,594	1,594	1,594
Host-country FE	Y	Y	Y	Y	Y	Y
Age controls	N	Y	Y	Y	Y	Y
Individual controls	N	N	N	Y	Y	Y
Partner controls	N	N	N	N	N	Y

Notes: OLS coefficient estimates and their associated standard errors clustered by country of ancestry in parentheses. "Alt FF" in columns 3 and 5 stands for Alternative functional form (a Probit model for the binary left-hand-side variable and a negative binomial model for the continuous variables). Age controls include dummy variables for each age group. Individual controls include education, household's income level, and indicators for being married or cohabitating, having children, having a job outside the household, and living in a rural area. Partner controls include indicators for being in a relationship, having a partner that works, and for the partner's educational level. The missing coefficient in column 5 couldn't be estimated because convergence was not achieved. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table A8. Country-of-Ancestry GGI and Incidence and Intensity of Intimate Partner Physical Violence in the Past 12 Months - Excluding Immigrants from Former Centrally Planned Economies

	OLS	OLS	Alt FF	OLS	Alt FF	OLS
	(1)	(2)	(3)	(4)	(5)	(6)
Experienced violence (binary variable)	-0.278***	-0.190**	-1.248**	-0.137*	-0.765	-0.157**
	(0.0664)	(0.0708)	(0.509)	(0.0687)	(0.521)	(0.0727)
Count of types of violence experienced (continuous variable)	-0.963***	-0.789***	-6.266***	-0.626**	-3.804**	-0.701**
	(0.199)	(0.219)	(2.048)	(0.244)	(1.490)	(0.259)
Count of times experienced violence (continuous variable)	-1.994***	-1.522**	-6.805**	-1.213	-3.091*	-1.490*
	(0.596)	(0.658)	(2.864)	(0.752)	(1.683)	(0.802)
Observations	1,631	1,631	1,631	1,631	1,631	1,631
Host-country FE	Y	Y	Y	Y	Y	Y
Age controls	N	Y	Y	Y	Y	Y
Individual controls	N	N	N	Y	Y	Y
Partner controls	N	N	N	N	N	Y

Notes: OLS coefficient estimates and their associated standard errors clustered by country of ancestry in parentheses. "Alt FF" in columns 3 and 5 stands for Alternative functional form (a Probit model for the binary left-hand-side variable and a negative binomial model for the continuous variables). Age controls include dummy variables for each age group. Individual controls include education, household's income level, and indicators for being married or cohabitating, having children, having a job outside the household, and living in a rural area. Partner controls include indicators for being in a relationship, having a partner that works, and for the partner's educational level. The missing coefficient in column 5 couldn't be estimated because convergence was not achieved. **** p<0.01, ** p<0.05, * p<0.1*

Table A9. Country-of-Ancestry GGI and Incidence and Intensity of Intimate Partner Physical Violence in the Past 12 Months - Excluding EU Immigrants

	OLS	OLS	Alt FF	OLS	Alt FF	OLS
	(1)	(2)	(3)	(4)	(5)	(6)
Experienced violence (binary variable)	-0.231*	-0.135	-0.794	-0.0622	-0.221	-0.0971
	(0.129)	(0.135)	(0.802)	(0.147)	(0.945)	(0.140)
Count of types of violence experienced (continuous variable)	-1.225***	-1.021**	-7.863**	-0.790	-5.119	-0.890*
	(0.396)	(0.399)	(3.870)	(0.491)	(3.389)	(0.462)
Count of times experienced violence (continuous variable)	-3.557***	-3.233***	-13.24**	-2.946**	-10.06**	-3.141**
	(1.082)	(1.091)	(5.743)	(1.374)	(4.864)	(1.331)
Observations	2,019	2,019	2,019	2,019	2,019	2,019
Host-country FE	Y	Y	Y	Y	Y	Y
Age controls	N	Y	Y	Y	Y	Y
Individual controls	N	N	N	Y	Y	Y
Partner controls	N	N	N	N	N	Y

Notes: OLS coefficient estimates and their associated standard errors clustered by country of ancestry in parentheses. "Alt FF" in columns 3 and 5 stands for Alternative functional form (a Probit model for the binary left-hand-side variable and a negative binomial model for the continuous variables). Age controls include dummy variables for each age group. Individual controls include education, household's income level, and indicators for being married or cohabitating, having children, having a job outside the household, and living in a rural area. Partner controls include indicators for being in a relationship, having a partner that works, and for the partner's educational level. The missing coefficient in column 5 couldn't be estimated because convergence was not achieved. **** p<0.01, ** p<0.05, * p<0.1*

Table A10. Country-of-Ancestry GGI and Incidence and Intensity of Intimate Partner Physical Violence in the Past 12 Months - Excluding Immigrants from Former Colonies

	OLS	OLS	Alt FF	OLS	Alt FF	OLS
	(1)	(2)	(3)	(4)	(5)	(6)
Experienced violence (binary variable)	-0.303***	-0.238***	-1.474***	-0.183***	-0.943***	-0.180**
	(0.0760)	(0.0687)	(0.346)	(0.0645)	(0.343)	(0.0671)
Count of types of violence experienced (continuous variable)	-1.177***	-1.027***	-5.223***	-0.888***	-3.925**	-0.890***
	(0.261)	(0.258)	(1.521)	(0.261)	(1.538)	(0.268)
Count of times experienced violence (continuous variable)	-2.573***	-2.257***	-4.980*	-1.892**	-4.235	-1.916**
	(0.787)	(0.804)	(2.633)	(0.863)	(3.043)	(0.875)
Observations	3,332	3,332	3,332	3,332	3,332	3,332
Host-country FE	Y	Y	Y	Y	Y	Y
Age controls	N	Y	Y	Y	Y	Y
Individual controls	N	N	N	Y	Y	Y
Partner controls	N	N	N	N	N	Y

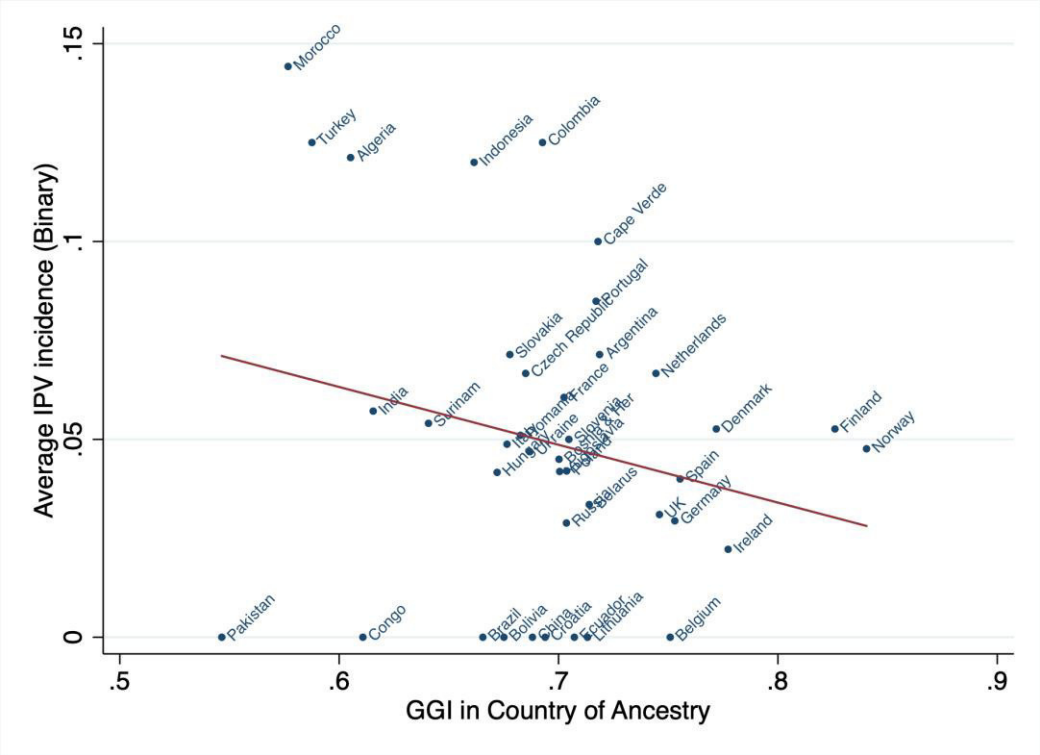
Notes: OLS coefficient estimates and their associated standard errors clustered by country of ancestry in parentheses. "Alt FF" in columns 3 and 5 stands for Alternative functional form (a Probit model for the binary left-hand-side variable and a negative binomial model for the continuous variables). Age controls include dummy variables for each age group. Individual controls include education, household's income level, and indicators for being married or cohabitating, having children, having a job outside the household, and living in a rural area. Partner controls include indicators for being in a relationship, having a partner that works, and for the partner's educational level. The missing coefficient in column 5 couldn't be estimated because convergence was not achieved. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table A11. Country-of-Ancestry GGI and Incidence and Intensity of Intimate Partner Physical Violence in the Past 12 Months - Quality of institutions at subnational level

	(1) Baseline	(2)	(3)	(4)	(5)	(6)
Experienced violence (binary variable)	-0.186***	-0.184***	-0.182***	-0.194***	-0.186***	-0.193***
	(0.0577)	(0.0573)	(0.0556)	(0.0538)	(0.0564)	(0.0533)
Count of types of violence experienced (continuous variable)	-0.781***	-0.805***	-0.777***	-0.804***	-0.783***	-0.830***
	(0.175)	(0.180)	(0.172)	(0.168)	(0.171)	(0.173)
Count of times experienced violence (continuous variable)	-1.682***	-1.760***	-1.721***	-1.747***	-1.686***	-1.831***
	(0.491)	(0.528)	(0.505)	(0.475)	(0.474)	(0.507)
Observations	3,609	3,609	3,609	3,609	3,609	3,609
Host-country FE	Y	Y	Y	Y	Y	Y
Age controls	Y	Y	Y	Y	Y	Y
Locality size FE	N	Y	N	N	N	Y
Awareness of institutions	N	N	Y	N	N	N
Know women victim of IPV (friends & family)	N	N	N	Y	N	Y
Know women victim of IPV (work & study)	N	N	N	N	Y	Y

Notes: OLS coefficient estimates and their associated standard errors clustered by country of ancestry in parentheses. Age controls correspond to age group FE. "Awareness of institutions" include indicators for recently having seen/heard campains against IPV, being aware of laws in the host-country preventing IPV, or being aware of laws in the host-country protecting women in cases of IPV. *** p<0.01, ** p<0.05, * p<0.1

Figure A.1. Raw Incidence of IPV among Immigrants and Gender Equality in their Countries of Ancestry without Outlier (Tunisia)



Notes: Appendix Figure A.1 displays the correlation between the raw incidence of IPV (binary variable) among immigrants and second generation (during the previous 12 months), and the GGI in their countries of ancestry. Each variable is an average by country-of-ancestry. The regression line has a slope of -0.1461 with a standard error of 0.1022