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ABSTRACT

# Traditional Norms, Access to Divorce and Women's Empowerment*

Social norms can mitigate the effectiveness of formal institutions, in particular the way legal reforms may affect women's autonomy. We examine this question in the context of ethnic variation in traditional post-marital cohabitation, i.e. matrilocality versus patrilocality. We use within-country variation in ethnic kinship practices in Indonesia, exploiting a major legal reform that exogenously fostered women's access to justice and their ability to divorce. We theoretically establish that compared to women of patrilocal tradition, matrilocal women should divorce relatively more after the reform and, for those in stable marriages, experience a relative increase in empowerment. We test these predictions using double-difference estimations with fixed effects. We confirm the relative increase in divorce among matrilocal women and, for those who stay married, a relative improvement in a wide range of outcomes for them and their children. We also predict higher benefits for matrilocal women experiencing a larger drop in divorce costs, which we test with triple-difference estimations exploiting the distance to courthouses. Our results encourage tailored policies that may transcend cultural contexts and overcome the adherence to informal laws.

**JEL Classification:** D13, I15, I38, J16, K36, Z13

**Keywords:** legal reforms, divorce, ethnic norms, intra-household decision-making

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# 1 Introduction

Traditional social norms may strongly mitigate the impact of development programs aimed at supporting disadvantaged groups such as women and children (Jayachandran, 2021; Bau and Fernández, 2022). This is particularly the case of legal reforms that attempt to promote access to justice and embolden women in the exercise of their rights. While institutional frameworks can greatly contribute to women's autonomy (Duflo, 2012), especially through changes in divorce laws and women's legal rights (Voena, 2015), little is known about the interaction of formal laws with informal practices in shaping the evolution of women's outcomes.[1]

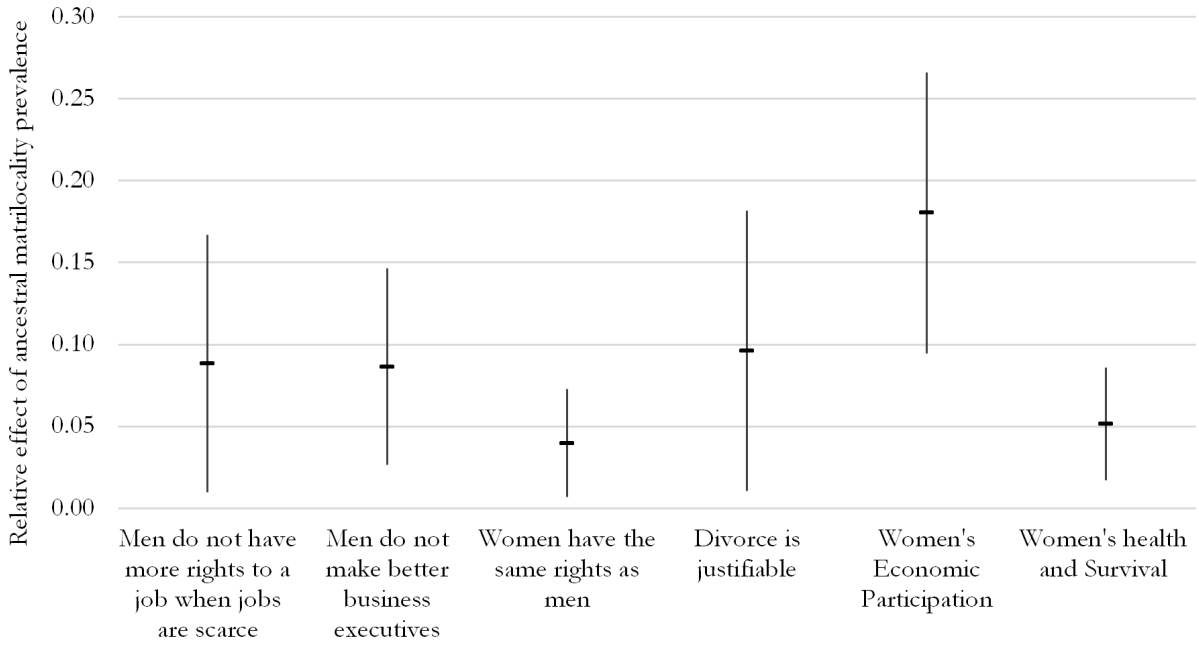
The present paper provides novel evidence on the way customs can foster or frustrate the implementation of pro-women laws. We study a reform implemented in 2008-2010, which has fostered women's access to justice and their ability to divorce. This reform has greatly increased access to the courts for women and disadvantaged groups, notably by alleviating their financial constraints (for instance by waiving legal fees), increasing the capacities of 'circuit courts' (i.e. courts traveling to rural subdistricts) or providing an extensive range of services (e.g. free legal assistance). We study the heterogeneity of response to reform among women of different cultural norms. In doing so, we contribute to a nascent literature that examines how ethnic kinship traditions such as bride price and matrilineality may alter the efficiency of gender and development policies (Ashraf et al., 2020; La Ferrara, 2007; La Ferrara and Milazzo, 2017).

We focus on a central norm that possibly embodies deep household heterogeneity in terms of gender rights and role, namely post-marital residency. Among different possible arrangements, patrilocality and matrilocality represent two opposite norms that are observed in traditional environments where people tend to live in large families. They respectively correspond to the practice of living after marriage with or near the groom's versus the bride's parents. Patrilocality prescribes that men become their parents' source of old-age support (Bau, 2021), dissuading parents from investing in their daughters (Sundaram and Vanneman, 2008). In contrast, matrilocal contexts may increase women's position in case of disagreement (Jayachandran, 2015). The important aspect for us is that beyond the actual practice of post-marriage residence, the traditional norm is still a relevant correlate of attitudes towards gender roles today and may affect the ability of women to benefit from development policies or to take-up legal reforms helping divorce. We shall provide some evidence using within-country variation and a natural experiment. Beforehand, we can further motivate this investigation with simple cross-country correlations. In Figure 1, we show results of a regression of key variables – i.e. contemporaneous opinions about gender rights and women's outcomes – on the prevalence of traditional matrilocality. A systematic relationship between progressive outcomes and matrilocality clearly stands

[1] Theoretical work shows how institutions that are in conflict with informal norms may fail to be fully implemented and may backfire (Acemoglu and Jackson, 2017).

out.[2] From these global correlations, we conjecture that traditional residence norms may also be a pertinent source of heterogeneity for the impact of legal reforms that make divorce more accessible.

**Figure 1: Worldwide Correlations between Ancestral Matrilocality and Contemporaneous Pro-women Outcomes**




Notes: Point estimates (markers) and 90% confidence intervals (vertical bars) from a regression of country-level contemporary women's outcomes on the relative degree of matrilocality, calculated as the proportion of citizens from ancestral matrilocality minus the proportion from ancestral patrilocality (source: Alesina et al., 2013). Outcomes drawn from the World Value Surveys, the World Economic Forum and the World Bank Enterprise Surveys. Detailed estimates and information in Table A1 in the Appendix. Here, estimates are relative to the country outcome means.

We focus on the interaction between formal and informal norms in the Indonesian context for several reasons. A first motivation is the extent of gender inequality. Despite recent improvements in women's legal rights, Indonesia was ranked 110$^{th}$ by the United Nations and 92$^{nd}$ by the World Economic Forum in 2015.[3] Also, Indonesia is characterized by a great ethnic diversity and contrasted kinship practices in terms of post-marriage residence norms in particular (Rammohan and Robertson, 2012). We shall exploit this heterogeneity in our empirical work and show how different groups of women may catch up legal progress at different speed. A third aspect is the unique possibility to recover what pertains to traditions rather than actual practices, as motivated later. Specifically, Indonesian ethnic-based customs belong to the so-called *Adat* system, which guides family life and often prevails over legal laws (Buttenheim and Nobles, 2009) or even religious precepts, especially when it comes to family rules and decisions.

[2]Detailed estimates and information about data sources are reported in Table A1.
[3]With a Gender Inequality Index of 0.494 and a Global Gender Gap Index of 0.681 respectively.

Finally, and most importantly, the legal reform that occurred between 2008 and 2010 allow us to study how cultural norms affect policy effectiveness in a context of pro-women legislative changes.

To answer this question, we first develop a simple two-period household model with limited commitment to outline the main intra-household mechanisms and yield clear predictions. The reform is modelled as an expansion of the possibility to divorce for both matrilocal and patrilocal women. We only assume that matrilocal women have better access to resources and support from their family in case of divorce, which actually matches empirical regularities as we will show. With this simple asymmetry, we theoretically demonstrate that, when the possibility to divorce increases after the reform, women of matrilocal tradition are more likely to actually divorce and, when the marriage lasts, to renegotiate and gain a better position in marriage. We also show that among matrilocal women, those facing higher ex-ante costs of divorce should respond the most: this heterogeneity is further used as an additional source of variation in the empirical application.

The reform is used as a natural experiment to test these predictions. We carry out double and triple difference estimations on the Indonesia Family Life Survey (IFLS), controlling for household fixed effects and for the dynamic effects of many household characteristics (such as religion and geographical location). We verify the common-trend assumption on the pre-reform period and provide numerous checks regarding specification, controls, outcome definition, treatment definition or the role of other kinship norms. In line with theoretical predictions, we find that Indonesian women originating from matrilocal groups are more responsive to the reform: they tend to divorce more and, if they remain with their partner, experience a significant improvement in their bargaining position and welfare. This is true for a broad array of outcomes including women's health status, their control over fertility decisions, asset accumulation, their (and their children's) food consumption and well-being, as well as 'final say' variables over key household decisions. We also verify the second prediction with triple-difference estimations. For this, we conjecture that the drop in divorce cost is higher for those located far from courthouses. Thus, we combine time, ethnic and spatial variation, i.e. we additionally exploit households' spatial dispersion and degree of exposure to the reform. Women living relatively far from courthouses experience larger drops in divorce costs and benefit more from the reform.

This paper contributes to several strands of the literature. First, we provide new evidence on the role of access-to-justice reforms and divorce-related laws on marital breakdown, households' inter-temporal behavior and women's empowerment. Most of this literature examines how unilateral divorce in Western countries makes the threat of divorce credible and, hence, affects the intra-household allocation in marriage.[4] This type of mechanism is rarely studied in the

[4]Stevenson and Wolfers (2006) and Voena (2015) evaluate how the adoption of laws allowing unilateral

context of poorer countries and settings where divorce is not common.[5] We show that in the Indonesian case, a change in legal rights in favor of women can be perceived as sufficiently effective – at least among ethnicities of matrilocal tradition – to affect the probability of divorce and the degree of women's empowerment.

This paper also contributes to the literature on the importance of kinship practices for economic outcomes. Traditional norms have garnered considerable attention in anthropological studies and more recently in economics, notably how informal rules dictating family arrangements affect empowerment and women's well-being.[6] Our paper is one of the few studies focusing on post-marriage residence norms, among different types of kinship practices, and the way they mitigate the impact of legal reforms. It relates to Bau (2021) who examines how the practice of matrilocality may, in turn, be altered by specific policies influencing parental decisions in the Indonesian context. While some policies may indeed affect *actual* residence practices, we focus here on *traditional* residence norms – and the underlying gender-related norms they carry – to explain ethnic differences in the response to legal reforms.

Most importantly, our study is one of the few to focus on how traditional norms alter policy reforms in general and legal reforms in particular. Specifically, the question is whether cultural traits that are more favorable to women constitute a complement or a substitute for legal institutions that promote gender equality. In this sense, it is close to two recent studies that focus on the way culture interferes with policy implementation. Extending Duflo (2001), Ashraf et al. (2020) find that the impact of school construction programs on girls' enrollment in Indonesia depends on whether they belong to ethnic groups that traditionally engage in bride price payments. La Ferrara and Milazzo (2017) study the introduction of quotas for the land that parents should devolve on their children in Ghana and find a negative impact of the reform on educational outcome of boys originating from matrilineal ethnic group. As these authors, we test how the effectiveness of pro-women policies can vary with customary practices. We conclude that both pro-women laws and financial support to engage in divorce procedures should be better tailored to transcend cultural contexts and overcome the adherence to informal laws.

divorce across the United States changed divorce and women's position in marriage. As in those papers, we expect changes in women's position in marriage to be driven both by selection into marriage and changes in the Pareto weight of women who stay married.

[5]Some evidence exists for middle income countries. Sun and Zhao (2016) document how China's pro-women divorce reform has empowered women within marriage and reduced health-damaging sex-selective abortion.

[6]Jayachandran (2015) describes how various cultural practices – such as patrilocality, patrilineality or the payment of bride price or dowry – may affect women's outcomes. Several studies examine in particular the effect of bride price on early marriages (Corno et al., 2021) and women's well-being (Lowes et al., 2017) or the effect of matrilineality on household cooperation and women's and children's outcomes (La Ferrara, 2007; Lowes, 2018; Loper, 2022). Exploring the origins of cultural norms also provides a better understanding of their contemporary impact on economic outcomes: several studies base this investigation on ethnic diversity (Alesina and Ferrara, 2005) or more specificatlly on the role of specific practices, for instance in agriculture, in shaping gender roles (Alesina et al., 2013; Doepke and Tertilt, 2009; Alesina et al., 2021) and norms such as matrilineality (BenYishay et al., 2017).

The paper is structured as follows. Section 2 provides insights of the Indonesian cultural and institutional contexts. Section 3 offers theoretical results while section 4 describes the data and the empirical approach. Section 5 presents the main results and sensitivity checks. Section 6 concludes.

# 2 Background on Social Norms and Legal Reforms

We provide some background on traditional residence norms and their correlation with women's empowerment using global evidence and a focus on Indonesia. The section ends with a description of the reform under study.

## 2.1 Traditional Norms and Female Empowerment: Global Evidence

Post-marital residence norms have long been emphasized by anthropologists and sociologists as a social structure shaping household organisation. As such, different ethnic groups engage in different practices, which have been categorized as follows: matrilocality (married couples live with or near the bride's family), patrilocality (they live with or near the groom's family), ambilocality (they can live with or near either spouse's parents) and neolocality (they can set their own household, i.e. the basis of most developed nations).

**Traditional versus Actual Residence Norms and Women's Outcomes.** Many anthropological and economic studies attribute lower education, a lower marriage age and low levels of autonomy to women in groups adopting patrilocality.[7] The basic explanation, recalled by Sundaram and Vanneman (2008), pertains to the fact that parents are dissuaded from investing in their daughters' education if these girls leave the home after marriage. Selective abortion in East/South Asia and South Caucuses is also linked to the fact that daugthers in patrilocal families cannot provide care once the parents are old (Ebenstein, 2014). Patrilocal contexts may also increase husbands' outside options due to the pressure exerted by the presence of their own relatives on the wife. Yet, living with his or her relatives is not the only aspect affecting spouses' relative empowerment. More generally, matrilocality or patrilocality are salient features of a broader ethnic diversity in family customs and gender roles - as reflected in the global correlations presented in the introduction. For this reason, we will focus on the heterogeneity in terms of traditional rather than actual post-marriage residence in our empirical approach. A second reason for choosing traditional norms is the fact that actual arrangements may reflect many other aspects pertaining to a couple's environment than just the ethnic cultural characteristics. Finally, we have discussed in the introduction the possibility that actual practices are

[7] This is the case for instance in Dyson and Moore (1983) for northern India, Garg and Morduch (1998) for Ghana and, in the Indonesian context, Buttenheim and Nobles (2009), Rammohan and Johar (2009) and Rammohan and Robertson (2012).

altered by policies (Bau, 2021), which also motivates the use of traditional norms.

**Origins of Residence Norms.** Several explanations have been given by anthropologists and economists for the emergence of residence norms (see the extensive discussion of Bau, 2021). Patrilocality might have originated from a greater productive role attributed to sons, from a larger bargaining power given to them or from the need to locate multiple women within a husband's household in a polygynous setup (Edlund, 2001). Botticini and Siow (2003) explain how patrilocal societies transfer wealth via dowries for their daughters and via bequests for their sons in order to maintain the incentives of the latter to exert effort on the family farm. Sons' incentives may also depend on paternity uncertainty, which may be reduced if their parents can monitor the sexual behavior of the son's wife by living in the same household (Guha, 2010). All in all, the important aspect for us is that ancestral residence norms carry a lot of information about gender rights and roles within an ethnic group. Traditional matrilocality will therefore be an interesting source of heterogeneity to exploit in terms of response to legal reforms.

**Interplay between matrilocality and other norms.** Our focus on matrilocality and the potential role of other norms are worth commenting. Bau (2021) finds that, worldwide, patrilocality is positively correlated with the practice of bride price. However, she finds no such correlation in the context of Indonesia – we confirm this in our empirical analysis hereafter. There is a closer relationship between matrilocality and matrilineality, as both norms may have co-evolved (Opie et al., 2014) and are correlated both globally and within countries (Bau, 2021). Matrilineality implies that lineage and inheritance pass through the daughter's line, which may be related to the risk of non-paternity of the son's children (Fortunato, 2012) and, in turn, change the incentives to invest in daughters.[8] Importantly, note that our choice to focus on patri/matrilocality rather than patri/matrilineality is driven by empirical considerations: as we shall discuss, there is very little variation in lineage tradition across ethnicities in Indonesia (compared to the variation in residence norms that we exploit). We also show that our results are not confounded by other norms such as matrilineality or bride price.

## 2.2 Traditional Residence Norms: the Indonesian Context

Against this background, Indonesia is a particularly relevant field of investigation given its extraordinary ethnic diversity and the noticeable variety of social norms – residence norms in particular – that derives from it. Three points should be made.

First, residence norms are not geographically polarized. This can be seen on the map of Figure 2, where we show the location of places interviewed in the IFLS and the prevailing residence norm

[8] Alternative theories highlight the role played by different types of agricultural production. Matrilineality tends to occur in societies where women have a dominant role in agriculture, such as horticultural societies (Jones, 2011), while patrilineality might have been favored in activities where men have a prevailing role, such as pastoralism (Holden and Mace, 2003).

of each village/town. In most of the regions, villages of both patrilocal and matrilocal ancestries are surveyed. This is important if we want to avoid alternative interpretations whereby different ethnic groups would respond differently to the reform just because of their location. We further check the role of spatial heterogeneity in our estimations. In particular, we will control for being rural or for the distance to courthouses (often located in district capitals). We will also check the potential role of certain regions as outliers. Finally, we will explore heterogeneity in pre-reform divorce costs using the distance to the nearest courthouse. Figure 3 displays courthouse locations in Indonesian, showing that they are not specifically concentrated where villages of matrilocal tradition are located.

**Figure 2: Traditional Post-Marital Residence of IFLS Villages**

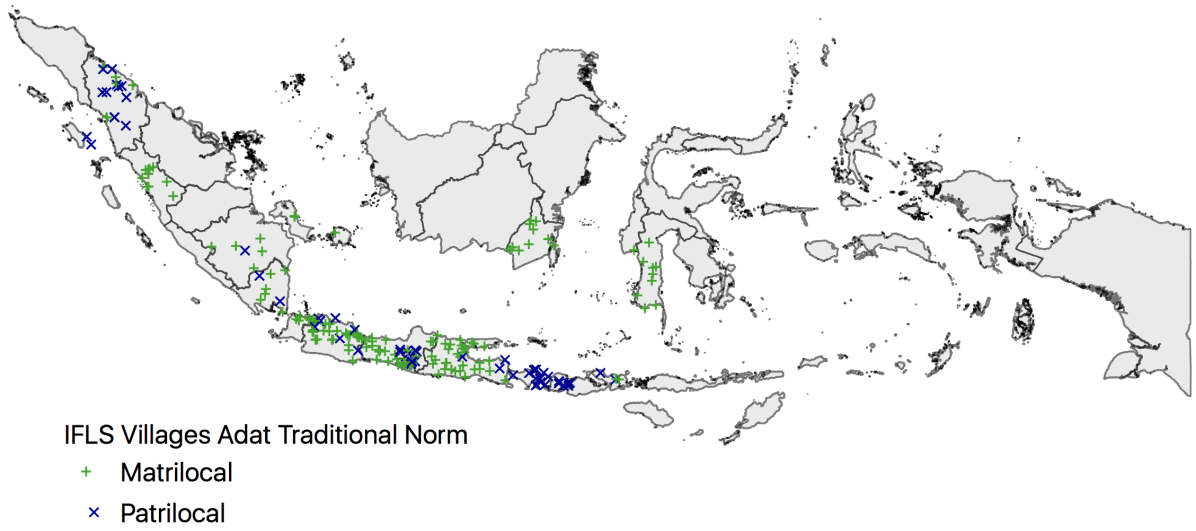
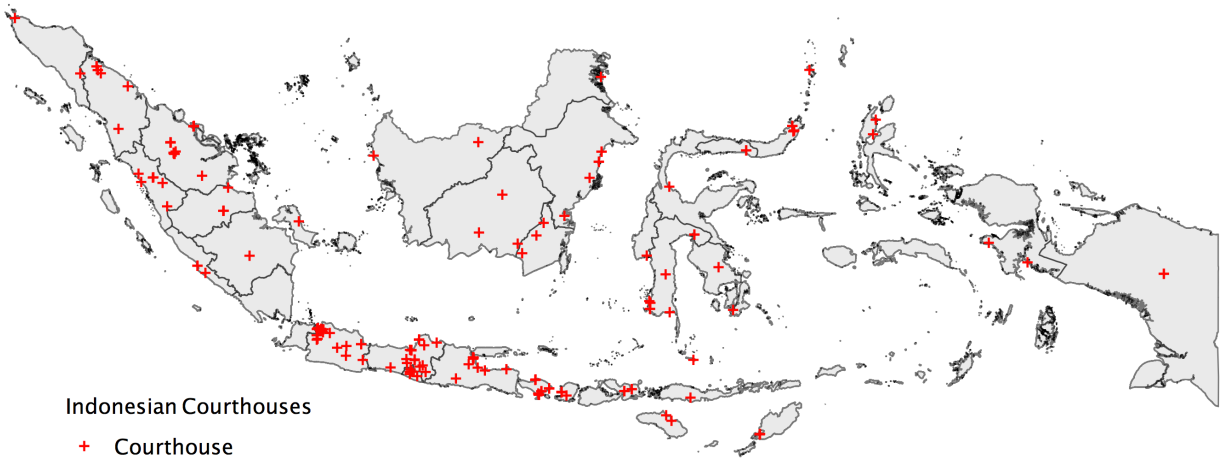



**Figure 3: Locations of Courthouses**



Second, we have discussed the relevance of traditional norms at the global level but can also stress the role of informal laws in the Indonesian context. The *Adat* rules shape many aspects of family life and are historically associated with ethnic differences in family-related behavior including marriage, inheritance, land-holding and dispute resolution. In particular, divorce and polygyny are relevant cases of tensions between *Adat* customs and religious/state laws, which have emerged during the colonial period and still persist (Buttenheim and Nobles, 2009).[9] Traditional residence norms, as the salient part of *Adat* rules, will be exploited in our empirical analysis: they can potentially affect families' attitudes towards divorce and, consequently, interact with the reform in a way that exacerbates ex-ante cultural differences.

Finally, we document the association between ancestral matrilocality and attitudes towards gender roles in Indonesia. We rely on the description of traditional norms by village-level *Adat* experts as provided in the 1997 IFLS. Simple estimations reported in Appendix Table B1 show that in case of divorce, villages of matrilocal tradition tend to favor women: (i) the ruling most often takes place in a religious/civil court, (ii) the husband has less often the right to claim pre-marriage assets or assets acquired since marriage, (iii) young children are less likely to follow the husband or his relatives. The opposite applies in patrilocal villages. Note, however, that divorce was relatively infrequent before the reform, both for matrilocal and patrilocal settings. Consistently, there was no clear pattern of matrilocal-advantage in marriage, at least for the empowerment outcomes that we use in our difference-in-difference approach. The advantage for women of matrilocal tradition arises *after* the reform, as can be seen by comparing panels A and B in Table B2. This point is discussed later and also in Levine and Kevane (2003).

## 2.3 The National Access-to-Justice Reform

Given the prevalence of Islam, around 98% of divorces in Indonesia are pronounced by religious courts (the remaining cases are heard by general courts).[10] A critical aspect is the ability to exercise one's rights. In particular, women's access to justice is positively related to gender equity developments (Alfitri, 2011), especially by making them more assertive about their right to divorce. However, these rights may be constrained by a lack of information, by the cost of court cases (half of Indonesian citizens live below $2 a day) or by the social consequences for women who institute divorce proceedings through the formal legal system. These conclusions have been reached in the 'Access and Equity' report produced by the Family Court of Australia, AusAID and other stakeholders. In this context, and following this report, the Indonesian

[9]The coexistence of Islam and matrilocality/matrilineality in Indonesia is discussed in Goettner-Abendroth (2013). Note that our results are robust to controlling for religion.

[10]Indonesia is characterized by an Islamic justice system in which religious courts have exclusive jurisdiction over cases where the parties are Muslim and which involve marriage-related cases (1974 Marriage Law). These cases mostly concern divorce and related matters including property division, child custody or spousal maintenance.

government has launched the National 'Access to Justice' Strategy in 2008-2010.

This program aimed at increasing access to the courts for women and disadvantaged groups (Sumner et al., 2011). It comprised three pillars. First, in 2008 and 2009, the *Justice for the Poor* scheme has been put in place, financially supported by AusAID, the Family Court of Australia and the World Bank. To alleviate the financial constraint of poor households, it has substantially increased religious courts' budgets in order to waive legal fees. It has also increased the capacities of circuit courts, namely courts travelling to subdistricts in order to hold hearings for family law cases in rural and remote areas. Second, the laws 48, 49 and 50 on Judicial Authority and General/Religious Courts were passed in 2009, requiring both types of courts to provide an extensive range of services that could improve women's access to courts (court fee waivers, legal aid services, legal assistance to clients who cannot afford lawyers). Finally, the Presidential regulation n.5 passed in 2010 has provided additional budget for fee-waiver schemes, circuit courts and legal aid services.

As illustrated in Figure A1, an increase in divorce is observed around the time of the reform. Maybe more impressive is the rise in divorce cases initiated by the wives, which exceed 70% of all divorces in the recent years. The courting reform has helped women trapped in bad marriage situations, which includes cases of domestic violence but also the cycles of illegal marriage, divorce or births often observed in rural areas. The reform has indeed improved the possibilities to legally register births, marriages and divorces, which are crucial steps for women to establish their legal identity and enforce their rights (for instance their entitlement to poverty alleviation and health care programs for themselves or their children, cf. Sumner and Lindsey 2011). The overall effect of the reform has been discussed in several reports and is summarized in Sumner et al. (2011), documenting a significant increase in the ability of women to access courts and exercise their rights. This effect goes through different channels including a dramatic increase in the awareness of formal legal actions, in public confidence in the legal system and in the financial possibility to use the justice system. For instance, the number of people accessing religious courts through fee waiver (resp. circuit courts) has been multiplied by 20 (resp. 6) in 2011 compared to 2007. The impact of the reform is qualitatively described as especially important for those living in remote areas, which motivates our triple-difference analysis.

# 3 Theoretical Framework

We suggest a conceptual framework to pinpoint the main mechanisms at stake. Adapted from limited commitment models (Mazzocco, 2007; Voena, 2015), it is used to elucidate the channels through which traditional norms and divorce laws may affect the probability of divorce and the position of women in marriage.

## 3.1 Culture, Divorce and the Reform

The implications of the reform are possibly very different across ethnic groups. When divorce is infrequent, as this was the case in Indonesia before the reform, there may not be much difference in effective outside options between women of matrilocal versus patrilocal tradition. However, a divergence may emerge between these groups when divorce becomes more acceptable or economically facilitated by a reform such as the one we study. Despite a marked increase in divorce overall, it is likely that patrilocal environments limit a woman's outside options, notably her ability to return home after a failed marriage. This gives less chances to patrilocal women to effectively escape from bad marriage or to renegotiate their living conditions after the reform. These intuitions are structured hereafter in a simple model.

## 3.2 Preferences

We consider a household made of two individuals, husband $H$ and wife $W$, who live two periods. They are married in period 1 and, in period 2, must decide whether to stay married and how to allocate resources between their individual private consumption, public consumption and savings. The household, denoted $h = M, P$, can either belong to a matrilocal $M$ or a patrilocal $P$ ethnic group. Both spouses derive utility from their own private consumption $c^{jh}$ and joint consumption of a public good $Q^h$. For the latter, the production function is written:

$$Q^h = f(x^{Hh}, x^{Wh})$$

with $x^{jh}$ the contribution of $j = H, W$ to the public good and $Q^h > x^{Hh} + x^{Wh}$, implying household returns to scale. Adding the time subscript, we write spouse $j$'s utility functions under marriage and divorce respectively as:

$$U^{jh}_{married}(c^{jh}_t, Q^h_t) = u^{jh}(c^{jh}_t, Q^h_t) + \chi^{jh}_t \quad \text{and} \quad U^{jh}_{divorced}(c^{jh}_t, x^{jh}_t) = u^{jh}(c^{jh}_t, x^{jh}_t) + \delta^{jh}$$

with $\chi^{jh}$ denoting the subjective taste for marriage of each spouse. Marriage tastes may evolve over time as follows:

$$\chi^{jh}_2 = \chi^{jh}_1 + \epsilon^{jh}_2$$

with a random component $\epsilon^{jh}_2$ distributed according to a unimodal probability density function $f()$ with a strictly monotone cumulative distribution function $F()$. Note that the distribution of marriage tastes does not depend on ethnic groups. The only source of asymmetry between matrilocal and patrilocal ethnicities is $\delta^{jh}$, a preference parameter that captures the psychological and resource support that each spouse may receive in case of divorce. We assume that

patrilocal women suffer from a stronger social stigma associated with divorce than matrilocal women. Formally:

**Assumption I:** $\delta^{WM} > \delta^{WP} = 0$.

This assumption is justified by several empirical facts. First, women of matrilocal tradition have a higher probability of being reintegrated in their family of origin after divorce.[11] Second, as reported in Table B1, traditional divorce norms in matrilocal villages foresee an equal division of assets, as frequently as in neolocal and ambilocal villages, while in patrilocal villages, the husband has a higher probability of capturing all the assets. Finally, as reported in Table B3, matrilocal women enjoy a greater share of the wealth of their family of origin through larger bequests.

We also assume that men suffer from a lower social stigma than women, irrespective of the ethnic group they belong to:

**Assumption II:** $\delta^{HM} = \delta^{HP} < \delta^{WM}$.

## 3.3 Income Dynamics and Budget Constraints

For simplicity, we assume that spouses have a permanent income $y^{jh}$ that does not change over time.[12] Both ethnic groups have the same expected total permanent household income. For both groups, the household budget constraint in each period is written:

$$A^h_{t+1} - (1 + r_t)A^h_t + c^{Hh}_t + x^{Hh}_t + c^{Wh}_t + x^{Wh}_t \leq y^{Hh}_t + y^{Wh}_t$$

where $A_1 = 0$ and, as assumed, $y^{jh}_1 = y^{jh}_2$. In this equation, there is joint asset accumulation, which is line with the community property regime in force in Indonesia. We discuss the problem of divorce in this regime. In case of divorce, the budget constraint of each spouse is written:

$$c^{jh}_2 + x^{jh}_2 + d \leq y^{jh}_2 + (1 + r_2)\frac{A^{jh}_2}{2}$$

where $d$ is the cost of divorce (e.g., legal fees, access to courts). This equation is consistent with the Indonesian family law according to which assets acquired during marriage are shared equally between spouses.[13] Divorce occurs in period 2 if no allocation within marriage can be found such that both spouses are better off in marriage than in divorce.

[11] 65% of divorced matrilocal women live with at least one of their relatives versus 55% of patrilocal divorced women, according to the IFLS5.

[12] Our results are unchanged if incomes are instead assumed to follow a random walk for both spouses.

[13] Assets brought individually at the time of marriage, inherited or received as gifts are not treated as marital common property and belong to each spouse. See extracts of the Civil Code, the Constitution and family-related laws including the Law No 1 of 1974 and Government Regulation No 9 of 1975 concerning Marriage. Source: search "Family law in Indonesia: overview" at https://uk.practicallaw.thomsonreuters.com

### 3.4 Problem of Divorce before the Reform

To understand how the reform modifies access to divorce, we make the following assumption:

**Assumption III:** Before the reform, the cost of accessing formal divorce, denoted $d^B$, is very high.

The previous assumption implies that formal divorce is very costly and that the probability to exit marriage is very low. This approximation fits well the reality of couples in Indonesia and the very low divorce rate observed before the reform. This assumption also implies that women's position in marriage before the reform does not differ substantially between couples of matrilocal versus patrilocal tradition. Again, this fact is verified empirically: there is little correlation between women's outcomes and matrilocal ancestry in 2007, i.e. before the reform, as detailed in Table B2.

Spouses have the possibility to exit marriage and, in line with the Indonesian law, we assume that divorce can be initiated unilaterally by each spouse. This means that we are in a limited commitment set-up. In period 1, the intra-household allocation is determined by the state variables $\omega_1 = \{y_1^{Hh}, y_1^{Wh}, \gamma^{Hh}, \gamma^{Wh}\}$ that enter the following value function:

$$\gamma^{Hh}[u^{Hh}(c_1^{Hh}, Q_1^h) + \chi_1^{Hh}] + \gamma^{Wh}[u^{Wh}(c_1^{Wh}, Q_1^h) + \chi_1^{Wh}]$$

where $\gamma^{Hh}$ and $\gamma^{Wh}$ are the husband's and wife's Pareto weights respectively. These weights are defined by social norms and do not change with outside options.
In period 2, the household stays in the marital union if there exists an allocation that makes both spouses better off than the divorce allocation. In this case, the second-period Pareto weights (bargaining power) also enter the vector of state variables, which becomes $\omega_2 = \{y_2^{Hh}, y_2^{Wh}, \chi_2^{Hh}, \chi_2^{Wh}, \tilde{\gamma}_2^{Hh}, \tilde{\gamma}_2^{Wh}\}$ where $\tilde{\gamma}_2^{jh} = \gamma^{jh} + \mu_2^{jh}$ with parameter $\mu_2^{jh}$ denoting the Lagrange multiplier associated to the following participation constraint:

$$U_{married}^{jh}[(c_2^{jh}, Q_2^h)|(\omega_2)] \geq V_{Divorced}^{jh}(\omega_2).$$

Maximizing the household value function in the second period under limited commitment implies that:

$$\frac{\frac{\partial U_{married}^{Wh}(c_2^{Wh}, Q_2^h)}{\partial c_2^{Wh}}}{\frac{\partial U_{married}^{Hh}(c_2^{Hh}, Q_2^h)}{\partial c_2^{Hh}}} = \frac{\gamma^{Hh} + \mu_2^{Hh}}{\gamma^{Wh} + \mu_2^{Wh}}.$$

Combining assumptions I-III, we can formulate the following predictions:

**Prediction 1.** *Before the reform, divorce rates are very low and matrilocal women have in expectation a slightly higher probability of divorcing than patrilocal women. Additionally,*

$E(\tilde{\gamma}_2^{WM}) > E(\tilde{\gamma}_2^{WP})$, *i.e. women from matrilocal origins have in expectation a slightly higher bargaining power in marriage than patrilocal women.*

### 3.5 Problem of Divorce after the Reform

We assume that the reform increases the accessibility of divorce equally for matrilocal and patrilocal women. Formally:

**Assumption IV:** After reform, the cost to access formal divorce, denoted $d^A$, is substantially reduced but divorce rates remain low (meaning that a person with modal tastes for marriage remains married).

Combining assumptions I-IV, we can formulate the following predictions:

**Prediction 2.** *After the reform, both the probability of divorce and women's bargaining power increase more for matrilocal women than for patrilocal women.*

Finally, we want to understand what happens when spouses face heterogeneous pre-reform divorce costs, in order to later exploit spatial variation in these costs as a source of heterogeneous reform effects. Theoretically, we posit low and high levels of pre-reform divorce costs, both of which are larger than the post-reform cost that is assumed, for simplicity, to be the same for all: $d^A < d_l^B < d_h^B$. Comparing the heterogeneous effects of the reform according to these ex-ante costs, we obtain the following predictions:

**Prediction 3.** *After the reform, the increases in both the probability of divorce and the bargaining power are larger for matrilocal women with a high ex-ante cost relative to matrilocal women with a low ex-ante cost. They are also larger than for patrilocal women (with both high and low ex-ante costs).*

Proofs are provided in Appendix D. Predictions 1 and 2 are precisely what we aim to test with the difference-in-difference analysis while prediction 3 is tested with the triple-difference approach.

## 4 Empirical Approach

### 4.1 Data

**IFLS Data.** The empirical analysis draws on data from the Indonesia Familiy Life Survey (IFLS). It is particularly well-suited for our study, as it contains extensive socioeconomic data at the individual level (including information on individuals' ethnicity, marital history, health status and subjective well-being) and at household level (including decision-making questions,

household composition and economy). IFLS samples also provide village-level information, notably the ethnic composition and prevalent kinship norms (including inheritance and post-marital residence norms), as communicated by *Adat* experts or community leaders. The panel dimension is appreciable as it allows us to control for household fixed effects. Moreover, the IFLS benefits from an exceptionally low attrition rate so the sample remains representative at every wave.[14]

**Selection.** We use IFLS data for the years 2000, 2007 and 2014. The 2007 and 2014 waves are used for the main analysis as they surround the Access-to-Justice reforms (2008-10). Data for the years 2000 and 2007 are used for checks of the parallel trend assumption. Our main analysis considers women's well-being and empowerment outcomes within stable marriages (i.e. not remarried) over 2007-2014.[15] We select non-polygamous households and exclude couples originating from two different ethnic groups when they correspond to different post-marital residence norms. Specific sample selections are used for the divorce analysis, as described hereafter.

**Outcome Variables.** We consider a series of women's and children's outcomes, as reported in the IFLS. This includes a dummy indicating whether a woman experienced at least one morbidity symptom in the last 4 weeks preceding the survey, the woman's number of living births, the adequacy of her own and her children's standard of living and food consumption on 1-3 scales, and the value of assets owned by the wife (in thousands of rupiah). We also standardize these outputs and take their average to obtain a summary index of women's well-being. Finally, we inspect empowerment variables, namely dummies indicating whether the wife and/or her potential relatives have the final say on key dimensions of household choices including contraception and large household expenditures.[16] This type of questions are to be taken with caution since they may depend on interview conditions (e.g. presence of male relatives) and reflect delegation of responsibility rather than women's genuine autonomy (Baland et al., 2020). Therefore, we present these results as a separate additional analysis.

**Treatment Intensity: Ethnicities' Traditional Post-marital Residence.** A traditional residence norm must be attached to each individual in the data according to her ethnicity. The norm traditionally followed by each ethnic group is not explicitly reported but can be proxied

[14]The IFLS is based on an initial sample representing about 83% of the Indonesian population living in 13 of the 27 Indonesian provinces in 1993. Extensive efforts were provided to track respondants when collecting data in each of the five waves (1993, 1997, 2000, 2007 and 2014) to reach a recontact rate of 92% in the last wave (Strauss et al., 2016).

[15]We could focus on stable couples over 2000-2014, i.e. stable over the period reform plus the pre-reform period used for parallel trend checks. Yet this sub-sample is about 44% smaller and implies specific selection issues (e.g. an aging sample, longer-lasting marriages, etc.). Nonetheless, we obtain similar conclusions when using it instead of our baseline selection. These unreported results are available from the authors.

[16]These dimensions seem relevant and have been used in previous studies on muslim countries (see for instance Sadania 2016 for Egypt or Lépine and Strobl 2013 for Senegal). Other aspects are deemed less relevant, such as decisions upon daily purchase and cooking.

following the approach of Buttenheim and Nobles (2009). Using IFLS information, we first pool villages according to their main ethnicity. The groups of villages with the same prevailing ethnicity are reported in Table A2. Then, we draw from the information contained in the IFLS about norms reported by the *Adat* experts or community leaders. In columns 3 to 5, we show the distribution of their answers, by ethnic group, to the question: "Putting aside economic constraints, where does the newly married couple live after the wedding?". We retain the modal answer for each ethnicity as the dominant residence norm. As reported in the last column, the mode is systematically matrilocality or patrilocality (rather than neolocality or ambilocality), so the ethnic group's traditional norm is a binary information in our baseline estimations. According to this approach, we obtain a proportion of about 83% (17%) individuals with a matrilocal (patrilocal) ethnic heritage, which is close to what is reported in aforementioned studies on Indonesia. We provide sensitivity analyses using the intensity of matrilocality scores (rather than the dichotomized measure) or an alternative match between ethnicities and norms based on the Ethnographic Atlas (as in Bau 2021). Finally, note that the traditional residence norm is a very significant predictor of a couple's actual residence choice, i.e. of its household composition, as shown in Table A3 for the year 2014.

**Geographical Heterogeneity: Distance to Courthouses.** As discussed, we also exploit geographic variation in addition to time and ethnic variation. For each IFLS household, we compute the distance to the nearest courthouse using GPS coordinates of its village and the GPS locations of all the courthouses in Indonesia, which are scrapped from the *Open Street Map* database using the *Overpass* API and previously represented in Figure 3. We identify the closest courthouse to each household in the data and construct a dummy variable 'close' equal to 1 if this distance is below the median distance between households and courthouses.

## 4.2 Empirical Methods

**Difference-in-Difference Estimations.** We denote $y_{it}$ the outcome for a woman in household $i$ observed at time $t$. As discussed, outcomes include marriage/divorce status as well as empowerment and well-being indices. The treatment variable, $Matrilocal_i$, is equal to 1 (0) if the woman's ethnic group is traditionally matrilocal (patrilocal). We adopt this standard binary setting for simplicity but nothing precludes women of patrilocal tradition to be affected by the reform: what our difference-in-difference approach captures is a potential difference in the *intensity of treatment* between the two groups. Given that we pool only two years, time effects are simply denoted by $Post_t$, which is equal to 1 for the period following the Access-to-Justice reform (year 2014) and 0 for the base period (year 2007). The estimation conducted on pooled years is described by the following equation:

$$y_{it} = \alpha + \beta Post_t \times Matrilocal_i + \gamma Post_t + \delta X_{it} + \eta Post_t \times X_{it} + \phi_i + \varepsilon_{it}. \quad (1)$$

The coefficient $\gamma$ on $Post_t$ captures the time trend in the outcome, which includes the effects of the reform that are common to all Indonesian ethnic groups. The coefficient $\beta$ on the interaction term is the difference-in-difference estimator, representing the extra effect of belonging to an ethnicity of matrilocal tradition (the 'treated') once the reforms are in place. Household fixed effects $\phi_i$ implicitly pick the average time-invariant differences between ethnic groups, and notably between those of matrilocal and patrilocal traditions (i.e. $Matrilocal_i$ is absorbed by the fixed effects). Covariates $X_{it}$ may improve the precision of the model but also control for the difference in time-varying observables between matrilocal and patrilocal ethnic groups, as previously discussed. Standard errors are clustered at the level of the women's village of origin to correct for potential geographical correlation in error terms.[17]

Treated and control groups are not randomly chosen and may be very different. Beyond standard common trend verification and the triple-difference analysis described below, we also focus on key empirical aspects to mitigate potential biases. First, we will see that women of matrilocal ethnic groups work less, are more often Muslim and urban. Hence, the effect we capture with a double difference might be due to different time trends in these variables – for instance differentiated responses to the reform between Muslim and non-Muslim – rather than between traditional residence norms. We rule out these alternative interpretations by including interactions $Post_t \times X_{it}$ that completely account for the time trends of specific religious or geographical groups in the DD estimation. Second, we have extensively checked that throughout the 2007-2014 period, there was no major (potentially confounding) policy or social change that could have affected women's empowerment in a differentiated way between couples of patrilocal versus matrilocal origins. Finally, the series of reforms might have been triggered by a pre-existing rise in power by matrilocal women, i.e. those who could best benefit from policy changes.[18]. However, we will see that pre-reform trends in divorce or empowerment are relatively flat. We have also documented the fact that the Access-to-Justice strategy was implemented at a national level, not targeting any particular social or ethnic groups, and that it was prompted by (arguably exogenous) international influence, notably that of the Family Court of Australia, AusAID and other stakeholders.

**Triple-Difference Estimations.** Our double-difference estimations rely on the differential response between ethnic groups to a uniform policy change at the national level. To go further, we bring in spatial variation that captures pre-reform costs of divorce and potentially leads to different responses to the reform among matrilocal women. In the same spirit, Ashraf et al. (2020) use time (before and after school constructions), ethnic variation (in bride price

[17]Villages of origin are where the woman's household lived in the first wave of the IFLS (1993). It seems reasonable to use such a variable for it is time-invariant in our estimations and presumably closer to the time of marriage.

[18]Endogeneous policy changes are discussed in Bertrand et al. (2004); Besley and Case (2000)

norms) and geographic intensity (number of constructed schools where the household lives). (Bau, 2021) exploits time (variation in pension plan exposure based on birth year), ethnic variation (in ancestral residency norms) and different geographic exposure (intensity of the policy rollout). Our triple-difference analysis combines time (before and after the legal reform), ethnic variation (in traditional residency norms) and geographic variation (costs incurred by the distance to a courthouse). We hypothesize an easier access to courts and a lower cost of justice for people living close to courthouses before the reform. As discussed above, the reform tends to correct these spatial differences by providing decentralized courts as well as financial support that particularly help those living far. As a result, and conjectured in our third prediction, heterogeneous policy contexts should translate in stronger reform effects for matrilocal women living with a limited access to justice. We write the corresponding empirical model as:

$$\begin{aligned} y_{it} &= \alpha + \beta^{close} Post_t \times Matrilocal_i \times Close + \beta^{far} Post_t \times Matrilocal_i \times (1 - Close) \quad (2) \\ &\quad + \gamma Post_t + \delta X_{it} + \eta Post_t \times X_{it} + \phi_i + \varepsilon_{it} \end{aligned}$$

where $Close$ is a dummy indicating whether the person's village is below the median distance to a courthouse.[19]

## 4.3 Descriptive Statistics and Uncontrolled Difference-in-Difference

**Controls.** Descriptive statistics for couples from matrilocal or patrilocal ethnic traditions are reported in Table A4 for both 2007 and 2014. We first describe standard socio-demographic variables $X_{it}$ used as controls in the estimations, including women's, men's and household characteristics. The lower part of the table focuses on additional controls used in the robustness checks and commented later. The main set of characteristics includes dummies for being a university graduate, currently working, living in rural areas, being muslim as well as age categories (on a 1-18 scale with a 5-year step) to capture life cycle effects. Women of ethnic matrilocal customs tend to work less and are more often urban and muslim than their patrilocal counterparts. These differences seem to be constant over time. As indicated, we not only control for the whole set of characteristics in the estimations but also for their differentiated effect over time in order to rule out alternative interpretations of the role of matrilocality.

**Outcomes.** Regarding outcomes, statistics are reported in Table A5. We distinguish well-being variables from 'final say' measures on key decisions. There is little difference between matrilocal and patrilocal groups in the pre-reform period (this is the case for 8 out of 9 variables and a F-test cannot reject the equality of both sets of mean values). Interestingly, strong differences emerge in the end period, both in terms of well-being and empowerment. The uncontrolled

[19]Note that both the $Matrilocal$ dummy and its interaction with $Close$ are captured by household fixed effects while courthouse distance is included in $X_{it}$ for its interaction with $Post$.

difference-in-difference ('raw DD') reported in the last column actually indicates that relative to the pre-reform period, the situation of women of matrilocal tradition significantly improves: less morbidity symptoms, more control over fertility (both number of birth and final say on contraception), better living conditions and nutrition for them and their children, more asset accumulation, more control over large household expenditure. DD estimations will refine these characterization by adding controls and fixed effects, but both sets of results are consistent. For each year separately, we also carry out simple estimations of these outcomes on a dummy for belonging to an ethnicity of matrilocal tradition and additional controls as in the double difference approach. Results in Table B2 show that there is not much difference between ethnic groups in 2007 but very strong differences after the reform.

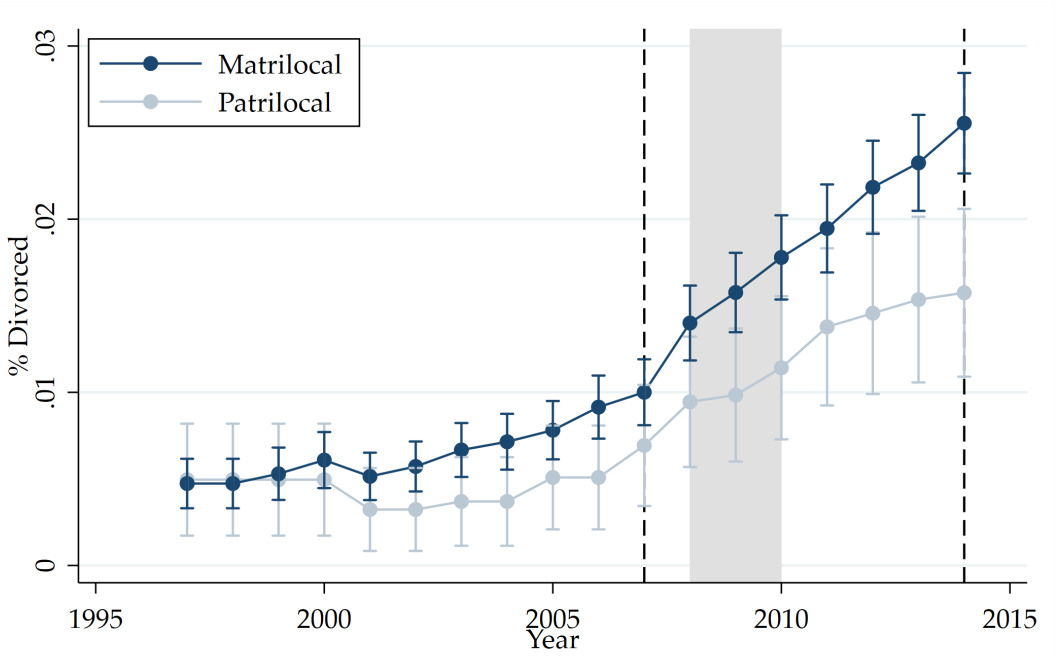
## 4.4 Graphical Preview

While the estimations presented thereafter focus on the IFLS years surrounding the reform (2007-2014), we can also provide graphical previews of the results using a slightly longer pre-reform period. It documents diverging dynamics between matrilocal and patrilocal households at the time of the reform and provides a longer-run perspective when checking parallel trends.

**Divorce.** In the case of divorce, retrospective information on marital status and the year of divorce allows us to calculate annual divorce rates, focusing on women who have been married at least once over the IFLS year 1997, 2000, 2007 or 2014. Results are reported in Figure 4. We also indicate the 2007 and 2014 years used in our main estimations (vertical dashed lines) as well as the reform period (grey area). Even if the trend in divorce increases slightly in the pre-reform period 2001-2007, the graph illustrates both a marked jump in divorce when the reform starts in 2008 and a steeper trend in divorce rates afterwards, at least in the group of matrilocal women. We also observe a broad parallel trend for matrilocal and patrilocal women before the reform (differences between matrilocal and patrilocal are never significant before 2008), followed by an increasing gap afterwards. The break is visible from the first year of the reform (2008) and the difference in the probability of divorce between ethnic groups becomes significant in 2009 (equality tests yield p-values less than 0.05 from 2009 onward). The gap between ethnic groups further increases after the policy change and until our last year of observation (2014), indicating that we capture a middle-run effect and that it is slightly larger than the short-run effect we would grasp if we focused on years just surrounding the reform.

**Empowerment and Well-being.** It is more difficult to represent longer trends in women's empowerment and well-being due to the fact that some of the indices are not available before 2007. We suggest an illustration based on a simpler version of our summary index, averaging the women's wellbeing and empowerment outcomes that are available in the IFLS 2 (1997) to 5 (2014). These include morbidity symptoms, the number of births, women's assets value

**Figure 4: Annual Divorce Trends using Ethnic Variation**




Using the retrospective information on year of divorce in the IFLS, we represent the proportion of divorced women among those married at least once in 1997, 2000, 2007 or 2014. We distinguish matrilocal and patrilocal. Black dashed lines indicate the IFLS years for our main estimations while the grey area indicates the reform period (2008-10).

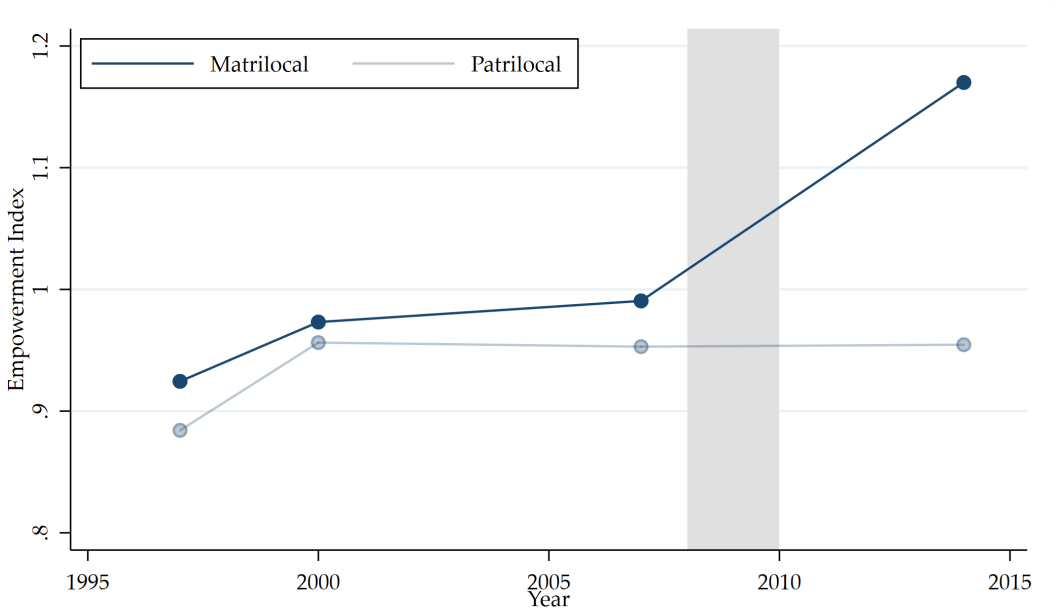
and women's final say on contraception and large household expenditure. Focusing on stable couples over 1997-2014, results in Figure 5 show a broad parallel trend before the reform and a sharp relative increase in women's empowerment and well-being among women of matrilocal tradition after the reform.

# 5 Results

## 5.1 Effect of the Reform on Divorce

**Difference-in-Difference Estimates.** We now move to econometric estimations, focusing first on the effect of the reform on divorce. We apply the difference-in-difference approach to women's marital status for the pooled years 2007 and 2014, using the specification outlined in equation (1). Estimates and relative effects are reported in Table 1. To assess the mere transitions from marriage to divorce, we first consider a sample of women married in the first year (model 1). Alternatively, we keep the whole sample of women observed in both 2007 and 2014 but selecting only those married or divorced, i.e. excluding the singles and widowed (model 2). We also combine both selection criteria (model 3) or keep the first one while combining both status as divorced or separated (model 4). All the models point to a significant effect of the reform on the probability of divorce for women of matrilocal ethnicities compared to their

**Figure 5: Long-Term Parallel Trend (1997-2007)**




This graph presents the long-term trend of the empowerment index combining all women's wellbeing and empowerment outcomes available in IFLS 2 (1997) to IFLS 5 (2014), including morbidity symptoms, number of births, women's assets, women's final say on contraception and large expenditures decisions. Focusing on stable couples over 1997-2014, the graph allows checking parallel trends over 1997-2007 and illustrate the (unconditional) policy effect between 2007 and 2014. The grey area indicates reform years (2008-10).

patrilocal counterparts. Relative to the pre-reform divorce rate in the control group, the effect represents an increase in divorce rates of 40%-66% across the different models. These results confirm the first part of prediction 2: an enhanced access to justice increases the probability of divorce relatively more among ethnicities of matrilocal tradition.

**Simple-Difference Estimates on Married Women and Parallel Trend Tests.** DD estimates identify differential switches in marital status between ethnic groups. An alternative modeling option is simply to measure the differential transitions to divorce between 2007 and 2014 in the subsample of women married in 2007. We consider both outcomes: divorce (model 5) or divorce and separation (model 6). These alternative estimations point again to a significant relative increase in divorce among women of matrilocal tradition and of a similar magnitude as DD estimates. In Appendix Table C1, we test the parallel trend assumption for the DD using the placebo sample, i.e. years 2000-2007, and the equivalent types of specification. We also test it for the simple difference approach. In all models, placebo estimates are not statistically different from zero, i.e. there is no sign of specific trends in divorce among ethnic groups of matrilocal tradition before the reform.

**Triple-Difference Estimates.** To exploit more sources of variation, we estimate a triple difference based on time (before and after the reform), ethnic-based residency norms and geographical variation, assuming that the ex-ante cost to access justice increases with the distance

**Table 1: Double-difference Effects on Women's Divorce Probability**

| Dep. Var. | Divorced | Divorced | Divorced | Divorced or Separated | Divorced | Divorced or Separated |
|---|---|---|---|---|---|---|
| Estimator | Difference-in-Difference | | | | Simple Difference | |
| Samples | Married before 2007 | Excluding singles and widowed | Excluding singles & widowed, married before 2007 | Married before 2007 | Married in 2007 | Married in 2007 |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Post | 0.0225 | 0.00575 | 0.0164 | 0.000335 | | |
| | (0.0231) | (0.00907) | (0.0160) | (0.0297) | | |
| Post × Matrilocal | 0.0103** | 0.0125*** | 0.0107** | 0.0122** | | |
| | (0.00434) | (0.00472) | (0.00486) | (0.00512) | | |
| Matrilocal | | | | | 0.00879*** | 0.00928*** |
| | | | | | (0.00287) | (0.00336) |
| **Relative effect** | 66.0% | 40.2% | 63.3% | 53.0% | 56.3 % | 40.3% |
| Observations | 12,752 | 17,390 | 10,892 | 12,752 | 8,801 | 8,801 |
| R-squared | 0.007 | 0.008 | 0.008 | 0.006 | 0.005 | 0.005 |
| Clusters | 318 | 319 | 318 | 318 | 319 | 319 |
| Individual FE | Yes | Yes | Yes | Yes | No | No |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | No | No |

Linear estimations of women's divorce status (dummy for divorced or divorced/separated). We apply the difference-in-difference approach to a selection of women observed in both 2007 and 2014, who were married in 1997 and/or 2000 (columns 1, 3 and 4) or married, divorced or separated in 2007 and 2014 (columns 2 and 3). Post is equal to 1 for observations in 2014 (post-reform) and 0 otherwise. We also estimate the potential increase in divorce in 2014 using women who were married in 2007 (columns 5 and 6). Matrilocal is a dummy indicating whether an individual belongs to a traditionally matrilocal ethnic group. Estimations include individual FE (absorbing matrilocal/ethnicity and religion in column 1-4), time-varying controls (women's characteristics: university graduate, currently working, living in rural areas and age group dummies using 5-year steps), a muslim dummy in columns 5 and 6, and interactions between Post and controls (including education, age, muslim, rural and employment dummy of women) in columns 1-4. Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

to courthouses. Results reported in Table 2 follow the same structure as in Table 1. They confirm a significantly positive effect of the reform for matrilocal women compared to patrilocal women. They also validate prediction 3 that matrilocal women living far from courthouses are those responding the most to the reform. We report p-values for equality tests between triple-difference coefficients for close and far matrilocal women. For those living far from (close to) a courthouse, the probability of divorce increases by 66%-175% (22%-61%) across specifications. Placebo checks for triple-difference estimations are reported in appendix Table C2 and show reassuring results.

**Table 2: Triple-difference Effects on Women's Divorce Probability**

| Dep. Var. | Divorced | Divorced | Divorced | Divorced or Separated | Divorced | Divorced or Separated |
|---|---|---|---|---|---|---|
| Samples | Married before 2007 | Excluding singles and widowed | Excluding singles & widowed, married before 2007 | Married before 2007 | Married in 2007 | Married in 2007 |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Post × Matri. × Close | 0.0103* | 0.00886 | 0.00964 | 0.00846 | | |
| | (0.00609) | (0.00603) | (0.00688) | (0.00657) | | |
| Post × Matri. × Far | 0.0177*** | 0.0158*** | 0.0201*** | 0.0164** | | |
| | (0.00601) | (0.00586) | (0.00656) | (0.00672) | | |
| Matri. × Close | | | | | 0.00501 | 0.00406 |
| | | | | | (0.00426) | (0.00483) |
| Matri. × Far | | | | | 0.0111** | 0.0115** |
| | | | | | (0.00444) | (0.00514) |
| **Relative Effects:** | | | | | | |
| **Close** | 60.9% | 22.7% | 58.4% | 31.9% | 53.3% | 31.0% |
| **Far** | 175.2% | 66.1% | 167.5% | 130.1% | 165.7% | 85.8% |
| Observations | 9,326 | 12,712 | 7,860 | 9,326 | 6,440 | 6,440 |
| R-squared | 0.009 | 0.009 | 0.011 | 0.009 | 0.006 | 0.007 |
| Clusters | 266 | 267 | 266 | 266 | 267 | 267 |
| T-Test Equal. (p-val.) | 0.013 | 0.036 | 0.009 | 0.021 | 0.052 | 0.116 |
| Individual FE | Yes | Yes | Yes | Yes | No | No |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | No | No |
| Post × Distance | Yes | Yes | Yes | Yes | Yes | Yes |

Linear estimations of women's divorce status (dummy for divorced or divorced/separated). We apply a triple-difference approach to the same selections of women and with the same set of controls as in Table 1 plus new ones. Close/Far are dummies indicating whether the person lives below/above the median distance to the courthouse. Columns 1-4 additionally include Post interacted with the distance to courthouse (the latter is absorbed by the individual FE, except and columns 5-6 where it is explicitly added as control). We report estimates and the relative policy effect calculated in % of mean outcome for patrilocal group in 2007 (pre-reform) in each close/far group. Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01. We test the equality of the relative effects for individuals close versus far from courthouses (p-value of t-tests reported).

## 5.2 Effect of the Reform on Women's and Children's Outcomes

Previous results establish that by fostering access to justice, the reform has significantly increased divorce rates among women of matrilocal ethnicities. The second part of prediction 2 entails that in stable marriages, matrilocal women also experience a relative gain in bargaining power and well-being compared to patrilocals.[20]

[20]Note that this result derives both from a more frequent renegotiation among matrilocal ethnic groups and from the selection effect (matrilocal women divorce more so that those who stay in marriage have obtained

**Difference-in-Difference Estimates.** We examine this prediction first using the double difference approach laid out in equation (1) and applied to women in stable marriages, i.e. spouses observed married in both 2007 and 2014. Results are presented in Table 3. Estimates confirm that matrilocal women experience a relative improvement in their living conditions.[21] This is true for the summary index (column 1) and all the specific outcomes (columns 2-8): relative to the trend for patrilocal women, matrilocal women experience a decrease in morbidity symptoms, a reduction in the number of births, an improvement in their (and their children's) living standards and food consumption and a rise in their assets. The magnitude of these effects, relative to the pre-reform control group outcome, is substantial and similar across outcomes of the same type, notably a reduction of 8%-13% in negative health outcomes and number of births and an increase of 7%-10% in women's and children's living standards and nutrition.[22]

Results regarding 'final say' on contraception and large expenditure decisions are to be taken with more caution due to the subjective nature of these empowerment measures (Baland et al., 2020). Nonetheless, these measures tend to corroborate previous findings and a favorable renegotiation in the group of matrilocal women. Table C3 presents estimates based on alternative ways to measure empowerment. The baseline estimates (columns 1 and 5) are obtained for final say outcomes defined as dummies equal to 1 if the wife and/or her relatives decide (while the husband does not have any say) and 0 otherwise. We also suggest a more restrictive definition in which the variable is equal to 1 if the woman decides alone (columns 2 and 6), an alternative measure where this is the wife's answer about who decides on each item that is considered (columns 3 and 7), or a combination of both (columns 4 and 8). All these models convey large relative effects in favor of matrilocal women, ranging from 64% to 105%.[23]

**Parallel Trend Tests and Repeated Cross-Section Estimates.** We have broadly verified parallel trends for a simplified summary index over the years 1997-2000-2007. Focusing on the 2000-2007 period allows checking it for all the detailed outcomes and adding controls. Results are reported in Table C4. Placebo estimates for the pre-reform period are insignificant. Another check concerns model specification. Alternatively to panel estimations on stable marriages, we replicate double-difference analyses on repeated cross-sections for 2007 and 2014. The only

favorable renegotiated conditions, cf. appendix D).

[21] For most of the outcomes, the coefficient on Post is not statistically different from zero. It suggests that, if no other forces affect women's position within the private sphere over time, women of patrilocal ethnicities do not benefit much from the reform. This is consistent with the flat trend for patrilocal in Figure 5.

[22] These magnitudes are very much in line with the raw DD calculations presented above (see Table A5). For instance, the raw DD for women's living standards (.150) is of a similar order as the DD estimate (.191). It is also similar to the difference in the matrilocal effect in 2014 compared to that effect in 2007 in the cross-sectional estimations of Table B2 (.108-(-.085)=.193). The latter comparison boils down to a DD on stable couples 2007-2014 but when we ignore the panel dimension and household fixed effects.

[23] This magnitude is due to very low pre-reform scores. For instance for decisions upon large expenditures, women of matrilocal (patrilocal) ethnicities had an extremely low empowerment before the reform, i.e. they were decision-makers in only 6.4% (5.3%) of the cases in 2007. Our estimates point to a near doubling, which corresponds to a modest increase of 5.5 percentage points for matrilocal women.

selection criterion is now the focus on married women. In this way, we verify that our baseline fixed-effect estimates do not characterize stable couples too specifically. As seen in Table C5, results are very similar to the baseline,[24] both for the summary index and any of the specific outcomes.[25]

**Triple-Difference Estimates.** We turn to the triple-difference estimations. We first check that our estimates are not affected by potentially different time trends for people living far from or near the courts, which could confound our interpretation. We find that the addition of *Post* interacted with the distance to the nearest courthouse does not alter our results. We also check that the reduction in sample size in this case does not affect our conclusions.[26] Triple-difference estimates are reported in Table 4. For almost all of the outcomes, the relative effects of the reform are larger for those living further away. We show t-tests that convey significant differences between distance groups in general (summary index) and for most of the specific outcomes. Even when the difference is not statistically significant, e.g. for female food consumption or assets value, the gap still goes in the same direction. These results indicate that the reform tends to benefit more to women living far from courthouses and for whom the transaction costs of divorce used to be high. As discussed, this is consistent with reported information about the reform effect and the reform's main features, including better awareness in the existence of legal help, financial support (fee-waivers that reduced the cost of legal procedures) and decentralized access to justice (circuit courts present in more remote regions). Parallel trend checks for triple differences are reported in Table C6.

[24] For instance in the example of living standards used in footnote 21, we obtain here a close estimate of .203.

[25] Note that in additional, unreported estimations, we also test the effect of the reform on female labor market participation and find no differential effect among women of matrilocal ancestry. Admittedly, it is unclear which effect to expect. An increased risk of divorce may benefit to women in stable marriage and increase their leisure time – this is the finding of Voena (2015) for women in US states that shift to unilateral divorce, when property is divided equally. Alternatively, the risk of divorce may also push them to take up a job as a security in case of divorce, which is particularly true when female participation is low (see Bargain et al. 2012 in the context of divorce legalization). In the case of Indonesia, the pre-reform participation rate of about 50% was not particularly low compared to other muslim countries. Moreover, work is not necessarily seen as an insurance against poverty in case of divorce, since women's activities are typically informal and bring only complementary income (Verick, 2018).

[26] The sample is reduced by around 20% due to the fact that distance information is available only for those who live in the village of origin.

**Table 3: Double-difference Effects on Women's Outcomes (Stable Couples, 2007-14)**

| | Index | Morbidity symptoms | Number of births | Standard of living | Food consumption | Children's std. of living | Children's food conso. | Wife's assets value |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Post | -0.285 | 1.327** | 2.577 | 0.467 | -0.563 | -0.0617 | 0.267 | 10,203 |
| | (0.537) | (0.529) | (3.411) | (0.505) | (0.401) | (0.431) | (0.565) | (33,483) |
| Post × Matrilocal | 0.246*** | -0.0887*** | -0.233** | 0.191*** | 0.188*** | 0.152*** | 0.140*** | 10,689** |
| | (0.0528) | (0.0319) | (0.0915) | (0.0536) | (0.0507) | (0.0541) | (0.0500) | (5,286) |
| **Relative effect** | 25.4% | -12.6% | -7.6% | 9.7% | 9.3% | 7.6% | 6.9% | 47.1% |
| Observations | 6,678 | 11,840 | 11,490 | 11,546 | 11,548 | 6,730 | 6,728 | 11,870 |
| R-squared | 0.061 | 0.047 | 0.348 | 0.043 | 0.059 | 0.039 | 0.073 | 0.083 |
| Clusters | 316 | 318 | 318 | 318 | 318 | 316 | 316 | 318 |
| Household FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Difference-in-difference estimations of well-being and empowerment indicators on a sample of stable couples surveyed in both 2007 and 2014. Post is equal to 1 for 2014 (post-reform) and 0 for 2007 (pre-reform). Matrilocal is a dummy indicating whether an individual belongs to a traditionally matrilocal ethnic group. All estimations include household FE (absorbing Matrilocal/ethnicity and religion), time-varying controls (women's and husband's characteristics: university graduate, currently working, living in rural areas and age group dummies using 5-year steps) and interactions between Post and controls including education, age, muslim, rural and employment dummy of husband and wife). Well-being outcomes: the summary index is the average of normalized specific outcomes, 'morbidity symptoms' is a dummy indicating whether a woman experienced at least one morbidity symptom in the last 4 weeks preceding the survey, 'number of births' is the woman's number of living births, 'standard of living' and 'food consumption' are the adequacy of her standard of living and food consumption on a 1-3 scale, and identical measures for her children, and 'assets value' is the value of the assets owned by the woman in thousands of rupiah. The relative effect is calculated in % of mean outcome for patrilocal group in 2007 (pre-reform). Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

## Table 4: Triple-difference Effects on Women's Outcomes (Stable Couples, 2007-14)

| | Index | Morbidity symptoms | Number of births | Standard of living | Food consumption | Children's std. of living | Children's food conso. | Wife's assets value |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Post × Matri. × Close | 0.218*** | -0.070 | -0.129 | 0.137** | 0.161*** | 0.138** | 0.143*** | 8,291 |
| | (0.0632) | (0.043) | (0.104) | (0.056) | (0.055) | (0.064) | (0.054) | (6,117) |
| Post × Matri. × Far | 0.316*** | -0.109*** | -0.277*** | 0.204*** | 0.191*** | 0.239*** | 0.213*** | 14,023** |
| | (0.0610) | (0.042) | (0.105) | (0.058) | (0.056) | (0.060) | (0.052) | (6,184) |
| **Relative Effects:** | | | | | | | | |
| Close | 21.0% | -9.9% | -4.3% | 6.8% | 7.8% | 6.6% | 6.9% | 41.9% |
| Far | 34.4% | -15.5% | -8.1% | 10.6% | 9.8% | 12.3% | 10.7% | 72.6% |
| Observations | 4,716 | 8,776 | 8,474 | 8,538 | 8,540 | 4,746 | 4,746 | 8,710 |
| R-squared | 0.070 | 0.061 | 0.339 | 0.042 | 0.053 | 0.049 | 0.086 | 0.086 |
| Clusters | 258 | 263 | 263 | 263 | 263 | 258 | 258 | 263 |
| T-Test Equal. (p-val.) | 0.004 | 0.104 | 0.045 | 0.057 | 0.254 | 0.015 | 0.112 | 0.296 |
| Household FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Distance | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Triple-difference estimations on a sample of stable couples surveyed in both 2007 and 2014. Post is equal to 1 for 2014 (post-reform) and 0 for 2007 (pre-reform). Outcomes and 'Matrilocal' are defined in Table 3. Estimations include household FE (absorbing matrilocal and muslim dummies), controls defined in Table 3 plus Post interacted with the distance to courthouse. 'Close' is a dummy indicating individuals living close to the courthouse (i.e. below or equal to the median of distance). 'Far' is a dummy indicating individuals living far to the courthouse (i.e. above the median of distance). The relative effect are calculated in % of mean outcome for patrilocal group in 2007 (pre-reform) in each group of distance to courthouse. Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01. T-test of equal relative effects between individuals that are close and far from courthouse (p-value).

## 5.3 Additional Robustness Checks

We provide a series of additional estimations that aim to test the robustness of our results and interpretations. We focus in particular on the sensitivity to model specification, the link with other kinship practices and the definition of the treatment variable.

**Alternative Pathways.** We check if our results are sensitive to the set of controls included in the model. We have already verified that our estimates were not sensitive to the inclusion of $Post_t \times X_{it}$ interaction terms, especially for $X_{it}$ such as being Muslim, rural or with an employed women, i.e. variables that are correlated with traditional matrilocality (cf. Table A4). In addition, Table C7 reports supplementary estimations with new controls (the first row just reproduces benchmark estimates for comparison). Javanese represent the main ethnic group and account for 56.5% of matrilocal individuals in our sample. We find that adding specific time trends for this group, i.e. $Post_t \times Javanese_i$, does not drive our results. Another aspect is the mixed composition of couples in terms of ethnicity. Mixed couples (with the same residence norm) happen to be more often present in matrilocal families. Reassuringly, explicitly controlling for $Post_t \times Mixed\ Ethnicity_i$ or not does not affect our results. Mixed couples leading to different norms are treated hereafter. Next, potential confounders could be time-varying unobservables pertaining to shocks, which would affect matrilocal and patrilocal groups differently. We control for $Natural\ Disaster_{it}$, a dummy indicating whether an individual lives in a village that has experienced a natural disaster in the 5 years preceding the survey, and for the interaction with $Post_t$. The results are barely modified.

**Links to Other Traditional Norms.** Ancestral matrilocality is closely related to other cultural traits that may have specific effects on gender roles, as abundantly discussed. This is notably the case of matrilineality and bride price, which receive specific attention hereafter. Note that traditional practices are implicitly accounted for in the fixed effects. Yet they may also carry some time-varying unobserved factors that potentially affect our interpretations. Regarding the practice of bride price, its correlation with women's empowerment is ambiguous (Ashraf et al., 2020). This norm may entail that the wife's family must pay back the money following a divorce, which would weaken the response to the reform. We use information from the *Adat* questionnaire in the IFLS and do not find any significant village-level correlation between traditional matrilocality and traditional bride price practice.[27] Moreover, as shown in Table C7, our results remain unchanged when we additionally control for $Post_t \times Bride\ Price_i$. Turning to matrilineality, it might play a specific role. For instance, women in matrilineal structures benefit from better outside option through a higher support from their relatives and a more central social position in the kinship structures (Lowes, 2018, Loper, 2022). The *Adat* questionnaire does not provide information on descent rules but we build on Ashraf

[27] See Table B3 and Bau (2021). Note that the rate of bride price practice is the same, around 86%, in both matrilocal and patrilocal villages.

et al. (2020) to match 16 out of 21 ethnic groups in our final sample with ethnic groups in the *Ethnographic Atlas*.[28] As Bau (2021), we find a correlation between matrilocality and matrilineality but it is driven by a particular ethnicity (the *Minangkabau*), which is ancestrally matrilineal and matrilocal. Consequently, our last check consists in replicating our estimations on the homogeneous subsample of 15 patrilineal ethnic groups (95% of our initial sample). Estimates reported in the last rows of Table C7 are very close to the baseline. They convey that the variation in residence norm, more than any other norm, is what matters in the heterogeneous response to the reform.[29]

**Alternative Measures of Matrilocality.** So far, we have defined traditional residency norms using the modal answer of villages sharing the same main ethnicity. It resulted in a binary variation between traditional matrilocality and patrilocality, which was convenient for the interpretation of the results. Table A2 shows that traditional residence norms are slightly more nuanced for some ethnic groups. Therefore, we suggest an alternative treatment variable, *Matrilocal Intensity*, based on the proportion of villages with matrilocal ethnic groups.[30] For the different outcomes of interest, results in Table C9 point to very similar relative effects in terms of sign and significance.

Another sensitivity exercise pertains to the issue of mixed couples with different residence norms. Recall that our baseline discards them. We check that our results are nonetheless robust to their inclusion in the sample. Time-invariant characteristics of being a couple with different ethnicities and mixed norms are captured by fixed effects. The sample size increases by about 4% when including these couples and Table C10 suggests that estimates are broadly unchanged. We check that controlling for possible time-specific effects, i.e. adding $Post_t$ time a dummy for these contrasted ethnicities, does not affect the results. Estimates are also qualitatively similar whether we use the wife's or the husband's ethnic norm to define treatment.[31]

A last check pertains to the definition of matrilocality using alternative data sources. Our baseline strategy was motivated by the use of ethnic-specific norms that are consistent with the IFLS and with the Indonesian context, namely the village norms reported by the *Adat* experts in the data. Rather than such a 'traditional' norm, we can alternatively use an 'ancestral' norm as the one informed in the *Ethnographic Atlas* and used in leading contributions (Ashraf et al. 2020, Bau 2021). For this sensitivity check, we focus on the Atlas variable about residence norms "in first years of marriage", which is the closest to the *Adat* traditional norm variable.

[28] The 5 unmatched ethnic groups are relatively small in terms of sample size. A replication of our estimations on the 16 ethnic groups yields estimates that are very close to baseline.

[29] Note that these different sensitivity checks are presented here for the double-difference analysis but have also be replicated with the triple-difference approach and point to similar conclusions: see Table C8.

[30] For instance, this intensity takes the value of .64 for the Jawa, which is the proportion of Javanese villages reporting traditional matrilocality in Table A2.

[31] About 98% of matrilocal wives have a matrilocal husband and about 89% of patrilocal wives have a patrilocal husband.

Reassuringly, we find a strong correlation between the *Adat* and the *Atlas* measures. Precisely, the exact same norm is found for 14 of the 17 ethnic groups that can be matched between the IFLS and the Atlas (they represent 93% of the sample if we use population weight). Slightly differently, Bau (2021) considers residence practice in the long-run and not just after marriage (as she focuses on retirement reforms in connection with the fact that matrilocality increases old age support). We replicate our main estimations on the subsample of individuals coming from ethnic groups with the same definition of residence norm as in Bau (2021) and find qualitatively similar results, as reported in Table C11.

# 6 Conclusions

Social scientists increasingly recognize the role played by traditional norms in shaping individual responses to development policies (WorldBank, 2015). This paper contributes to this nascent literature by focusing on legal reforms that may promote access to justice and embolden women in the exercise of their rights. We examine such a reform in the context of Indonesia. In this country, ethnic heterogeneity in terms of gender roles transpires through the type of traditional residence norms after marriage, namely matrilocality or patrilocality. We test whether potential differences in outside options across ethnic-based norms of residency trigger different responses to the access-to-justice reform. Consistently with theoretical predictions, we find that women originating from customary matrilocal ethnic groups tend to divorce more after the reform, relative to those from patrilocal tradition. It also appears that a subsequent renegotiation takes place in stable marriages so that women from matrilocal groups experience a significant increase in well-being and empowerment. Triple-difference estimates confirm our interpretation and the larger increase in the use of legal services, among matrilocal women, for those living far from courthouses. This is suggestive evidence of the role of specific policy features that helped to reach out to poor rural families (circuits courts) but also of the fact that these women were particularly concerned by the high cost of divorce before the reform and hence especially close to the mechanism described in our model.

Our study sheds some light on how cultural norms may interact with development policies and legal changes. We suggest that the progressive legal reform under study compounds with social norms in a way that makes it effective only for some segments of the population, exacerbating the potential cultural differences between ethnicities with different post-marriage residence norms. The general implication of these results is that legal reforms can exclude subpopulations who, because of informal norms, cannot takeup legal services as much as others.[32] Policies, even when designed nationally, should be tailored to specific cultural contexts.

[32]Our results also contribute to the analysis of traditional norms per se. In particular, patrilocality appears as a norm that not only reduces parents' incentive to invest in daughters' human capital (Bau, 2021) but also tends to have persistent consequences by limiting women's legal opportunities in the longer run.

Future research should better explore policy designs and examine the way to target specific groups on the basis of cultural traits. Consolidating evidence is also needed on the more general role of legal rights and divorce laws in the context of low-income countries. This paper is one of the few contributions in this direction. The set-up of poor countries is especially interesting as it is often characterized by a great cultural diversity and, at the same time, a low incidence of divorce and room for improving women's autonomy. Future work could exploit exogenous changes in policies or demographic upheavals that affect women's outside options in a variety of countries and cultural contexts.

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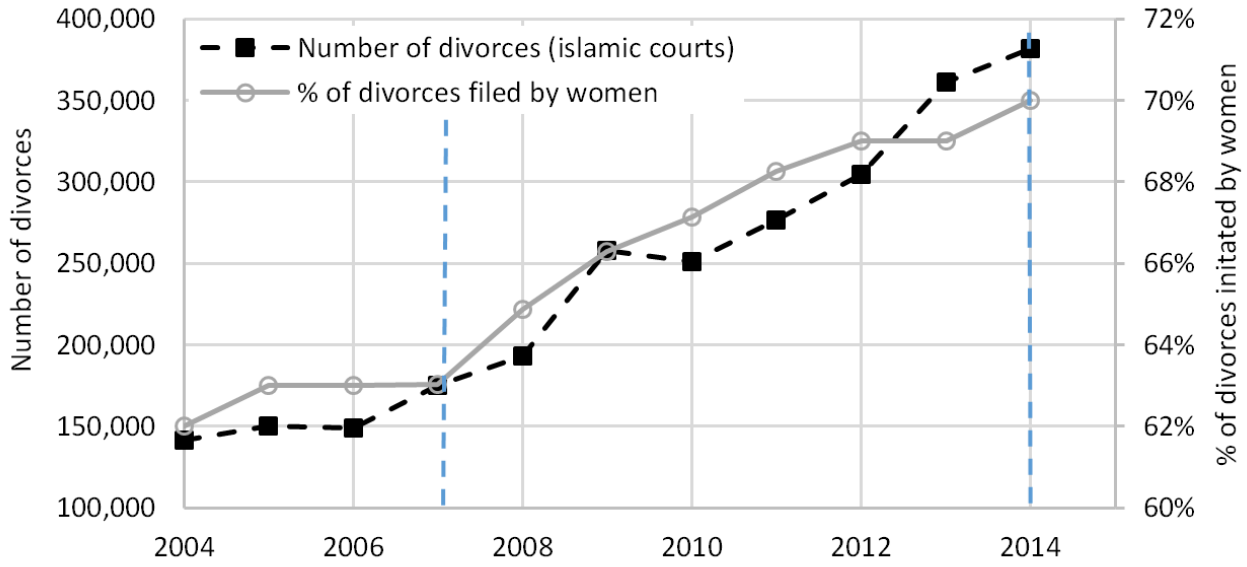
# Appendix A. Descriptive Statistics

**Figure A1: Divorce Trends around Reform Time**




Source: Statistics Indonesia (*Badan Pusat Statistik*). Vertical dashed lines: years of observation (2007 and 2014 IFLS).

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**Table A1: Worldwide Correlations between Ancestral Matrilocality and Contemporaneous Pro-women Outcomes**

| | Men do not have more rights to a job when jobs are scarce | Men do not make better business executives | Women have the same rights as men | Divorce justifiable | Women's economic partici -pation | Women's health and survival | Share of firms with female ownership |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Matrilocality | 0.167* | 0.205** | 0.322** | 0.457* | 0.116*** | 0.005** | 0.140** |
| | (0.089) | (0.085) | (0.160) | (0.244) | (0.033) | (0.002) | (0.060) |
| R-squared | 0.618 | 0.636 | 0.580 | 0.764 | 0.496 | 0.204 | 0.252 |
| Matrilocality | | | | | | | |
| × 1st Tertile | 0.359*** | 0.390*** | 0.495** | 0.604** | 0.163*** | 0.009** | 0.179** |
| | (0.109) | (0.113) | (0.214) | (0.255) | (0.043) | (0.004) | (0.069) |
| × 2nd Tertile | 0.054 | 0.071 | 0.200 | 0.423 | 0.082** | 0.004 | 0.126* |
| | (0.117) | (0.111) | (0.192) | (0.279) | (0.035) | (0.003) | (0.063) |
| × 3rd Tertile | 0.025 | 0.133 | 0.254 | 0.211 | 0.084** | -0.001 | 0.048 |
| | (0.126) | (0.148) | (0.423) | (0.531) | (0.035) | (0.003) | (0.070) |
| R-squared | 0.673 | 0.685 | 0.592 | 0.768 | 0.544 | 0.259 | 0.294 |
| Observations | 73 | 72 | 71 | 73 | 70 | 70 | 51 |
| Mean Dep. Var. | 1.891 | 2.370 | 8.093 | 4.762 | 0.643 | 0.972 | 0.347 |

Country-level linear estimates of contemporary women's outcomes on the relative degree of matrilocality, calculated as the proportion of citizens from ancestral matrilocality minus the proportion from ancestral patrilocality (source: Alesina et al., 2013). Outcomes in columns 1-4 are drawn from the World Value Surveys (WVS) modules on self-reported attitudes towards gender roles, asking whether: (1) men have more rights to a job when jobs are scarce (from 1-disagree to 3-agree), (2) men make better business executives (from 1-disagree to 4-agree), (3) gender equality as essential characteristics of democracy (approval on a 1-10 scale), (4) divorce justifiable (approval on a 1-10 scale). Outcomes in column 5-7 are indices ranging from 0 to 1, drawn from the 2016 World Economic Forum (columns 5-6) and the World Bank Enterprise Surveys (column 7). They include: (5) an index based on the participation gap, the remuneration gap and the advancement gap, (6) an index measuring gender difference in sex ratio at birth and in healthy life expectancy, (7) the percentage of firms with some female ownership (country surveys conducted over 2003-2010). All the regressions include country-level controls: log GDP/capita and its square, proportion of pre-industrial plough use, ancestral suitability for agriculture, fraction of ancestral land that was tropical or subtropical, ancestral domestication of large animals, and estimations based on the WVS also include average respondants' characteristics (gender, age, age squared and education). In the lower panel, we provide the same estimates conditional on the intensity of divorce in the country (tertiles of the country proportion of divorced-separated respondants). Indonesia is ranked 8th from the bottom and hence below to the first tertile. Robust standard errors are reported in brackets. Significance levels: * p<0.10, ** p<0.05, *** p<0.01. Equality tests show that in 5/7 cases, the first tertile is significantly different from the rest of the distribution.

**Table A2: Determination of Traditional Post-Marital Residence Norm by Ethnicity**

| Ethnicity | # Villages | Matrilocal (%) | Patrilocal (%) | Ambi/Neolocal (%) | Norm |
|---|---|---|---|---|---|
| Jawa | 109 | 64.22 | 17.43 | 18.35 | Matrilocality |
| Sunda | 40 | 67.50 | 7.50 | 25.00 | Matrilocality |
| Bali | 15 | 0.00 | 86.67 | 13.33 | Patrilocality |
| Minang | 12 | 100.00 | 0.00 | 0.00 | Matrilocality |
| Banjar | 10 | 100.00 | 0.00 | 0.00 | Matrilocality |
| Betawi | 10 | 70.00 | 20.00 | 10.00 | Matrilocality |
| Bugis | 9 | 77.78 | 11.11 | 11.11 | Matrilocality |
| Sasak | 9 | 0.00 | 100.00 | 0.00 | Patrilocality |
| Madura | 6 | 83.33 | 16.67 | 0.00 | Matrilocality |
| Melayu | 6 | 50.00 | 16.67 | 33.33 | Matrilocality |
| Batak | 4 | 25.00 | 75.00 | 0.00 | Patrilocality |
| Bima | 4 | 50.00 | 25.00 | 25.00 | Matrilocality |
| Cirebon | 2 | 100.00 | 0.00 | 0.00 | Matrilocality |
| Makassar | 2 | 100.00 | 0.00 | 0.00 | Matrilocality |
| Nias | 2 | 0.00 | 100.00 | 0.00 | Patrilocality |
| Palembag | 2 | 100.00 | 0.00 | 0.00 | Matrilocality |
| South Sumatra | 2 | 0.00 | 100.00 | 0.00 | Patrilocality |
| Toraja | 2 | 100.00 | 0.00 | 0.00 | Matrilocality |
| Dayak | 1 | 100.00 | 0.00 | 0.00 | Matrilocality |
| Sumbawa | 1 | 0.00 | 100.00 | 0.00 | Patrilocality |
| Tionghoa | 1 | 0.00 | 100.00 | 0.00 | Patrilocality |

Villages are grouped according to their dominant ethnic group. The table reports, for each ethnic group, the distribution of villages' traditional norms of post-marriage residence (matrilocal, patrilocal or ambilocal/neolocal). Traditional norms are drawn from the declaration of local *Adat* experts in the 1997 IFLS. We attribute a residence norm to each ethnic group, defined as the modal answer from this distribution.

**Table A3: Traditional vs. Actual Matrilocality in Indonesia (2014)**

| | Presence of Spouse's Relatives in Household | | | | | |
|---|---|---|---|---|---|---|
| | Wife's Relatives | Husband's Relatives | Share of Wife's Relatives | Share of Husband's Relatives | Gap between Wife's and Husband's Relatives | Gap between Wife's and Husband's Relatives $> 0$ |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| **Matrilocality** | 0.087*** | -0.044*** | 0.028*** | -0.013** | 0.041*** | 0.086*** |
| | (0.017) | (0.016) | (0.004) | (0.005) | (0.007) | (0.016) |
| Relative effect | 84.3% | -22.2% | 136.8% | -24.4% | -128.7% | 111.2% |
| Ind. Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 5,880 | 5,880 | 5,880 | 5,880 | 5,880 | 5,880 |
| R-squared | 0.039 | 0.047 | 0.057 | 0.062 | 0.029 | 0.035 |
| F-stat | 26.98 | 7.55 | 41.81 | 5.90 | 30.43 | 29.13 |
| Clusters | 318 | 318 | 318 | 318 | 318 | 318 |

Linear estimations of contemporaneous co-residence practices on "matrilocality", i.e. a dummy indicating that a woman belongs to a traditionally matrilocal ethnic group. Dependant variables include dummies for the presence of at least one wife's relative in the household, for the presence of at least one husband's relative in the household, share of wife's relatives in the household, share of husband's relatives in the household. 'Gap between Wife's and Husband's Relatives' is the difference between the number of wife's relatives and the number of husband's relatives in the household, divided by the size of the household. 'Gap between Wife's and Husband's Relatives $> 0$' is a dummy $= 1$ if previous outcome is positive, 0 otherwise. All estimations control for women's and husband's characteristics: university graduate, currently working, lives in a rural area, muslim, dummies for age category (by 5 years). The relative effect is calculated in % of mean outcome for patrilocal group. Standard errors clustered at the village of origin level in brackets. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

**Table A4: Descriptive Statistics of Control Variables (Stable Couples, 2007-14)**

| | 2007 | | | 2014 | | | Raw |
|---|---|---|---|---|---|---|---|
| | Matri. | Patri. | Diff. | Matri. | Patri. | Diff. | DD |
| **Wife's Control Variables** | | | | | | | |
| Age Category | 4.856 | 4.891 | -0.035 | 6.174 | 6.169 | 0.005 | 0.040 |
| | (2.309) | (2.354) | (0.081) | (2.307) | (2.355) | (0.081) | (0.114) |
| University | 0.066 | 0.065 | 0.001 | 0.078 | 0.079 | -0.001 | -0.002 |
| | (0.248) | (0.246) | (0.009) | (0.268) | (0.270) | (0.009) | (0.013) |
| Work | 0.594 | 0.686 | -0.091*** | 0.667 | 0.741 | -0.074*** | 0.017 |
| | (0.491) | (0.465) | (0.017) | (0.471) | (0.438) | (0.017) | (0.023) |
| Muslim | 0.969 | 0.540 | 0.429*** | 0.969 | 0.540 | 0.429*** | 0.000 |
| | (0.172) | (0.499) | (0.009) | (0.172) | (0.499) | (0.009) | (0.013) |
| **Husband's Control Variables** | | | | | | | |
| Age Category | 5.797 | 5.679 | 0.117 | 7.111 | 6.965 | 0.146 | 0.029 |
| | (2.469) | (2.481) | (0.086) | (2.486) | (2.490) | (0.086) | (0.122) |
| University | 0.073 | 0.097 | -0.024** | 0.082 | 0.109 | -0.027*** | -0.004 |
| | (0.261) | (0.296) | (0.010) | (0.274) | (0.312) | (0.010) | (0.013) |
| Work | 0.956 | 0.958 | -0.001 | 0.921 | 0.930 | -0.009 | -0.008 |
| | (0.204) | (0.202) | (0.008) | (0.270) | (0.255) | (0.008) | (0.012) |
| Muslim | 0.968 | 0.537 | 0.431*** | 0.968 | 0.537 | 0.431*** | 0.000 |
| | (0.177) | (0.499) | (0.009) | (0.177) | (0.499) | (0.009) | (0.013) |
| **Household Geographic Control Variables** | | | | | | | |
| Rural | 0.503 | 0.576 | -0.073*** | 0.414 | 0.519 | -0.104*** | -0.031 |
| | (0.500) | (0.494) | (0.017) | (0.493) | (0.500) | (0.017) | (0.024) |
| Courthouse Distance | 39.556 | 36.306 | 3.250* | 39.556 | 36.306 | 3.250* | 0.000 |
| | (44.614) | (38.300) | (1.753) | (44.614) | (38.300) | (1.753) | (2.479) |
| **Additional Controls (Robustness Checks)** | | | | | | | |
| Javanese | 0.565 | 0.000 | 0.565*** | 0.565 | 0.000 | 0.565*** | 0.000 |
| | (0.496) | (0.000) | (0.016) | (0.496) | (0.000) | (0.016) | (0.022) |
| Mixed Ethnicity | 0.132 | 0.015 | 0.117*** | 0.132 | 0.015 | 0.117*** | 0.000 |
| | (0.339) | (0.122) | (0.011) | (0.340) | (0.122) | (0.011) | (0.015) |
| Natural Disaster | 0.557 | 0.580 | -0.023 | 0.557 | 0.565 | -0.008 | 0.015 |
| | (0.497) | (0.494) | (0.021) | (0.497) | (0.496) | (0.021) | (0.030) |
| Obs. | 4,954 | 989 | 5,943 | 4,954 | 989 | 5943 | 11,886 |
| Prop. Matri/Patri | 83.4% | 16.6% | | 83.4% | 16.6% | | |

Statistics based on the main sample used for difference-in-difference estimations in Table 3 (stable couples 2007-2014). Matri/patri: individual of ethnicities from matrilocal/patrilocal tradition. Standard deviations are reported in brackets in columns Matri. and Patri. Other columns difference between ethnic groups (Diff.) and a raw difference-in-difference on each characteristics (with ***, **, * indicating significance at 1%, 5%, 10% levels and standard errors reported in brackets).

**Table A5: Descriptive Statistics and Unconditional Difference-in-Differences of Outcome Variables (Stable Couples, 2007-14)**

| | 2007 | | | 2014 | | | **Raw** |
|---|---|---|---|---|---|---|---|
| | Matri. | Patri. | Diff. | Matri. | Patri. | Diff. | **DD** |
| **Dep. Variables: Well-Being Measures** | | | | | | | |
| Index | 0.981 | 0.970 | 0.011 | 1.083 | 0.890 | 0.192*** | 0.181*** |
| | (0.508) | (0.571) | (0.026) | (0.630) | (0.615) | (0.026) | (0.037) |
| Morbidity Symptoms | 0.761 | 0.705 | 0.055*** | 0.843 | 0.839 | 0.004 | -0.051*** |
| | (0.427) | (0.456) | (0.014) | (0.363) | (0.368) | (0.014) | (0.020) |
| Number of Births | 2.628 | 3.085 | -0.457*** | 3.287 | 4.018 | -0.731*** | -0.274** |
| | (2.300) | (2.662) | (0.084) | (2.287) | (2.838) | (0.084) | (0.119) |
| Wife's Living Stds | 1.948 | 1.976 | -0.028 | 2.052 | 1.929 | 0.123*** | 0.150*** |
| | (0.531) | (0.592) | (0.021) | (0.656) | (0.656) | (0.021) | (0.030) |
| Wife's Food Cons. | 2.010 | 2.026 | -0.016 | 2.148 | 2.018 | 0.130*** | 0.146*** |
| | (0.511) | (0.566) | (0.020) | (0.606) | (0.636) | (0.020) | (0.028) |
| Child Living Stds | 2.027 | 2.010 | 0.016 | 2.134 | 2.009 | 0.126*** | 0.109*** |
| | (0.530) | (0.556) | (0.027) | (0.656) | (0.656) | (0.027) | (0.039) |
| Child Food Cons. | 2.066 | 2.033 | 0.033 | 2.226 | 2.091 | 0.135*** | 0.102*** |
| | (0.516) | (0.554) | (0.026) | (0.620) | (0.645) | (0.026) | (0.037) |
| Wife Assets | 25,218 | 22,697 | 2,521 | 54,433 | 40,960 | 13,473*** | 10,952** |
| | (58,793) | (72,253) | (3,540) | (132,600) | (116,218) | (3,540) | (5,006) |
| **Dep. Variables: Empowerment (Final Say)** | | | | | | | |
| Contraception | 0.191 | 0.191 | 0.000 | 0.342 | 0.220 | 0.122*** | 0.122*** |
| | (0.393) | (0.393) | (0.016) | (0.474) | (0.415) | (0.016) | (0.022) |
| Large Expenditures | 0.064 | 0.053 | 0.011 | 0.191 | 0.115 | 0.076*** | 0.064*** |
| | (0.245) | (0.224) | (0.012) | (0.393) | (0.320) | (0.012) | (0.016) |

Statistics based on main DID sample in Table 3 (stable couples 2007-2014). Matri/patri: individuals of ethnicities from matrilocal/patrilocal tradition. Diff.: time difference, Raw DD: absolute difference-in-difference (with ***, **, * indicating significance at 1%, 5%, 10% levels). Standard deviations are reported in brackets in columns 1, 2, 4 and 5. Standard errors are reported in brackets in columns 3, 6 and 7.

# Appendix B. Cross-Sectional Estimations

**Table B1: Villages' Post-Marriage Residence Norm and Divorce-related *Adat* Traditional Norms**

| | Divorce settled in religious or civil courts | | Husband takes all assets from before marriage | | Husband takes all assets acquired during marriage | | Young children live with the man or his parents | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Matrilocal Village | 0.102 | | -0.043 | | -0.056** | | -0.173*** | |
| | (0.065) | | (0.027) | | (0.026) | | (0.046) | |
| Patrilocal Village | | -0.247*** | | 0.064* | | 0.074** | | 0.252*** |
| | | (0.071) | | (0.038) | | (0.037) | | (0.062) |
| Observations | 247 | 247 | 249 | 249 | 249 | 249 | 249 | 249 |
| R-squared | 0.010 | 0.044 | 0.013 | 0.021 | 0.027 | 0.037 | 0.071 | 0.116 |
| Sample mean | 0.510 | 0.510 | 0.036 | 0.036 | 0.028 | 0.028 | 0.112 | 0.112 |

Village-level linear estimations of situations in case of divorce on either matrilocal or patrilocal traditional norm of post-marriage residence. If matrilocal=1 (patrilocal=1), 0 corresponds to patrilocal (matrilocal), neolocal and ambilocal. The norm is obtained from the *Adat* questionnaire (answers by *Adat* experts in each village) in 1997 IFLS data. Columns 1 & 2: if a divorce happens, the decision-making process used in the divorce is 1: religious/civil courts or 0: family discussion. Columns 3 & 4: if a divorce occurs, 1: the husband has the right to claim those assets that existed before marriage, 0 otherwise. Columns 5 & 6: if a divorce occurs, 1: the husband has the right to claim those assets obtained since the couple was married, 0 otherwise. Columns 7 & 8: after a divorce, young children go 1: with the husband or husband's parents, 0 otherwise. Robust standard errors in brackets. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

**Table B2: Correlations between Matrilocality and Women's Outcomes (Stable Couples, 2007-14)**

| | Women's and Child's Well-Being | | | | | | | | Women's Empowerment | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Index | Morbidity symptoms | Number of births | Standard of living | Food consumption | Children's std. of living | Children's food conso. | Wife's assets value | Contraception | Large expenditures |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| | | | | | ***Panel A: 2014*** | | | | | |
| Matrilocal | 0.194*** | -0.00598 | -0.900*** | 0.108*** | 0.119*** | 0.116*** | 0.118*** | 14,495*** | 0.129*** | 0.0663*** |
| | (0.0427) | (0.0164) | (0.154) | (0.0390) | (0.0353) | (0.0443) | (0.0422) | (5,033) | (0.0275) | (0.0185) |
| Observations | 3,339 | 5,920 | 5,745 | 5,773 | 5,774 | 3,365 | 3,364 | 5,935 | 5,442 | 5,442 |
| R-squared | 0.132 | 0.018 | 0.201 | 0.075 | 0.078 | 0.072 | 0.093 | 0.080 | 0.027 | 0.022 |
| Clusters | 316 | 318 | 318 | 318 | 318 | 316 | 316 | 318 | 317 | 317 |
| | | | | | ***Panel B: 2007*** | | | | | |
| Matrilocal | -0.0540 | 0.0880** | -0.640*** | -0.0847 | -0.0691 | -0.0375 | -0.0239 | 3,725* | -0.0301 | 0.0128 |
| | (0.0743) | (0.0348) | (0.114) | (0.0607) | (0.0538) | (0.0631) | (0.0580) | (2,156) | (0.0231) | (0.0125) |
| Observations | 3,339 | 5,920 | 5,745 | 5,773 | 5,774 | 3,365 | 3,364 | 5,935 | 5,442 | 5,442 |
| R-squared | 0.087 | 0.018 | 0.409 | 0.048 | 0.045 | 0.049 | 0.047 | 0.111 | 0.018 | 0.007 |
| Clusters | 316 | 318 | 318 | 318 | 318 | 316 | 316 | 318 | 317 | 317 |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Cross-sectional linear estimations of women's well-being and empowerment outcomes (defined in the footnote of Table 3) on a matrilocal dummy (indicating whether an individual belongs to a traditionally matrilocal ethnic group) as well as women's and women's spouse's characteristics (university graduate, currently working, living in rural areas, muslim and age group dummies using 5-year steps). Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

**Table B3: Villages' Post-Marriage Residence Norm and Bride Price/Inheritance *Adat* Traditional Norms**

| | Bride Price | | Gender difference in proportion of inheritance received | | Percentage of inheritance bequeathed to women | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Matrilocal Village | 0.011 | | -0.079 | | 0.080*** | |
| | (0.044) | | (0.056) | | (0.020) | |
| Patrilocal Village | | -0.009 | | 0.137** | | -0.110*** |
| | | (0.051) | | (0.057) | | (0.024) |
| Observations | 249 | 249 | 249 | 249 | 247 | 247 |
| R-squared | 0.000 | 0.000 | 0.008 | 0.018 | 0.070 | 0.101 |
| Sample mean | 0.871 | 0.871 | 0.743 | 0.743 | 0.367 | 0.367 |

Village-level linear estimations on either matrilocal or patrilocal traditional norm of post-marriage residence. If matrilocal=1 (patrilocal=1), 0 corresponds to patrilocal (matrilocal), neolocal or ambilocal. The norm is obtained from the *Adat* questionnaire (answers by *Adat* experts in each village) in 1997 IFLS data. Columns 1 & 2: 1 if at the time of the wedding, the man's family gives a gift to the bride or to her family (0 otherwise). Columns 3 & 4: 1 if gender difference in the proportion of inheritance received by the children (0 otherwise). Column 5 & 6: proportion of inheritance bequeathed to women. Robust standard errors in brackets. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

# Appendix C. Placebo and Specification Checks

**Table C1: Women's Divorce Probability: Double-Difference Placebo Estimations**

| Dep. Var. | Divorced | Divorced | Divorced | Divorced or Separated | Divorced | Divorced or Separated |
|---|---|---|---|---|---|---|
| Estimator | Difference-in-Difference (DD) | | | | Simple Difference | |
| Samples | Married before 2000 | Excluding singles and widowed | Excluding singles & widowed, married before 2000 | Married before 2000 | Married in 2000 | Married in 2000 |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Post | 0.0117 | 0.0253 | 0.00916 | 0.0271 | | |
| | (0.0101) | (0.0299) | (0.0180) | (0.0274) | | |
| Post × Matrilocal | -0.00167 | 0.00589 | -0.00180 | -0.00763 | | |
| | (0.00483) | (0.00615) | (0.00546) | (0.00603) | | |
| Matrilocal | | | | | 0.00122 | -0.00240 |
| | | | | | (0.00454) | (0.00599) |
| Observations | 10,772 | 13,790 | 9,524 | 10,772 | 7,147 | 7,147 |
| R-squared | 0.019 | 0.011 | 0.021 | 0.022 | 0.006 | 0.016 |
| Clusters | 320 | 320 | 320 | 320 | 320 | 320 |
| Individual FE | Yes | Yes | Yes | Yes | No | No |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | No | No |

Linear estimations of women's divorce status (dummy for divorced or divorced/separated). We apply the difference-in-difference approach to a selection of women observed in both 2000 and 2007, who were married in 1997 (columns 1, 3 and 4) or married, divorced or separated in 2000 and 2007 (columns 2 and 3). Post is equal to 1 for observations in 2007 and 0 otherwise. We also estimate the potential increase in divorce using women observed in 2007 who were married in 2000 (columns 5 and 6). Matrilocal is a dummy indicating whether an individual belongs to a traditionally matrilocal ethnic group. Estimations include individual FE (absorbing Matrilocal and muslim in column 1-4), time-varying controls (women's characteristics: university graduate, currently working, living in rural areas and age group dummies using 5-year steps), a muslim dummy in columns 5 and 6, and interactions between Post and controls (including Post interacted with a muslim dummy) in columns 1-4. Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

**Table C2: Women's Divorce Probability: Triple-difference Placebo Estimations**

| Dep. Var. | Divorced | Divorced | Divorced | Divorced or Separated | Divorced | Divorced or Separated |
|---|---|---|---|---|---|---|
| Estimator | Difference-in-Difference | | | | Simple Difference | |
| Samples | Married before 2000 | Excluding singles and widowed | Excluding singles & widowed, married before 2000 | Married before 2000 | Married in 2000 | Married in 2000 |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Post × Matri. × Close | -0.00264 | -0.00217 | -0.00319 | -0.00366 | | |
| | (0.00611) | (0.00849) | (0.00681) | (0.00704) | | |
| Post × Matri. × Far | -0.00239 | 0.00287 | -0.00307 | -0.0111 | | |
| | (0.00612) | (0.00756) | (0.00678) | (0.00677) | | |
| Matri. × Close | | | | | -0.00226 | -0.00487 |
| | | | | | (0.00636) | (0.00795) |
| Matri. × Far | | | | | -0.000763 | -0.00270 |
| | | | | | (0.00616) | (0.00734) |
| Observations | 8,398 | 9,864 | 7,380 | 8,398 | 5,140 | 5,140 |
| R-squared | 0.028 | 0.013 | 0.032 | 0.029 | 0.007 | 0.020 |
| Clusters | 266 | 267 | 266 | 266 | 267 | 267 |
| Individual FE | Yes | Yes | Yes | Yes | No | No |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | No | No |
| Post × Distance | Yes | Yes | Yes | Yes | Yes | Yes |

Linear estimations of women's divorce status (dummy for divorced or divorced/separated). We apply the triple-difference approach to the same selections of women and with the same set of controls as in Table C1. Columns 1-4 additionally include Post interacted with the distance to courthouse and columns 5-6 include the distance to courthouse as control. Close/far are dummies indicating whether person lives below/above the median distance to the nearest courthouse. The relative effect is calculated in % of mean outcome for patrilocal group in 2000 (placebo first year) in each close/far group. Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01. We test the equality of the relative effects for individuals close versus far from courthouses (p-value of t-tests reported).

**Table C3: Women's Final Say Measures: Double-difference Estimations**

| Dep. Var. | Contraception | | | | Large expenditures | | | |
|---|---|---|---|---|---|---|---|---|
| Specification | Husband respondant (baseline) | Wife decides alone | Wife respondant | Wife respondant & decides alone | Husband respondant (baseline) | Wife decides alone | Wife respondant | Wife respondant & decides alone |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Post × Matrilocal | 0.163*** | 0.163*** | 0.0956*** | 0.0953*** | 0.0549*** | 0.0558*** | 0.0373** | 0.0401** |
| | (0.0333) | (0.0333) | (0.0263) | (0.0263) | (0.0159) | (0.0159) | (0.0183) | (0.0187) |
| **Relative effect** | 85.3% | 85.3% | 64.2% | 64.4% | 103.6% | 105.3% | 69.1% | 74.3% |
| Observations | 10,884 | 10,884 | 11,384 | 11,384 | 10,884 | 10,884 | 11,384 | 11,384 |
| R-squared | 0.065 | 0.065 | 0.091 | 0.091 | 0.088 | 0.090 | 0.108 | 0.110 |
| Clusters | 317 | 317 | 318 | 318 | 317 | 317 | 318 | 318 |
| Household FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Difference-in-difference estimations of empowerment on a sample of stable couples surveyed in both 2007 and 2014. Post is equal to 1 for 2014 (post-reform) and 0 for 2007 (pre-reform). Outcomes are defined in Table 3. Estimations include household FE (absorbing matrilocal and muslim), basic controls, all controls interacted with Post (including post interacted with a muslim dummy). Empowerment outcomes: dummies indicating whether the wife and/or her potential relatives have the final say (while the husband does not have any say) regarding key dimensions of household choices including contraception and large household expenditures. The baseline definition of empowerment outcomes relies on the husband's answer (columns 1 and 5). Alternative definitions use the wife's answer or define empowerment as her making the decision alone. Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

**Table C4: Women's Outcomes (Stable Couples): Double-difference Placebo Estimations**

| | Index | Morbidity symptoms | Number of births | Standard of living | Food consumption | Children's std. of living | Children's food conso. | Wife's assets value |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Post | -0.808* | -0.215 | 5.367 | 2.023** | 1.018** | -0.986* | -0.385 | 60,677 |
| | (0.477) | (0.293) | (3.301) | (0.833) | (0.514) | (0.592) | (0.631) | (42,050) |
| Post × Matrilocal | 0.0523 | 0.0396 | -0.125 | 0.0704 | 0.0987 | -0.00807 | 0.0601 | 2,353 |
| | (0.0843) | (0.0391) | (0.0807) | (0.0762) | (0.0717) | (0.0716) | (0.0708) | (3,027) |
| Observations | 2,570 | 6,640 | 6,358 | 6,438 | 6,436 | 2,586 | 2,584 | 6,642 |
| R-squared | 0.104 | 0.038 | 0.375 | 0.063 | 0.077 | 0.075 | 0.061 | 0.178 |
| Clusters | 293 | 317 | 317 | 316 | 316 | 293 | 293 | 317 |
| Household FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Placebo difference-in-difference estimations of well-being and empowerment indicators on a sample of stable couples (2000-2014) surveyed in both 2000 and 2007. Post is equal to 1 for 2007 and 0 for 2000. Outcomes are described in Table 3. Estimations include household FE (absorbing Muslim), basic controls, and control interactions with Post (including Post interacted with a musim dummy). Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

**Table C5: Women's Outcomes: Double-difference Estimations on Pooled Cross-Sections**

| | Index | Morbidity symptoms | Number of births | Standard of living | Food consumption | Children's std. of living | Children's food conso. | Wife's assets value |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Post | 0.536 | 0.212 | 3.255*** | 0.624 | 1.590*** | -0.706 | -0.121 | 107,716*** |
| | (0.565) | (0.585) | (0.617) | (0.496) | (0.516) | (0.480) | (0.854) | (35,631) |
| Post × Matrilocal | 0.240*** | -0.0809** | 0.0605 | 0.203*** | 0.201*** | 0.189*** | 0.194*** | 6,514* |
| | (0.0528) | (0.0332) | (0.0973) | (0.0471) | (0.0474) | (0.0512) | (0.0462) | (3,571) |
| **Relative effect** | 25.8% | -11.5% | 1.8% | 10.4% | 10% | 9.4% | 9.5% | 28.5% |
| Observations | 12,183 | 18,243 | 17,929 | 17,930 | 17,932 | 12,253 | 12,249 | 18,271 |
| R-squared | 0.142 | 0.029 | 0.377 | 0.073 | 0.087 | 0.087 | 0.103 | 0.098 |
| Clusters | 319 | 319 | 319 | 319 | 319 | 319 | 319 | 319 |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Difference-in-difference estimations of well-being and empowerment indicators on a sample of couples surveyed in 2007 and couples surveyed in 2014 (pooled cross-sections). Post is equal to 1 for 2014 (post-reform) and 0 for 2007 (pre-reform). Matrilocal is a dummy indicating whether an individual belongs to a traditionally matrilocal ethnic group. Outcomes are defined in Table 3. All estimations include controls defined in Table 3 plus dummy variables for matrilocality, muslim religion, spouse of muslim religion, as well as Post interacted with all these controls. We report relative effects that are calculated in % of mean outcome for patrilocal group in 2007 (pre-reform). Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

## Table C6: Women's Outcomes (Stable Couples): Triple-Difference Placebo Estimations

| | Index | Morbidity symptoms | Number of births | Standard of living | Food consumption | Children's std. of living | Children's food conso. | Wife's assets value |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Post × Matri. × Close | 0.0013 | 0.00343 | -0.180 | -0.0190 | 0.0161 | 0.0329 | -0.00430 | -4,228 |
| | (0.1106) | (0.0514) | (0.124) | (0.113) | (0.118) | (0.0998) | (0.110) | (5,067) |
| Post × Matri. × Far | 0.0709 | 0.00779 | -0.124 | 0.0222 | 0.101 | 0.0529 | 0.0740 | 374.5 |
| | (0.1063) | (0.0471) | (0.119) | (0.108) | (0.113) | (0.0948) | (0.106) | (4,312) |
| Observations | 3,116 | 5,484 | 5,306 | 5,480 | 5,484 | 3,126 | 3,126 | 5,462 |
| R-squared | 0.089 | 0.053 | 0.335 | 0.086 | 0.100 | 0.074 | 0.069 | 0.185 |
| Clusters | 254 | 261 | 261 | 261 | 261 | 254 | 254 | 261 |
| Household FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Distance | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

DDD estimations on a sample of stable couples surveyed in both 2000 and 2007. Post is equal to 1 for 2007 (placebo post-reform) and 0 for 2000 (placebo pre-reform). Outcomes and 'Matrilocal' are defined in Table 3. Estimations include household FE (absorbing matrilocal and muslim dummies), controls defined in Table 3 and Post interacted with the distance to courthouse. 'Close' is a dummy indicating individuals living close to the courhouse (i.e. below or equal to the median of distance). 'Far' is a dummy indicating individuals living far to the courthouse (i.e. above the median of distance). The relative effect are calculated in % of mean outcome for patrilocal group in 2000 (placebo pre-reform) in each group of distance to courthouse. Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01. T-test of equal relative effects between individuals that are close and far from courthouse (p-value).

## Table C7: Women's Outcomes (Stable Couples): Double-difference Specification Checks

| | Index | Morbidity symptoms | Number of births | Standard of living | Food consumption | Children's std. of living | Children's food conso. | Wife's assets value |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| ***Baseline*** | | | | | | | | |
| Rel. effect (%) | 25.4*** | -12.6*** | -7.6** | 9.7*** | 9.3*** | 7.6*** | 6.9*** | 47.1** |
| Observations | 6,678 | 11,840 | 11,490 | 11,546 | 11,548 | 6,730 | 6,728 | 11,870 |
| ***Controlling for Post × Javanese*** | | | | | | | | |
| Rel. effect (%) | 25.4*** | -13.4*** | -6.5** | 9.7*** | 9.3*** | 7.4** | 6.7** | 73.4*** |
| Observations | 6,678 | 11,840 | 11,490 | 11,546 | 11,548 | 6,730 | 6,728 | 11,870 |
| ***Controlling for Post × Mixed Ethnicity*** | | | | | | | | |
| Rel. effect (%) | 24.4*** | -12.4*** | -7.7** | 9.5*** | 9.1*** | 7.0*** | 6.3** | 44.1* |
| Observations | 6,678 | 11,840 | 11,490 | 11,546 | 11,548 | 6,730 | 6,728 | 11,870 |
| ***Controlling for Natural Disaster and Post × Natural Disaster*** | | | | | | | | |
| Rel. effect (%) | 27.4*** | -14.6*** | -6.8** | 8.8*** | 9.7*** | 10.2*** | 7.4*** | 63.5** |
| Observations | 4,058 | 7,978 | 7,656 | 7,734 | 7,734 | 4,084 | 4,084 | 7,990 |
| ***Controlling for Post × Bride Price*** | | | | | | | | |
| Rel. effect (%) | 25.8*** | -13.3*** | -7.9*** | 10.1*** | 9.5*** | 7.5*** | 7.0*** | 49.8** |
| Observations | 6,678 | 11,840 | 11,490 | 11,546 | 11,548 | 6,730 | 6,728 | 11,870 |
| ***Sample excluding Matrilineal*** | | | | | | | | |
| Rel. effect (%) | 25.8*** | -12.3*** | -7.9*** | 9.7*** | 9.5*** | 7.9*** | 7.2*** | 44.1* |
| Observations | 6,324 | 11,256 | 10,930 | 10,970 | 10,972 | 6,372 | 6,370 | 11,284 |

Difference-in-difference estimations of well-being and empowerment indicators on a sample of stable couples surveyed in both 2007 and 2014. Outcomes are defined in Table 3. All estimations include household FE (absorbing matrilocal and muslim) and controls defined in Table 3. The first row replicates our baseline DD estimates. The next rows additionally control for Post interacted with 'javanese' (a dummy indicating an individual of javanese ethnicity), 'mixed ethnicity' (a dummy indicating a couple with spouses of different ethnicities), 'natural disaster' (a dummy indicating an individual living in a village having experienced a natural disaster in the 5 years preceding the survey) and 'bride price' (a dummy indicating an individual belonging to an ethnic group traditionally practicing bride price). In the last row, we exclude matrilineal (i.e. *Minang*) individuals from our main sample. We report relative effects that are calculated in % of mean outcome for patrilocal group in 2007 (pre-reform). Standard errors are reported in brackets and clustered at village of origin level. * p<0.10, ** p<0.05, *** p<0.01.

## Table C8: Women's Outcomes (Stable Couples): Triple-difference Specification Checks

| | Index | Morbidity symptoms | Number of births | Standard of living | Food consumption | Children's std. of living | Children's food conso. | Wife's assets value |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| ***Baseline*** | | | | | | | | |
| Rel. effect Close (%) | 21.0*** | -9.9 | -4.3 | 6.8** | 7.8*** | 6.6** | 6.9*** | 41.9 |
| Rel. effect Far (%) | 34.4*** | -15.5*** | -8.1*** | 10.6*** | 9.8*** | 12.3*** | 10.7*** | 72.6** |
| T-Test Equal. (p-val.) | 0.004 | 0.104 | 0.045 | 0.057 | 0.254 | 0.015 | 0.112 | 0.296 |
| ***Controlling for Post × Javanese*** | | | | | | | | |
| Rel. effect Close (%) | 20.2*** | -9.2 | -11.6 | 6.6** | 7.2** | 6.8** | 6.5** | 71.8** |
| Rel. effect Far (%) | 33.6*** | -15.0** | -34.1** | 10.4*** | 9.2*** | 12.4*** | 10.3*** | 97.3*** |
| T-Test Equal. (p-val.) | 0.004 | 0.098 | 0.031 | 0.061 | 0.238 | 0.016 | 0.111 | 0.372 |
| ***Controlling for Post × Mixed Ethnicity*** | | | | | | | | |
| Rel. effect Close (%) | 20.2*** | -9.8 | -20.1 | 6.6** | 7.6*** | 6.0** | 6.4** | 40.7 |
| Rel. effect Far (%) | 33.7*** | -15.5*** | -40.9*** | 10.4*** | 9.6*** | 11.7*** | 10.2*** | 71.7** |
| T-Test Equal. (p-val.) | 0.003 | 0.101 | 0.055 | 0.051 | 0.243 | 0.011 | 0.097 | 0.292 |
| ***Controlling for Natural Disaster and Post × Natural Disaster*** | | | | | | | | |
| Rel. effect Close (%) | 20.7*** | -13.6** | -15.1 | 4.6 | 7.0*** | 7.5** | 5.7** | 53.6 |
| Rel. effect Far (%) | 36.4*** | -16.6*** | -45.7*** | 9.2*** | 10.1*** | 14.9*** | 9.7*** | 85.5*** |
| T-Test Equal. (p-val.) | 0.002 | 0.476 | 0.013 | 0.037 | 0.089 | 0.004 | 0.117 | 0.306 |
| ***Controlling for Post × Bride Price*** | | | | | | | | |
| Rel. effect Close (%) | 21.6*** | -10,9* | -19.4 | 7.4*** | 7.9*** | 6.5** | 7.0*** | 46.8 |
| Rel. effect Far (%) | 34.3*** | -15.7*** | -39.7*** | 10.7*** | 9.8*** | 12.3*** | 10.7*** | 73.2** |
| T-Test Equal. (p-val.) | 0.009 | 0.178 | 0.061 | 0.098 | 0.286 | 0.015 | 0.135 | 0.369 |
| ***Sample excluding Matrilineal*** | | | | | | | | |
| Rel. effect Close (%) | 21.6*** | -9.6 | -16.9 | 7.0** | 7.7*** | 6.9** | 7.2*** | 45.6 |
| Rel. effect Far (%) | 34.9*** | -15.1** | -43.9*** | 10.9*** | 10.2*** | 12.4*** | 11.3*** | 61.0* |
| T-Test Equal. (p-val.) | 0.007 | 0.135 | 0.008 | 0.060 | 0.145 | 0.024 | 0.084 | 0.596 |

DDD estimations on a sample of stable couples surveyed in both 2007 and 2014. Post is equal to 1 for 2014 (post-reform) and 0 for 2007 (pre-reform). Outcomes, 'Matrilocal', 'Close' and 'Far' are defined in Table 3. Estimations include household FE (absorbing matrilocal and muslim dummies), controls defined in Table 3 and Post interacted with the distance to courthouse. The relative effect are calculated in % of mean outcome for patrilocal group in 2007 (pre-reform) in each group of distance to courthouse. We report T-test of equal relative effects between individuals that are close and far from courthouse (p-value). The first row replicates our baseline DDD estimates. The different additions to the baseline are described in Table C7. Standard errors are reported in brackets and clustered at village of origin level. * p<0.10, ** p<0.05, *** p<0.01.

**Table C9: Women's Outcomes (Stable Couples): Alternative Definitions of Treatment (Matrilocal Intensity)**

| | Index | Morbidity symptoms | Number of births | Standard of living | Food consumption | Children's std. of living | Children's food conso. | Wife's assets value |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Post | -0.208 | 1.316** | -3.419 | 0.481 | -0.536 | -0.012 | 0.320 | 180,859** |
| | (0.534) | (0.528) | (3.532) | (0.512) | (0.402) | (0.431) | (0.563) | (74,582) |
| Post × Matrilocal Int. | 0.317*** | -0.153*** | -0.0956 | 0.283*** | 0.242*** | 0.188*** | 0.159** | 23,585*** |
| | (0.064) | (0.037) | (0.106) | (0.066) | (0.062) | (0.068) | (0.064) | (7,564) |
| Observations | 6,678 | 11,840 | 11,490 | 11,546 | 11,548 | 6,730 | 6,728 | 11,870 |
| R-squared | 0.061 | 0.050 | 0.346 | 0.045 | 0.059 | 0.039 | 0.073 | 0.085 |
| Clusters | 316 | 318 | 318 | 318 | 318 | 316 | 316 | 318 |
| Household FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Difference-in-difference estimations of well-being and empowerment indicators on a sample of stable couples surveyed in both 2007 and 2014. Outcomes are defined in Table 3. All estimations include household FE (absorbing matrilocal intensity and muslim) and controls defined in Table 3. 'Matrilocal Int.' indicates individual's ethnic group's matrilocal intensity, defined as the proportion of villages (where this ethnic group is the main ethnic group) reporting traditional matrilocality in *Adat* questionnaire in IFLS. Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

**Table C10: Women's Outcomes (Stable Couples): Alternative Definitions of Treatment (Including Mixed Couples)**

| | Index | Morbidity symptoms | Number of births | Standard of living | Food consumption | Children's std. of living | Children's food conso. | Wife's assets value |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| | ***Panel A: Matrilocality defined based on Wife's Ethnic Group's Norm*** | | | | | | | |
| Post × Matrilocal | 0.234*** | -0.081*** | -0.184** | 0.177*** | 0.180*** | 0.163*** | 0.148*** | 9,187* |
| | (0.050) | (0.030) | (0.083) | (0.049) | (0.046) | (0.050) | (0.047) | (5,219) |
| **Relative effect** | 23.8% | -11.4% | -6.1% | 9.0% | 8.9% | 8% | 7.2% | 40.8% |
| Observations | 7,006 | 12,346 | 11,988 | 12,042 | 12,044 | 7,062 | 7,062 | 12,376 |
| R-squared | 0.060 | 0.048 | 0.354 | 0.042 | 0.058 | 0.042 | 0.073 | 0.086 |
| Clusters | 316 | 318 | 319 | 319 | 319 | 316 | 316 | 319 |
| | ***Panel B: Matrilocality defined based on Husband's Ethnic Group's Norm*** | | | | | | | |
| Post × Matrilocal | 0.216*** | -0.081*** | -0.223*** | 0.178*** | 0.159*** | 0.113** | 0.111** | 10,317** |
| | (0.049) | (0.029) | (0.082) | (0.050) | (0.048) | (0.052) | (0.046) | (4,930) |
| **Relative effect** | 22.2% | -11.4% | -7.4% | 9.0% | 7.9% | 5.6% | 5.4% | 45.0% |
| Observations | 6,994 | 12,328 | 11,970 | 12,024 | 12,026 | 7,050 | 7,050 | 12,358 |
| R-squared | 0.058 | 0.048 | 0.354 | 0.043 | 0.056 | 0.039 | 0.071 | 0.087 |
| Clusters | 316 | 318 | 319 | 319 | 319 | 316 | 316 | 319 |
| Household FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Mixed Couple | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Difference-in-difference estimations of well-being and empowerment indicators on a sample of stable couples surveyed in both 2007 and 2014, including couples with spouses originating from ethnic groups with different post-marital residence norm ('Mixed Couples'). Outcomes are defined in Table 3. All estimations include household FE (absorbing matrilocal, muslim and mixed couple dummies) and controls are defined in Table 3. 'Mixed Couple' is a dummy indicating whether an individual originates from an ethnic group with a different post-marital residence norm that her/his spouse. Post is equal to 1 for 2014 (post-reform) and 0 for 2007 (pre-reform). In Panel A, Matrilocal is a dummy indicating whether an individual belongs to a couple where the wife originates from a traditionally matrilocal ethnic group. In Panel B, Matrilocal is a dummy indicating whether an individual belongs to a couple where the husband originates from a traditionally matrilocal ethnic group. The relative effect is calculated in % of mean outcome for patrilocal group in 2007 (pre-reform). Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

**Table C11: Women's Outcomes (Stable Couples): Alternative Definitions of Treatment (Ancestral Matrilocality from the Ethnographic Atlas, Sub-sample matched with Bau, 2021)**

| | Index | Morbidity symptoms | Number of births | Standard of living | Food consumption | Children's std. of living | Children's food conso. | Wife's assets value |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Post | 0.485 | 0.560** | 11.20** | 1.259 | -0.386 | 0.647 | 0.403 | -63,853 |
| | (0.399) | (0.248) | (5.577) | (0.785) | (0.817) | (0.470) | (0.560) | (61,291) |
| Post × Matrilocal | 0.210*** | -0.171*** | -0.0644 | 0.210*** | 0.180*** | 0.0873 | 0.0683 | 26,734*** |
| | (0.0711) | (0.0380) | (0.106) | (0.0762) | (0.0649) | (0.0805) | (0.0789) | (8,582) |
| **Relative effect** | 20.3% | -24.3% | -2.1% | 10.6% | 8.9% | 4.3% | 3.4% | 117.8% |
| Observations | 1,750 | 2,982 | 2,868 | 2,876 | 2,880 | 1,770 | 1,768 | 2,988 |
| R-squared | 0.090 | 0.098 | 0.428 | 0.066 | 0.073 | 0.048 | 0.080 | 0.130 |
| Clusters | 109 | 122 | 122 | 121 | 121 | 109 | 109 | 123 |
| Household FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Post × Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Difference-in-difference estimations of well-being and empowerment indicators on a sample of couples surveyed in 2007 and couples surveyed in 2014 (subsample of individuals with an ethnic group having the same definition of matrilocality as in Bau (2021), based on the Ethnographic Atlas). Outcomes are defined in Table 3. All estimations include household FE (absorbing matrilocal and muslim) and controls defined in Table 3. We report relative effects that are calculated in % of mean outcome for patrilocal group in 2007 (pre-reform). Standard errors are reported in brackets and clustered at village of origin level. Significance levels: * p<0.10, ** p<0.05, *** p<0.01.

# Appendix D. Proofs of Propositions 1 and 2

We study the expected bargaining power and the probability of divorce of matrilocal and patrilocal women. Divorce can happen in period 2. To decide whether to divorce or not, each spouse compares the indirect utility obtained in marriage given the first-period Pareto weight and the indirect utility in case of divorce. The within-marriage allocations come from the maximization of the household welfare function subject to the joint budget constraint:

$$\max_{c_2^{Hh}, c_2^{Wh}, Q_2^h} \gamma^{Hh}[u^{Hh}(c_2^{Hh}, Q_2^h) + \chi_2^{Hh}] + \gamma^{Wh}[u^{Wh}(c_2^{Wh}, Q_2^h) + \chi_2^{Wh}]$$

$$\text{s.t.}$$

$$c_2^{Hh} + x_2^{Hh} + c_2^{Wh} + x_2^{Wh} \leq y_2^{Hh} + y_2^{Wh} + (1+r)A_2^h$$

which defines the indirect utility of each spouse in marriage: $V_{married}^{jh}(\omega_2) = u^{jh}(c_2^{*jh}, Q_2^{*h}) + \chi_2^{jh}$.

The allocation in case of divorce is yielded by the maximization, separately for each spouse, of her/his utility subject to an individual budget constraint under divorce:

$$\max_{c_2^{jh}, x_2^{jh}} u^{jh}(c_2^{jh}, x_2^{jh}) + \delta^{jh}$$

$$\text{s.t.}$$

$$c_2^{jh} + x_2^{jh} + d \leq y_2^{jh} + (1+r_2)\frac{A_2^h}{2}$$

which defines the indirect utility of each spouse in case of divorce: $V_{divorced}^{jh}(\omega_2) = U(c_2^{*j}, x_2^{*j}; \delta^{jh})$.

Then, the following algorithm can be applied:

1. If $V_{married}^{jh}(\omega_2) \geq V_{divorced}^{jh}(\omega_2)$ for both $j = H, W$, then the couple remains married.
2. If $V_{married}^{jh}(\omega_2) < V_{divorced}^{jh}(\omega_2)$ for both $j = H, W$, then the couple divorces.
3. If $V_{married}^{jh}(\omega_2) < V_{divorced}^{jh}(\omega_2)$ and $V_{married}^{ih}(\omega_2) \geq V_{divorced}^{ih}(\omega_2)$ for $j = H, W$, $i = W, H$ and $i \neq j$, renegotiation may take place, i.e. Pareto weights may change and the allocation may shift.

In the last case, a new marriage allocation is determined through a constrained maximization of the household welfare function as defined above but with renegotiated bargaining weights $\gamma_t^{jh} + \mu_t^{jh}$ coming from the participation constraint for the spouse $j$ whose divorce constraint binds. The $\mu$s are such that $j$ stays in marriage, and are defined as Lagrangian multipliers of the binding version of the participation constraint $V_{married}^{jh}(\omega_2) \geq V_{divorced}^{jh}(\omega_2)$, such that the value of marriage for the partner $i$ is high enough after renegotiation. If no such change in bargaining weights can be found, the couple divorces.

Divorce occurs in case 2, i.e. when participation constraints bind for both spouses, or in case 3 when renegotiation fails, i.e. when there exists not feasible allocation within marriage that allows the spouse whose participation constraint is binding to gain power without making the

other spouse unwilling to stay. Let us study the different probabilities of divorce for matrilocal and patrilocal women. Given an initial bargaining power $\gamma^{Wh}$, the participation constraint binds when the bargaining power does not provide enough resources in marriage as compared to divorce. From the wife's point of view, for every $\gamma^{Wh}$ we can define a minimum level of marriage taste $\overline{\chi}^{Wh}$, given $\{y_2^{Wh}, y_2^{Hh}, \delta^{Wh}, \delta^{Hh}\}$, below which renegotiation occurs. Since the utility function in case of divorce is assumed to be higher for matrilocal women (Assumption I), we have:

$$\overline{\chi}^{WM} = u^{WM}_{divorced}(\omega_2) + \delta^{WM} - d - u^{WM}_{married}(\omega_2) > u^{WP}_{divorced}(\omega_2) + \delta^{WP} - d - u^{WP}_{married}(\omega_2) = \overline{\chi}^{WP}.$$

**Prediction 1 (Divorce).** Since women's tastes for marriage follow the same probability distribution regardless of the post-marital residence norm, then $Pr(D = 1|\omega_2, WM) = f(\overline{\chi}^{WM}) > f(\overline{\chi}^{WP}) = Pr(D = 1|\omega_2, WP)$ and $F(\overline{\chi}^{WM}) > F(\overline{\chi}^{WP})$ so the participation constraint of matrilocal women is expected to bind more frequently. This implies that there exists a range of husbands' preference parameters for which the participation constraint of matrilocal women binds while that of patrilocal women does not, implying that matrilocal women divorce more often. This leads to prediction 1.

**Prediction 1 (Bargaining power).** As stated above, renegotiation takes place more often for matrilocal couples. Starting from $\gamma^{Wh}$, the bargaining power of matrilocal women will thus increase more often than for patrilocal ones. Renegotiation can also occur when the husband constraint binds. We can compute the probability that a woman accepts the husband's renegotiation. For every realization of $\chi_2^{Hh} < \overline{\chi}^{Hh}$, i.e. the husband threshold for renegotiation given $\{y_2^{Wh}, y_2^{Hh}\}$, the couple will stay married if $\chi_2^{Wh} > \overline{\chi}^{Wh}$. This will happen more often for patrilocal women than matrilocal women, implying that patrilocal women will accept a deterioration of their bargaining power, while matrilocal women will divorce. Overall, in expectation, matrilocal women who select into marriage at period 2 are those with a higher bargaining power. This yields prediction 2.

**Prediction 2 (Effect of the reform on divorce and bargaining power).** To study the effect of decreasing $d$ on divorce, we must compute $\frac{\partial Pr(D=1|\omega_2,Wh)}{\partial d} = -f(\overline{\chi}^{Wh})$. Since Assumption IV holds after the reform, in particular the fact that a person with a modal marriage taste remains married, we still have $f(\overline{\chi}^{WM}) > f(\overline{\chi}^{WP})$ so the result on divorce follows. The result on bargaining power follows from the modification of the probability of divorce and from prediction 2.

**Prediction 3 (Heterogeneous effect of the reform on divorce and bargaining power by level of ex-ante costs).** Unimodality and Assumption IV guarantee the results as long as $d_h^B - d^A > d_l^B - d^A$, which is true given our assumptions.