Women's Inheritance Rights and Bargaining Power: evidence from Kenya*

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Abstract

In numerous developing countries gender discrimination takes the form of unequal inheritance and property rights. While there seems to be a general consensus that strengthening women's property rights is important for women empowerment, quantitative evidence is scant. I study the effects of a statutory law reform meant to grant Kenyan women equal inheritance rights. Before the 1981 Law of Succession, inheritance was determined by the customary law of the ethnic group of the deceased, and, in the case of Muslims, by Islamic law. Customary law does not allow women to inherit, whereas Islamic law grants daughters half the inheritance share that goes to their brothers. The 1981 reform created a single regime which formally granted the same inheritance share to sons and daughters. I study the effects of the reform with a difference-in-differences strategy, exploiting variation in pre-reform inheritance rights across Muslims and non-Muslims. I find that a variety of human capital outcomes are affected: women exposed to the reform are more educated, both in absolute terms and relative to males; they are less likely to undergo genital mutilation and more likely to be medically assisted during childbirth; moreover, they tend to delay marriage and childbearing, and to have better marriage market outcomes. Finally, I look at direct measures of household bargaining power and find that couples formed after the reform are characterized by a more balanced decision making process. I provide robustness checks by showing that these improvements occur across ethnic groups, regardless of initial education level, and are more pronounced for women with fewer siblings, i.e. women for whom the absolute inheritance share is potentially larger. These findings suggest that legal recognition of women's inheritance rights can have an impact even in a context of poor enforcement and in spite of the persistence of deep-rooted social norms.

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1 Introduction

In numerous countries across the developing world gender discrimination takes the form of unequal inheritance and property rights. The denial of a woman's right to inherit land and other property is often claimed by development practitioners and international organizations to significantly undermine women's economic security and independence as well as their access to adequate food and housing (UN Habitat, 2006). According to the 2012 World Bank Gender Equality and Development Report, "the most promising policies to increase women's voice in households center on reforming the legal framework so that women are not disadvantaged in controlling household assets (...): land laws and aspects of family law that govern marriage, divorce, and disposal of property are particularly important" (World Bank, 2012).

Sub Saharan Africa represents a unique setting for studying women's property rights, as land and family rights are governed by multiple and overlapping legal domains, in a complex interplay of customary and statutory law. To date the majority of Sub Saharan countries does not grant equal inheritance rights to men and women. Among official initiatives aimed at remedying discriminatory inheritance practices, a prominent place is taken by legal reform at the statutory level. Most African countries have ratified the 1981 UN Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), which has spurred reforms in national legislation in order to promote equal ownership and inheritance rights throughout the 1980s and 1990s across several Sub Saharan African countries. The effectiveness of these initiatives at the statutory level has been widely disputed, and a vast qualitative literature documents discriminating practices (UN Habitat, 2006; World Bank, 2012; Human Rights Watch, 2003; USAID, 2003).

Quantitative evidence on the effects of these initiatives remains however scant. On the one hand, the property rights literature remains mostly gender neutral. A number of studies across the developing world have shown a correlation between actual female ownership of assets and better nutrition, health and education outcomes for their children (Katz and Chamorro, 2003; Allendorf, 2006, Quisumbing and Maluccio, 2002) and with less domestic violence (Panda and Agarwal, 2005), however such evidence cannot always be interpreted as causal. On the other hand, the household economics literature has looked at the relationship between family law and women's status almost exclusively in developed contexts (Chiappori et al., 2002).

This paper studies the effects of a statutory law reform meant to grant Kenyan women inheritance rights, which I interpret as a shock to women's potential asset ownership. Before the 1981 Law of Succession, inheritance in Kenya was determined by the customary law of the ethnic group of the deceased, and, in the case of Muslims, by Islamic law. The customary law of virtually all ethnicities in Kenya denied women any right of inheritance, whereas according to Koranic law women should receive half of the inheritance share that goes to their brothers. The 1981 reform was meant to create a single inheritance regime to be applied to all Kenyans regardless of ethnicity or religion, and formally established equal inheritance rights for men and women, in formal compliance with CEDAW. The reform encountered widespread resistance and in 1990 pressure by the Muslim community forced the government to create an exemption for Muslims, who were allowed to revert to Islamic Succession law.

I look at the effects of the 1981 Law of Succession and the subsequent 1990 Amendment by exploiting variation in pre-reform inheritance rights across Muslims and non-Muslims, implementing a difference-in-differences strategy. While the existing literature on property rights has focused on the impact of secure rights on physical capital investments, I am interested in how an improvement in women's potential asset ownership affects human capital investment. I find that a variety of human capital outcomes, such as education, health, nuptiality and fertility timing, are significantly affected. Women exposed to the reform are more educated, both in absolute terms and relative to males, they are less likely to undergo genital mutilation and more likely to receive medical assistance during pregnancy and childbirth. Moreover, they tend to delay marriage and childbearing and are matched to higher-quality husbands. These findings are compatible with both an investment and

a bargaining power mechanism: on the one hand, as women have the ability to inherit physical capital, parents might decide to invest more in their human capital; on the other hand, the ability to inherit improves women's bargainign power and shifts human capital investment choices towards their preferences. While I cannot entirely disentangle these channels, I attempt to look at more direct proxies for women's bargaining power based on survey questions on decision making and attitudes, and find that the reform makes women more likely to participate in family decisions, supporting the interpretation that women's bargainign power is indeed enhanced.

My main identification strategy is complemented by several additional checks. First, when sample size allows, I restrict the sample to individuals too old to be affected by the reform and estimate the effects of hypothetical "placebo reforms", finding typically precise zero effects. Second, in order to mitigate the concern that I am simply picking up some converging trend between Muslims and non-Muslims, I rerun my basic specification focusing on one ethnic group at a time, and show that the reform had similar effects across ethnic groups with different pre-reform outcome levels. Third, when available, I exploit information on number of siblings as a source of treatment heterogeneity, showing that the effects of the reform are less pronounced when a woman has a lot of siblings - and hence a smaller potential inheritance. Finally, I can show that there is no statistically significant difference in outcomes between Muslims and non-Muslims for households in districts which were exempt from the 1981 reform.

While no systematic data exists on actual asset ownership by women before and after the reform, a qualitative human rights literature reports significant enforcement problems and emphasizes how local custom strongly opposes women's inheritance (Kameri Mbote, 1995; Cooper, 2011). It is worth emphasizing that the bargaining power hypothesis does not rely on women actually realizing their inheritance rights following the reform, but merely on women having the option to claim their inheritance rights in a court based on a codified law. I view inheritance rules as Chiappori et al. (2002) view divorce laws: as "distribution factors", namely "variables that affect the household members' bargaining position but neither preferences nor the joint budget set" . Chiappori et al. (2002) point out that "factors that affect opportunities of spouses outside marriage can influence the intra-household balance of power ... even when the marriage does not actually dissolve". By the same line of reasoning, it is possible to detect a bargaining power effect of inheritance rights and yet observe no realized inheritance in equilibrium[1].

The contributions of this work are twofold. From the policy point of view, my findings suggest that legal reform at the statutory level can have an impact even in a context of poor legal enforcement and in spite of the persistence of deep-rooted social norms. As many Sub-Saharan African countries are undergoing pro-woman reform or drafting new constitutions, these results indicate that formal legislation can be a starting point even in contexts in which customs are perceived to be very hard to change. Second, this work contributes to the empirical literature on household bargaining by showing the effects of changes in the family law framework on women's status, a relationship which so far has been studied mostly in developed contexts.

The rest of the paper is organized as follows: Section 2 provides a brief overview of the related literature. Section 3 describes the 1981 Kenyan Law of Succession and subsequent amendment, and provides additional background information on the Kenyan context. Section 4 outlines a conceptual framework for interpreting the effects of the reform under study. In sections 5 and 6 I present my empirical strategy and data sources and in section 7 I discuss my results. Section 8 concludes.

[1] Indeed in the case of the Hindu Succession Law, studied by Roy (2011) and Deininger et al (2010), it is not clear that women actually started inheriting more after non-discriminatory inheritance law was passed. However, both authors find large positive effects on the education of girls.

2 Literature

This work lies at the intersection of several strands of the literature: that on gender and security of property rights, that on household decision making and that on intergenerational transfers and social norms.

The economic consequences and efficiency effects of secure property rights have been widely studied both in rural and in urban contexts. Among studies which take a gender-based approach, Udry (2008) and Goldstein and Udry (2008) show that productivity losses are specifically associated to tenure insecurity for women. In urban settings, Field (2005) looks at the fertility consequences of women's titles and Yang (2011) studies how consumption choices change following the acquisition of an individual title.

It is now widely recognized that a unitary household model may be a poor description of reality and that, with gender-related preferences, how resources are distributed within the household will affect intra-household bargaining and associated socio-economic outcomes. Women's ability to control and access resources has been shown to translate into higher investment in children's education, health and nutrition in a variety of contexts. In South Africa, receipt of pensions by females as compared to males affected anthropometric status of girls, suggesting differential preferences by gender (Duflo, 2003). In China, higher female incomes following agricultural reforms increased the survival rates for girls (Qian, 2008). In India, exogenous increases in female income among lower castes significantly increased investment in schooling, particularly for girls (Luke and Munshi, 2007). At a more descriptive level, Agarwal and Panda (2005) have shown that women owning immovable property face lower risk of marital violence than those without.

The importance of family law for household bargaining has been emphasized by Chiappori et al (2002), who develop a structural model viewing the intra-household distribution of power as affected by outside opportunities, including legislation on the assignment of property rights in case of divorce. In the context of developed countries, considerable attention has been devoted to changes in the US divorce legislation which favored women (Chiappori et al., 2002; Stevenson and Wolfers, 2006; Stevenson, 2007). The impact of family legislation in developing countries is less studied. In the context of Bangladesh, Ambrus et al (2010) show that the value of dowry and prenuptial agreements increased when constitutional changes erected legal barriers to polygamy and decreased after additional divorce costs were imposed on men. Carranza (2012) studies how changes in Islamic family and inheritance law in Indonesia have affected fertility behavior and son preference.

Intergenerational transfers in developed countries have been viewed mostly through the lens of the wealth model (Becker and Tomes, 1979) or the strategic bequest model (Bernheim et al., 1986). In the context of developing countries, traditional kinship systems and inheritance rules have been studied with an emphasis on how parents rationally incorporate social norms which constrain their ability to make bequests (Goetghebuer and Platteau, 2001; Mobarak, Kuhn and Peters, 2009; Platteau and Baland, 2001; La Ferrara, 2007).

A number of empirical papers have looked specifically at how changes in inheritance laws impact parents' bequests and investment in their children's human capital. Deininger et al (2011) and Roy (2011) exploit the natural experiment of the amendment to the Hindu Succession Act, showing that that girls' educational attainment increases as they are granted equal inheritance rights. They provide alternative mechanisms for this result which rely on the complementarity of education and dowries as means of intergenerational transfer of wealth. La Ferrara and Milazzo (2011) look at strategic responses of matrilineal and patrilineal ethnic groups to an amendment to Ghana's Intestate Succession law, finding that parents substitute bequests with education. A similar finding is that of Aidoo and Otsuka (2001) and Quisumbing and Otsuka (2001), who study the effects of the evolution of land tenure institutions and matrilineal inheritance practices on agricultural and schooling investments in Ghana and in Sumatra.

3 The case of Kenya – Law of Succession (1981) and subsequent Amendment (1990)

Kenya is a fractionalized country in which ethnic and religious cleavages are salient. According to the 2009 Census, Kenya has a population of 38 million, subdivided in as many as 133 ethnic affiliations, according to the Census disaggregation. The 2009 Census reports that 83% of Kenya's inhabitants are Christians - of which 23% Catholics and 57% Protestants - and 11% Muslims. The remaining 6% is divided among traditional religions, no religion and Hinduism (Kenya National Bureau of Statistics, 2010). These figures have been widely disputed by the Muslim community, who has claimed to be selectively underreported by the government. A more plausible figure for the Muslim population has been suggested to lie between 20 and 30% (The Daily Nation, September 3, 2010). Kenya's Muslims are not a homogeneous group, as they comprise converts from different ethnic groupings, among which notably Somalis and some other nomadic groups, Arabs and people of mixed Arab-African descent. Most Muslims live in the Coastal Province, where their sense of common identity is strongest (Oded, 2000).

As in most Sub-Saharan African countries, property rights in Kenya are defined by a complex interplay of different legal domains: customary law, statutory law and Islamic law. The 1969 Constitution, which is the reference one for the time period considered in this study, explicitly prohibits gender discrimination, in formal compliance with CEDAW, but embraces legal pluralism recognizing the application of customary law in some instances. Indeed, among the most contentious proposed amendments during the recent constitutional review process (2010) was the removal of Section 82(4), which stated that the customary law of an individual's particular tribe could to be applied in cases of "adoption, marriage, divorce, burial, devolution of property on death or other matters of personal law", thus creating an exception with the statutory principle of non-discrimination (Cooper, 2011). In such matters, Islamic law has been applied to Muslims and enforced by Kadhi Courts[2] . Throughout the history of post-colonial Kenya, until the recent constitutional review process, a tension has persisted between the Muslim community, who sought to reinforce and expand the role of Kadhi courts, and Christian leaders, claiming that Islam should not be afforded special rights. (Oded, 2000; Cooper, 2011).

Pre-1981 inheritance regime Before the 1981 Law of Succession Act became operational, there were four separate systems of inheritance for Africans, Europeans, Muslims and Hindus. Since the 1897 Order-in-Council, African customary law in matters of succession was to apply to Africans, as long as it was not "repugnant to justice or morality", a judgment which courts have typically been unable to make. In 1961 the African Wills Ordinance was passed to enable Africans to make written wills, while intestate succession continued being governed by the respective customary law of the deceased. The 1897 Native Courts Regulations Ordinance proclaimed that the law of succession for Muslims was the law contained in the Quran. This continued to apply until independence when the government reaffirmed the position of the Muslims as part of a constitutional bargain, in order to counter their threat to break away or secede from the rest of Kenya. The government assured them that under the new constitutional order, they would be allowed to keep their own personal law. This guarantee was given constitutional backing by section 66 of the Constitution, which provided for the establishment of the Kadhi courts to decide matters of personal law. Finally, the scant

[2]When the Sultan of Zanzibar in 1895 authorized the British to administer the coastal strip of today's Kenya as a protectorate the British agreed to respect the judicial system then in existence, which included Kadhi Courts. With independence in 1963 a new agreement entered into between the governments of Kenya and Zanzibar which guaranteed the existence of the Kadhi Courts at all times in exchange for annexion of Muslim territories to independent Kenya. The courts were enshrined in the independence Constitution in compliance with the agreement and the Kadhi Courts Act enacted in 1967.

European and Hindu population were ruled by the British Indian Succession Act (1865) and by Hindu customary law respectively.

In 1967 a commission appointed by the President began looking into marriage, divorce and inheritance law. A Report on the Law of Succession in Kenya was issued in 1968, recommending a uniform code of inheritance. A succession bill eventually passed in 1972 as the Law of Succession Act (Cap 160), but which only came into force in 1981. The process of drafting and approving the bill was lengthy and highly contentious (Oded, 2000) for both political and substantial reasons. First, depriving local authorities and courts from the legal competence in matters of inheritance was perceived as a threat to the independence of each individual ethnic group, thus altering the already precarious political equilibrium in a highly fractionalized country. The most common reason cited in opposition to the reform was the fear that daughters would be allowed to "inherit too much land", which may enable their husbands, potentially from other clans or ethnic groups, to control the traditional land of their wife's family. This argument has been made again today in the occasion of the debate on the new constitution (Cooper, 2011).

The 1967 Report on Marriage was ignored and to date the Married Women's Property Act of 1882, a remnant of British colonial rule, remains the only statute to govern married women's right to property acquired during a marriage, and it applies to all Kenyan marriages regardless of the type of marriage or regime governing the marriage.

Law of Succession Act (1981) The Law of Succession Act, operational since July 1st 1981, was passed with the intention of merging and consolidating all the four systems of inheritance law into one uniform statute, applicable to all Kenyans. The Law of Succession Act outlines a Western-style type of succession based on bilateral descent, establishing equal inheritance rights for female and male children, regardless of whether married or unmarried, on their parent's property (Section 38). It is applied automatically in case of intestate succession or by the court, in case there is a will but not reasonable support for any dependants. Most people in Kenya die intestate[3]. If there is one surviving spouse and a child or children, the spouse is entitled to an absolute interest in the deceased's personal and household effects, and a life interest in the rest of the estate (e.g. land and house, business, etc.), although this cannot be disposed of without court permission (Sections 35 and 36). The latter provision was meant to protect widows from eviction or property grabbing. Although non-discriminatory in the treatment of the children of the deceased, there are still the vestiges of discriminatory customs in the provisions concerning spouses: when the surviving spouse is a woman, her interest in the property is invalidated if she remarries, whereas a surviving husband maintains his interest also upon remarriage. Children inherit the estate when a surviving spouse dies and, in a woman's case, remarries. If the deceased did not have a spouse or child, the estate goes first to the father, then to the mother if the father is deceased. If both parents are deceased, it goes to the brothers and sisters if there are any, then to their children. In cases of polygamous marriages, the estate is divided among the households according to the number of children in each house. There is no provision for additional protection of the property rights of spouses who were married for longer periods and contributed more towards accumulated property.

Finally, Section 32 exempts from intestacy provisions of the Act "agricultural land, crops on such land and livestock" in ten specific districts specified by gazette notice: Marsabit, Narok, Tana River, Samburu, West Pokot, Turkana, Isiolo, Mandera, Wajir and Kajiado. According to section 3(1) "agricultural land" means land used for agricultural purposes which is not within a municipality or a township or a market, but does not include land registered under the provisions of any written law (UN-HABITAT, 2002). These so-called "gazetted" districts (henceforth: exempt districts) comprise the semi-desertic part of the country, scantly populated and inhabited by nomadic and semi-nomadic pastoral communities. Exempt districts encompass roughly 60% of the territory of Kenya but include only about 15% of the total population according to the 2009 Census (Kenya

[3] A popular say goes: "If you write a will you are looking for death" (Mutongi, 2007).

National Bureau of Statistics, 2010) The reason for exemption is that these are areas where land was owned communally, and as such difficult to apportion to individuals (UN-HABITAT, 2002).

1990 Amendment Between 1981 and 1990, there was intense agitation by the Muslims who regarded the passing of the Law of Succession Act as a repudiation of the assurance given at independence. This debate culminated in one of the moments of maximum tension between the Muslim and Christian community in the post-colonial history of Kenya. The Kenyan Muslim community protested through newspaper editorials, petitions and heated public demonstrations in Mombasa (Oded, 2000). The government gave in to the pressure mounted by the Muslims in 1990, as it was keen to have the Muslim support in view of the transition to multi-partyism, and section 2 of the Succession Act was ultimately amended by Statute Law (Misc. Amendment) Act No. 2 of 1990 to specifically exclude application to Muslims. The Amendment disapplied the Act to persons who at the time of their death were Muslims, and the Kadhi's Court regained jurisdiction to determine questions relating to Muslim succession (Kenya Law Resource Center, 2011).

Islamic Inheritance Law Islamic Inheritance is clearly pinned down in the Quran. A widow receives 1/4 of her husband's estate; women in polygamous marriages receive 1/8 if they are childless. What is left is divided among sons and daughters in such a way that sons receive twice as much as daughters of their father's property. Even if there is no obligation to provide for dependants, only 1/3 of the Muslim's estate can be disposed of by will; at least 2/3 should be dealt with according to Koranic principles i.e. with fixed shares for particular heirs (Kenya Law Resource Center, 2011).

Kenyan customary law A comprehensive source for the customary law of Kenya's various ethnic groups is the Restatement of African Law (Cotran, 1968). Virtually all ethnic groups covered do not allow women to inherit land from their parents nor their deceased husbands. Widows are typically entitled use rights on the marital home unless they remarry, and are sometimes granted use rights on the land as guests of male relatives by blood or marriage. Traditional communities in the Western part of Kenya practice levirate marriage or "widow inheritance": widows are expected to 'marry' into a deceased husband's lineage. This was the traditional way to secure the woman's affiliation within her husband's family (Kameri Mbote, 1995). The vast majority of Kenyan ethnic groups are patrilineal[4].

Awareness about the Law That of inheritance has been perceived as a sensitive and contentious issue from Kenyan independence until the recent constitutional review, and the debate on women's inheritance rights has received over the years considerable media attention. For instance, in 2008 the Kenya Law Reform Commission issued a memorandum to civil society organizations to invite feedback on the existing provisions of the Succession Act. This seems to suggest that even though observed enforcement might be poor, knowledge of the law should be reasonably widespread.

There are no official or systematic reports on the enforcement of the Succession Law nor quantitative evidence on the evolution of women asset ownership following the reform. According to UN-HABITAT (2002) "while in the majority of cases, the rights enjoyed by women under this Act have been upheld, some incorrect interpretations have also been made" and "courts have on occasion ruled to disinherit married daughters". An ambiguity arises from the fact that legal pluralism formally persisted during the period of analysis in the 1969 Constitution's Section 82(4), which recognized customary law to be applicable in matters of personal law. Qualitative accounts from the human rights literature (Kameri Mbote, 1995; Cooper, 2011) typically emphasize the inadequacy of the law in protecting rights of widows and co-widows and the reluctance of courts in enforcing their rights.

[4]Exceptions to the patrilineal rule are represented by the Duruma and Rabai tribes which have a dual descent system, and the Digo which are matrilineal.

4 Conceptual framework

I am interested in the human capital consequences of allowing women to inherit parental property[5]. There are primarily two channels through which such a legal change can impact investments in human capital: a bargaining power channel, and an "optimal bequest" or investment channel. First, allowing women to inherit represents a positive shock to wives' potential asset ownership. In the context of a non-unitary household, this is one of the "distribution factors" which affect intra-household bargaining. Human capital investment choices are affected insofar as the relative bargaining weight of wives increases. Second, holding constant the relative bargaining weights of spouses, the provision of equal inheritance shares for sons and daughters introduces a constraint in bequest decision problem of parents. As parents are forced to bequeath equal shares of physical capital to sons and daughters, the optimal mix of physical and human capital to be bequeathed to future generations will change. The direction of the change depends on whether physical and human capital are complements or substitutes.

The unitary model predicts that household behavior can be changed only by changes in prices and household incomes. In contrast, the collective model posits that a large range of policies can be used to affect household allocation outcomes, such as changes in access to common property resources, credit, public works schemes, and legal and institutional rights. As property rights on land are intimately related to an individual's ability to fulfill subsistence needs outside the family, they make a clear example of those "distribution factors" (Chiappori et al., 2002) or "extra-marital environmental parameters... that shift the threat point" but that, at least in the short run and to first order, "do not affect prices and non-wage income faced by married individuals." (McElroy, 1990). Examples include sex ratios of potential mates and legal rules surrounding marriage and divorce (Chiappori et al., 2002).

In the context of a wealth model of transfers a la Becker (1974) and Becker and Tomes (1979), altruistic parents maximize a collective utility function which includes their children's future incomes as well as their own consumption. The income generating process of children depends on the stock of human capital (health and education) and physical capital (assets) inherited, and could be different for sons and daughters. The model predicts that parents will choose the optimal mix of human and physical capital to bequeath to sons and daughters given their relative comparative advantages in income generating activities. The inheritance reform adds an additional constraint to this problem by introducing a lower bound on the amount of physical capital that should be bequeathed to daughters. The optimal amount of human capital bequeathed to sons and daughters will change, in a direction which depends on whether human and physical capital are complements or substitutes in the income generating process. For example, human capital in the form of education could be a complement for physical capital in the form of a family business, if more education increases the returns to running such business. Human capital in the form of health and nutrition could be a complement to physical capital in the form of family land, if healthier farmers reap higher returns from agricultural land. In both these cases, forcing parents to increase the amount of physical capital bequeathed to daughters would also make them increase the amount of human capital invested in them. Alternatively, human and physical capital could be substitutes. This would yield the opposite prediction: as parents are forced to bequeath more assets to daughters, they substitute human capital for physical capital and disinvest in their daughters' education and/or health.

This discussion should highlight that the effects of improved inheritance rights on human capital

[5]The Law of Succession also included provisions concerning the ability of widows to inherit from their deceased husbands, but I do not focus on this aspect since to first order it should not affect human capital decisions: first, it is not clear that these provisions should affect the bargaining power of the wife while the husband is still alive. Moreover, these norms should not alter significantly the terms of parents' bequest decision problem since the assets inherited by the widow will eventually pass onto the children.

are a priori ambiguous. Education, for instance, could be affected by the inheritance reform in at least three ways. The first channel is mothers' bargaining power: as mothers have a greater bargaining weight, intra-household decisions concerning human capital investments will reflect to a larger extent the preferences of women. Since it is well documented that these preferences tend to be tilted towards the well being of children, and especially girls, we should expect outcomes such as health and education to unambiguously improve for girls and possibly boys as well. Note that this could occur without observing any change in women's actual, realized inheritance. The second channel is the complementarity of education and physical assets: if education increases the returns to physical capital for daughters, once parents are forced to assign to daughters a larger share of physical capital they will also want to provide daughters with more education. Conversely, as boys receive a smaller share of assets, their education should decrease. Note that according to this second model we should observe both an increase in girls' education and an increase in their actual asset ownership. A third channel is substitution between human and physical capital: parents might decide to invest less in the human capital of girls and more in that of boys, to compensate the fact that law now forces them to bequeath the same amount of physical capital to both.

How human capital outcomes respond to changes in inheritance rules is thus ultimately an empirical question which I attempt to address in the next section.

5 Data

All the data used in this study come from the different rounds of Kenyan Demographic and Health Surveys (DHS): 1989 (DHS-I), 1993 (DHS-II), 1998 (DHS-III) , 2003 (DHS-IV) and 2008-2009 (DHS-V). DHS are household surveys with large sample sizes (usually between 5,000 and 10,000 households) which provide data for a wide range of monitoring and impact evaluation indicators in the areas of health and demography, with specific focus on female household members. The core DHS questionnaire is administered to all women aged 15 to 49 in each selected household and contains detailed questions on reproductive and maternal health as well as on the health of the respondent's youngest children. Basic demographic data and information on educational attainment is collected for all other household members as well. In each round, a small subsample of households is selected for an additional questionnaire to be administered to males 15-49. Waves IV and V also include a module on gender with specific questions about household decision making, whereas wave IV includes an additional siblings questionnaire. While waves IV and V are nationally representative, earlier waves exclude the North Eastern province - a semi-desertic area scantly inhabited by nomadic populations, predominantly of Muslim religion. For consistency as well as to avoid potential confounding effects, I exclude households from the North Eastern province from my analysis[6]. My results are qualitatively unchanged if such households are included (results available upon request).

The advantages of DHS data are manifold. First, the relatively large sample size allows me to obtain fairly precise estimates even if the variation I rely on comes from a minority in the population. Second, the high degree of comparability across waves mitigates measurement error problems associated to pooling together different waves. Finally, DHS surveys are among the very few surveys administered in Kenya which report detailed data on religious and ethnic affiliation, an information which the National Statistical Office is typically not willing to disclose given its political sensitivity. The most obvious limitation of my data is that all waves are administered post-reform - with the exception of the 1989 wave which is administered shortly before the 1990 amendment. This implies that I will not be able to employ my difference-in-differences strategy to analyze outcomes measured at the time of the survey - such as current health measures - but only cumulative or past outcomes - such as the accumulated stock of education or the timing of fertility

[6] A natural concern could be that more recent Muslim cohorts are not comparable to earlier ones, as they include nomadic and arguably more traditional households.

onset. Furthermore, I will typically not be able to include any pre-reform household characteristics as controls.

6 Empirical strategy

My main identification strategy exploits within-country variation in pre-reform customary inheritance law across different religious groups. Following Duflo (2001), Bleakley (2011) and, specifically in the case of inheritance, La Ferrara and Milazzo (2011), my basic specification relies on a difference-in-differences between cohorts exposed and not exposed to the reform, across Muslims and non-Muslims. The main identifying assumption is that, absent the change in inheritance rules, the outcomes of interest would have evolved over time following the same linear trend across religious groups. Such a strategy is robust to differences in time-invariant characteristics of different religious and ethnic groups.

The reform under study includes two subsequent legal changes: the 1981 Law of Succession, granting all women a share of parental inheritance equal to that of their brothers, and a subsequent amendment, exempting Muslims from the rule. This generates three different inheritance regimes, as summarized by table 1. In the pre-1981 regime, non-Muslim women inherit a 0 share of assets, while Muslim women inherit half the share which is entitled to their brothers. In the "post 1" regime, between 1981 and 1990, the Law of Succession applies to both Muslims and non-Muslims alike and grants women the same inheritance share as their brothers. In the "post 2" regime, after 1990, the Law of Succession continues to apply to non-Muslims, for which the same share is granted to sons and daughters, but no longer applies to Muslims, who revert to the pre-1981 rule that grants daughters half the share entitled to their brothers. My empirical specification thus includes two different "post" periods: one for the regime in place between 1981 and 1990 ("post 1") and one for the post-1990 one ("post 2").

Consider human capital outcome y of individual i born in year t, belonging to ethnicity e, surveyed in wave w and living in province r, district d at the time of the survey. The basic difference-in-differences specification is:

$$\begin{aligned} y_{itrdw} &= \alpha + \beta_0 \cdot non-Muslim_i + \\ &+\beta_1 \cdot post1_t \cdot non-Muslim_i + \beta_2 \cdot post2_t \cdot non-Muslim_i + \\ &+e_i + \alpha_r + \eta_w + \mu_t + \varphi_r \cdot t + ASAL_d \cdot t + X_{itrdw} + \varepsilon_{itrdw} \end{aligned} \tag{1}$$

where $e_i, \alpha_r, \eta_w, \mu_t$ are respectively ethnicity, province, wave and cohort fixed effects; $\varphi_r \cdot t$ is a province-specific time trend; $ASAL_d \cdot t$ is a time trend specific to Arid and Semi-Arid Lands (ASAL)[7] and X_{itvrdw} are additional controls observed in wave w - for instance, urban residence. The definition of the $post1_t$ and $post2_t$ dummies will vary based on the specific dependent variable considered, depending on how old a cohort should be at the time of reform in order to be affected in each particular outcome[8]. My benchmark specification includes province fixed effects as well as a province-specific linear time trend to capture region and cohort-specific effects that may be correlated with the error term, for instance variation across regions and over time in the supply

[7] ASAL comprise the poorest areas in the country, which the government has identified as needing specific attention and has occasionally targeted with specific policies. For instance, in 1971 school fees were abolished up to the 4th year of primary school in ASAL districts; this policy was extended to the rest of the country in 1973 (Ferre, 2009).

[8] It should be noted that a woman whose parents have died before the reform will not experience any increased bargaining power by changes in inheritance rules, as her potential inheritance has been already realized. Unfortunately in my data I do not have any information on the timing of parents' death and I will necessarily consider as "treated" also women who are not affected by the reform given that their parents have already died. This should attenuate my estimates but not invalidate my identification strategy , since we have no reason to believe that the timing of parents' death is systematically different for Muslims and non-Muslims.

of education. [9] Ethnicity dummies capture time-invariant characteristics of each ethnic group, controlling for different traditions and customs concerning family, marriage and inheritance. Since ethnic boundaries in Kenya are typically coterminous with political and administrative boundaries (Ferre, 2007), ethnic groups can also serve as good proxies for areas of birth. DHS data provide quite detailed information on ethnic affiliation - respondents can choose among 10 different options in earlier waves, 15 in more recent ones[10]. I estimate all my specifications by OLS and cluster standard errors at the household level.

The coefficients of interest are those on the interaction terms $\beta_1$and β_2. Coefficientβ_1 captures the difference between Muslims and non-Muslims in differences between the "post 1" period and the "pre" period; thus, it estimates the impact of the following experiment: allowing women who used to inherit half the share of their brothers to inherit the same share. β_2 captures the difference between Muslims and non-Muslims in differences between the "post 2" period and the "pre" period; thus, it estimates the impact of the following experiment: allowing women who used to inherit a 0 share to inherit the same share as their brothers. A priori we should thus expect $\beta_1$and β_2 to have the same sign, and β_2 to be larger in magnitude than β_1. In practice, a complication arises in the interpretation of coefficient β_2: cohorts exposed to the "post 2" reform are in some cases so young that the previous generation has also been exposed to the reform - specifically, to the "post 1" reform. Given that I typically do not know the year of birth of the mothers of respondents, I cannot exclude these young cohorts from my sample. Thus, for some outcomes, the coefficient β_2 captures a cumulative effect: that of being exposed to the "post 2" reform as well as the effect of having parents exposed to the "post 1" reform.

I complement my main identification strategy with a number of robustness and specification checks, described in more detail when discussing each specific outcome. First, when sample size allows, I restrict the sample to individuals too old to be affected by the reform and estimate the effects of hypothetical "placebo reforms", finding typically precise zero effects. Second, in order to mitigate the concern that I am simply picking up some converging trend between Muslims and non-Muslims, I rerun my basic specification focusing on one ethnic group at a time, rather than pooling together all non-Muslim groups in a single category. I show that the reform had similar effects across different ethnic groups, regardless of whether their pre-reform outcome levels were lower or higher than those among Muslims. Third, when available, I exploit information on number of siblings as a source of treatment heterogeneity. I show that the effects of obtaining inheritance rights are less pronounced when a woman has a higher number of siblings, especially brothers, which suggests that I am indeed picking up the effects of changes in a woman's potential inheritance share rather than some confounded trend.

The reform did not apply to particular types of assets if located in exempt districts. Given the impossibility to identify the district in which parental assets are located, nor the nature of such assets, it is not possible to identify which individuals are unaffected by the reform due to this exemption. For this reason I keep in my sample observations from all districts, and I am reluctant to use the information on household district together with the exemption rule as an additional source of identification. However, I do report estimates for households located in exempt districts at the time of the survey, and typically find a treatment effect close to zero, which can be cautiously interpreted as further evidence that I am indeed capturing the effects of the reform.

Education All DHS waves include information on years of education and educational attainment of all household members, both males and females. Religious affiliation, however, is only

[9] It is in principle also possible to control for household district of residence. Kenya, however, has almost doubled the number of districts between the first DHS wave (1989) and the last one (2008-09), making it sometimes hard to match new districts with the older, coarser definitions. My results are only marginally altered by including district fixed effects (results available upon request).

[10] In order to make ethnicity definitions comparable across DHS waves I draw on ethnic people trees from the Joshua Project, (http://www.joshuaproject.net/joshua-project.php).

available for female respondents. As I am not always able to match males to a female relative whose religion is known, the resulting sample of males that I can use in my education specifications is significantly smaller than that of women. I look at both education measured in years and educational attainment. I define the treatment as being between age 5 and 13 during the "post 1" or "post 2" period. I restrict my sample to individuals above age 20, to ensure they have completed their education and to avoid censoring problems[11].

DHS wave 4 includes a siblings questionnaire which allows me to retrieve the number of siblings of each adult female respondent. I can exploit information on the number of siblings as an additional source of variation in the intensity of the inheritance treatment, the underlying idea being that if a woman has a large number of siblings her expected absolute share of inheritance will be smaller. We should thus expect a smaller effect, in absolute terms, for women with a higher number of siblings. Given that respondents to DHS wave 4 are all too old to be exposed to the 1990 Amendment, in this sample I will only compare "post 1" cohorts to pre-reform ones. In order to test whether the reform differentially affects female education depending on the number of siblings I estimate a triple differences specification:

$$\begin{aligned} y_{itrdw} &= \alpha + \delta_0 \cdot non-Muslim_i + \delta_1 \cdot siblings_i \cdot non-Muslim_i + \delta_2 \cdot siblings_i + \\ &+\delta_3 \cdot post1_t \cdot non-Muslim_i + \delta_4 \cdot post1_t \cdot siblings_i + \\ &+\delta_5 \cdot post1_t \cdot siblings_i \cdot non-Muslim_i + \\ &+e_i + \alpha_r + \eta_w + \mu_t + \varphi_r \cdot t + ASAL_d \cdot t + urban_{itrdw} + \varepsilon_{itrdw} \end{aligned} \tag{2}$$

where $siblings_i$ represents the number of siblings of respondent i. The coefficient of interest is δ_5, which captures the differential impact of the reform for those having one additional sibling.

Female Genital Mutilation DHS waves III, IV and V include a module on "female circumcision" or Female Genital Mutilation (FGM). FGM is widespread in Kenya and is practiced across ethnicities and religious groups, although the prevalence of this practice varies widely from one ethnic group to another. It was officially deemed illegal in Kenya in 2011 (IFHRO, 2011). Respondents of the core questionnaire - women between 15 and 49 - are asked whether they are themselves circumcised and, if so, their age at circumcision. The same questions are asked about their oldest daughters. I construct my sample by pooling together respondents and their oldest daughters. I attribute to daughters the same religion, province and ethnicity as their mothers. 96% of women in the resulting sample are circumcised between age 2 and age 18. I thus define the treatment as being between 2 and 18 in a post reform period and restrict my sample to women above 18 in order to avoid censoring issues.

Maternal health FGM reflects mostly choices made by parents during an individual's teenage and childhood years. I then turn to an adult female health outcome: whether a woman received professional medical assistance during pregnancy and labor. I construct a maternal health sample which the unit of observation is the birth, drawing on the detailed birth histories provided by DHS respondents. Doing so allows me to look not simply at whether different cohorts of women have different practices concerning pregnancy and delivery, but also at whether the same cohort of women behaves differently during pregnancies which occurred before or after the reform. All DHS waves collect information on the births occurred to each respondent in the previous 5 years. For

[11] From independence in 1964 until 1971 Kenyan children would start school at 6 and graduate from primary school at 13. There would then be 4 years of lower secondary, 2 years of upper secondary and 3 years of university - until the age of 22. In 1985 a new system was created which included 8 years of primary school , graduation from primary school at 14, followed by 4 years of secondary school until age 18, and then 4 years of university. Other relevant changes in the education system include the abolition of school fees up to the 4th year of primary school in ASAL lands in 1971 and its extension to most of the country in 1973 up to the 6th year of primary school (Ferre, 2009).

each recorded birth I define two variables: "birth in hospital" is a dummy equal to 1 if delivery took place in a government, private or mission hospital; "professional prenatal care" is a dummy equal to 1 if the mother received prenatal care by a doctor, nurse or midwife.

Since the earliest DHS wave is from 1989 and the latest DHS wave is from 2008, I have information on births occurred from 1984 to 2003, namely all after the first reform period. With these data I can only compare births which occurred after the 1990 Amendment with births occurred before. Consider birth j occurring in year τ to mother i born in year t and denote with υ_τa childbirth year fixed effect. I estimate:

$$\begin{aligned} maternal\,health_{j\tau itrdw} &= \alpha + \beta_0 \cdot non - Muslim_i + \\ &+\beta \cdot post2_\tau \cdot non - Muslim_i + \\ &+motherage_i + motherage_i^2 + birth\ order_j + \\ &+e_i + \alpha_r + \eta_w + \mu_t + \upsilon_\tau + \varphi_r \cdot t + ASAL_d \cdot t + urban_{itrdw} + \varepsilon_{itrdw} \end{aligned} \tag{3}$$

where $post2_\tau$ is a dummy equal to 1 if the delivery took place after 1990. The interpretation of coefficient β in this specification is similar to that of coefficient $\beta_1$in previous specifications: it captures the impact of allowing women who used to inherit half the share of their brothers to inherit the same share.

Nuptiality and fertility timing An inheritance reform is likely to affect total fertility significantly. First, the bargaining power channel suggests that post-reform fertility choices will be tilted towards women's preferences - typically involving a smaller number of children at the optimum. In fact, Sen (2001) argues that women's empowerment, including property rights, is a key instruments for reducing fertility rates. Secondly, as parents take the reform into account in their fertility decisions, they could reduce their target fertility in order prevent the fragmentation of family assets. For instance, it has been frequently argued that the French birth rate dropped very rapidly in the 19th century following the revolutionary or Napoleonic change in the inheritance laws from primogeniture to equal division of estates amongst all children (Garner, 1914).

Unfortunately data limitations do not allow me to look at total fertility, given that cohorts of women exposed to the reform have typically not completed their fertility at the time of the survey. However, I can look at fertility onset and investigate whether there have been shifts in the timing of entry into motherhood and marriage. All DHS waves report the year of marriage of each respondent as well as the year of birth of each of her children. For each woman in the sample I can thus define dummy variables for whether the respondent was married or had become a mother by a given age threshold. I define the treatment as "being of marriageable age in a post reform period". Given the distribution of ages at first marriage in my sample, I consider a broad definition of "marriageable age" as between 12 and 22 years of age. I restrict my sample to women above age 22, in order to avoid censoring issues, and drop women who have been in more than one union, as it is not clear whether the reported year of marriage refers to their first union.

Other outcomes: marriage market , decision making, violence and attitudes In the last part of the paper I focus on outcomes related to marriage, in terms of spousal selection as well as marital behavior. If the reform increases women's bargaining power, women who are of marriageable age after the reform can be expected to be matched to husbands of better quality; moreover, couples formed after the reform should also be characterized by a more balanced decision making process. To address the first issue, I draw husbands' observable characteristics from the husbands questionnaire which is administered to a small sample of women in each DHS wave, starting with wave III. I restrict the sample to women above 22 years of age, with only one union, whose husbands' information is recorded, and define the treatment as "being of marriageable age"

in one of the two post reform periods. The outcome variables I consider are proxies for husband quality: whether the union is polyginous; the age difference between husband and wife; husband's education in years; whether the husband is illiterate; whether he has an agricultural or clerical job at the time of the survey.

Finally, I attempt to look directly at the bargaining power channel by considering self-reported measures of decision making ability, domestic violence and attitudes. DHS waves IV and V contain a specific module on gender with explicit questions on who takes decisions in the family on specific issues, on whether the respondent was ever hurt by a family member and on the respondents' attitudes towards wife beating and refusing sex with her husband . The reference sample in this case comprises all women in DHS waves IV and V above 22 years of age and with only one union.

To cope with the large number of outcomes and the power issues induced by small sample size, I also report summary indicators for husband quality as well as for women's decision making ability, following the procedure outlined in Kling, Liebman and Katz (2007).

7 Empirical results

7.1 Education

Summary statistics from my main education sample are reported in table 2. The average number of years of education is around 6, with a one year approximate gap across religious groups. That Muslims have been lagging behind in education is a well-known fact, which has sometimes been blamed on discriminatory practices in missionary schools (Oded, 2000). Columns (1) and (2) of table 3a report my basic specifications for number of years of education, separately estimated for males and females. The coefficient on the "post 1" interaction is positive and significant for females, negative and insignificant for males. As expected, the coefficient on the post 2 interaction has the same sign and is larger in magnitude, becoming significant also for males. According to these estimates, females receive roughly one more year of education following the "full" reform - going from a zero share to the same share as their brothers - whereas males receive roughly one and a half less year of education. This entails a very sizable reduction of the gender education gap and seems to suggest that parents substitute the education of males for that of females, in a way which is compatible both with a bargaining power channel and with an "optimal bequest" one. Columns (3) to (6) repeat the analysis for two alternative dependent variables related to educational attainment: a dummy for whether an individual has completed primary and secondary school respectively. The estimates confirm the pattern of columns (1) and (2) and are highly significant for females, slightly noisier for males. A girl exposed to the first reform ("post 1") is roughly 8 percentage points more likely to complete primary school, and a similar figure holds for completing secondary school.

Table 3b reports some robustness checks. First, restricting my sample to exempt districts I find insignificant effects for both males and females (cols. (1) and (2)); the coefficient for females, in particular, is significantly reduced in magnitude. This should however be interpreted with caution given the small sample size and the large standard errors. More interestingly, columns (3) to (6) show that the estimates in table 3a are robust to a different, coarser treatment definition - being of age 5 to 18 during a "post" period, i.e. being exposed by high-school age - and to the inclusion of a household-level wealth index. In columns (7) and (8) I restrict the sample to individuals older than 18 in 1981 - thus unaffected - and I estimate the impact of a placebo reform (the treatment being : born after 1955). I find precisely estimated zero effects, which supports my identification strategy.

Overall these estimates suggest a sizable improvement in the education of girls whose schooling decisions were made in the post-reform period, to the expense of boys. These results are in line with those of Deininger et al. (2011) and Roy (2011) who also find an increase in girls' education following improved inheritance rights with the Hindu Succession Act. On the other hand my results

contrast with those of La Ferrara and Milazzo (2011), who find that the education of boys decreases as their inheritance rights improve. In terms of absolute magnitudes, my estimated effect - up to one and a half year difference - is similar to the effects found in the above mentioned studies.

In the analysis conducted so far I have compared Muslims with all non-Muslim ethnic groups pooled together. This masks significant heterogeneity across non-Muslim ethnic groups in pre-reform education levels, as highlighted by table 4. While Muslims are initially less educated than non-Muslims considered as a group, there are individual non-Muslim ethnic groups for which the gap is more pronounced. In table 5 I disaggregate non-Muslims by ethnicity - following the 1989 DHS definition - and estimate my benchmark specification from table 3a considering one non-Muslim ethnic group at a time, when sample size allows. It is interesting to note that my results still hold for virtually all the subsamples, both in terms of significance and magnitude. This suggests that I am not capturing some pre-existing convergence trend but rather the genuine effect of the reform.

In tables 6a and 6b I exploit sibling composition as a source of variation in treatment intensity[12]. Recall that the siblings subsample is drawn from DHS wave 4 only, consists only of females and does not include cohorts of the "post 2" period. Summary statistics are reported in appendix table A1 and show no apparent differences in the average number of siblings of Muslims and non-Muslims. Column (1) in table 6a reports my benchmark years of education regression - similar to column (1) in table 3a - as estimated in the smaller siblings subsample. The main qualitative result - that the reform increases the education of females - is replicated in this smaller sample. Before turning to the triple differences specification of equation (2) it is interesting to analyze split samples individually. Column (2) includes only cohorts not affected by the reform, and runs a difference-in-differences specification comparing Muslims and non-Muslims with different numbers of siblings. The coefficients indicate that a high number of siblings is associated to lower education levels for girls (-0.155) , but less so for non-Muslims (0.262): this is expected, since the pre-reform regime grants zero inheritance rights to non-Muslim females, regardless on the number of siblings. Column (3) considers only non-Muslims, and compares females of pre- and post- cohorts with different number of siblings. The interaction coefficient -0.176 shows that the positive reform effect is attenuated for females with a high number of siblings. Results are noisier - arguably due to small sample size - on column (4), which looks at Muslims only. The full triple differences specification is reported in column (5). The triple interaction coefficient is negative and highly significant, indicating that a higher number of siblings reduces the reform impact of roughly one fourth of a year of education for each additional sibling. Table 6b reports similar specifications considering separately brothers and sisters. The attenuating effect of having a large number of siblings seems larger in absolute terms in the case of brothers. This is consistent with the fact that, in spite of formal equal inheritance rights, males still tend to be favored in practice in inheritance matters.

7.2 Female Genital Mutilation

Summary statistics for the FGM sample are reported in tables 7 and 9. In my sample FGM appears to be equally prevalent in the Muslim as well as non-Muslim community, but aggregate figures mask significant differences across ethnicities, highlighted in table 9. Table 8 shows that both the "post 1" and the "post 2" reform are associated to a highly significant decrease in the probability of female circumcision by as much as 8 percentage points in the "post 1" period and 18 percentage points in the "post 2" period, according to the specification in column (1). While I am not aware of any other estimate that I can directly compare this figure to, this does seem large, as it is more than twice the size of the impact of the urban residence dummy. These estimates remain virtually unchanged when I add household level controls including a wealth index (column (2)). When restricting my sample to exempt districts, I obtain a precisely estimated 0 effect (column (3)). Analogously, a

[12] Unfortunately this strategy is only possible for education, and not for other outcome variables, due to sample size limitations: only one DHS wave contains sibling information, and only education is available for a sufficient number of respondents, across a sufficient number of cohorts.

precise 0 effect is found when restricting the sample to unaffected cohorts and estimating a placebo treatment (column (4)). As FGM arguably reflect choices made by parents during teenage and childhood, these findings can be interpreted as evidence of improved bargaining power of mothers following the reform, which translates into better health outcomes for their daughters.

Table 10 reports the specification in table 8, column (1), considering one ethnic group at a time. This exercise is particularly useful for this outcome variable because of the significant heterogeneity in pre-reform FGM prevalence across ethnic groups. Table 10 shows that the result in table 8 is mostly driven by the Kamba, Kikuyu and Meru groups, which all have a pre-reform FGM prevalence between 50 and 70% (table 9). Not surprisingly, no significant impact is detected when focusing on the Luhya and Luo groups, among which FGM was virtually never practiced (pre-reform prevalence is around 1%). Similarly, no significant impact is found when looking at the Kalenjin and Kisii, which are the groups where FGM was almost universally practiced (84% and 98% prevalence respectively). A natural interpretation is that the inheritance reform reduced FGM rates only in contexts in which this practice was not universal to start with, but was not able to induce significant behavioral changes in groups in which FGM was very deep-rooted.

7.3 Maternal health

Summary statistics for the maternal health sample are reported in table 11. Professional prenatal care and hospital births appear to be slightly less prevalent among Muslims. Table 12 shows that women adopt safer antenatal and birth practices for births occurring after the reform: for women of a given cohort, births which occurred after the "post 2" reform are on average around 7 percentage points more likely to take place in a hospital and to be preceded by professional level antenatal care. These results are only minimally attenuated by the inclusion of controls (cols. (2),(4)) and the reform is estimated to have a precise zero effect in exempt districts (col. (5))[13].

7.4 Nuptiality and fertility timing

Table 13 presents summary statistics for the nuptiality and fertility sample. The timing of child-bearing and marriage seems to be overall similar for Muslims and non-Muslims, with around 50% of women in the sample entering motherhood before age 20. Table 14a shows that women exposed to the "post 1" or to the "post 2" reform are less likely to get married before they are 18 and 20, orders of magnitudes ranging from a 7 to a 17 percentage point decrease. A similar pattern is displayed by nuptiality dependent variables - which is not surprising since age at first birth and age at first marriage are highly correlated. Since the definition of treatment period for these outcomes ("being of marriageable age") overlaps substantially with the definition of treatment in the education sample ("being 5-18") it could be that the coefficients in table 14a are simply picking up the fact that girls exposed to the reform are more educated, rather than a direct effect of inheritance rights on fertility and nuptiality decisions. My results, however, survive the inclusion of a variety of controls, among which wealth and education (table 14b, columns (1),(3),(5),(7)). A placebo treatment administered to unexposed cohorts yields insignificant - although not very precise - results (table 14b, columns (2), (4), (6), (8)).

These results suggest that women exposed to the reform tend to postpone marriage and child-birth. This could in principle translate into a lower total fertility rate, but absent data on completed fertility I cannot distinguish this from a mere shift in timing.

[13] Unfortunately the maternal health sample does not have enough pre-reform years to perform a meaningful placebo test.

7.5 Other outcomes: marriage market, decision making, violence, attitudes

In appendix tables A2 to A7 I present results on marriage market outcomes and self-reported measures of women's empowerment, using marriageable age to define treatment status. The first set of outcomes that I consider are husband characteristics as reported in the husband questionnaire (table A2 for summary statistics, table A3 for results). Women in couples formed post-reform are significantly less likely to marry an illiterate partner and one who is 10 years older or more. A small age difference with the partner is considered a good marriage market outcome as it is typically associated to a higher status of the woman in the couple, less risk of domestic violence and less risk of HIV infection (Measure DHS, 2009). Results for other husband characteristics - whether he is in a polyginous union, education in years, age at marriage and type of occupation - are more mixed, partly due to small sample size. To cope with power issues, I aggregate husband characteristics in a standardized summary measure going from 0 (low quality husband) to 1 (high quality), following the procedure outlined in Kling, Liebman and Katz (2007), and find that the "post 1" reform positively and significantly affects this measure. This result is consistent with women with inheritance making more attractive partners due to the assets that they will bring to the marriage, but it might also reflect greater bargaining power of girls vis-a-vis their parents, which in turn translates into a greater deal of control in spousal choice. The finding that stronger inheritance rights improve women's marital prospects is in line with the results in Deininger et al. (2010), who find evidence of an increase in women's age at marriage relative to men following the Hindu Succession Act.

I then attempt to look at direct indicators of household bargaining practices of couples formed after the reform, drawing on questions on decision making, violence and attitudes from the DHS gender module. To cope with the large number of outcomes and the small sample size, here too I aggregate different responses into standardized summary measures a la Kling, Liebman and Katz (2007). In tables A5, A6 and A7 I report both individual outcome variables - drawn from specific DHS questions - and, in the last column, a summary measure, coded such that higher values represent positive outcomes for women (e.g. more decision making power, or lower domestic violence). Summary statistics for individual as well as summary variables are reported in table A4. Table 5A shows that women exposed to the reform during their marriageable age are significantly less likely to report that their husbands have the final say on a variety of household decisions - from large purchases to the wife's health. Spousal and domestic violence - tables A6 and A7 - do appear to be less prevalent in couples formed after the reform, although estimates are generally noisy and the summary measures are insignificant. Finally, table A8 shows a slight shift in women's self reported attitudes towards refusing sex with their husbands, showing that after the reform women are more likely to consider it "justified".

While small sample size and concerns related to self-reporting should make us cautious in interpreting these estimates, these results seem to further support the idea that the reform had a direct bargaining power effect.

8 Conclusions

In this work I attempt to assess the impact of improved inheritance rights for women on a variety of human capital outcomes. I start by considering education of boys and girls and I compare cohorts who were of school going age before and after the reform. I find that the education of girls improves in absolute terms and relative to that of boys. These effects are attenuated if a woman has a large number of siblings, which supports the idea that I am indeed capturing the effects of the inheritance regime change. This is consistent with the reform having both a bargaining power effect and an investment effect, with parents complementing physical capital with human capital in their optimal bequests. I then look at two female health- related outcomes : Female Genital Mutilation (FGM)

and maternal health, proxied by medical assistance at childbirth. I consider FGM as proxy for daughters' well being and status rather than a form of human capital investment as it is unlikely to have any complementarities. I find a significant decrease in the probability of being mutilated for girls who were children or teenagers after the reform, mostly in ethnic groups where FGM is not universal to start with. This is consistent with a bargaining power channel: mothers who can inherit are less likely to have their daughters mutilated. On the other hand, assistance at childbirth is an outcome which should directly reflect the bargaining power of expecting mothers. I observe that births taking place after the reform are more likely to be assisted by a healthcare professional and to occur in hospital. I finally turn to outcomes related to marriage, finding that women who are of marriageable age after the reform tend to postpone marriage and fertility, select into better marriages and have more self-reported decision making power. Overall, my results provide a quite coherent picture of a general improvement in women's status, as well as health and education. These results are all consistent with a bargaining power effect, although these improvements can also reflect changes in the mix of human and physical capital that parents bequeath to their children in the post-reform inheritance regime. Given that the reform makes both parents and children become "treated" at the same time, an inherent limitation of my identification strategy is that it is not entirely possible to disentangle these two channels. These results can nevertheless be of policy interest as many Sub-Saharan African countries are debating the issue of adopting Western-style inheritance laws. If confirmed by future work, these findings suggest that legal change at the statutory level can have a significant impact on a variety of socio-economic outcomes for women, even in a context of poor enforcement and in spite of the persistence of deep-rooted social norms.

References

[1] Agarwal, B. and P. Panda (2005), "Marital Violence, Human Development and Women's Property Status in India.", World Development 33 (5): 823-50.

[2] Ambrus, A., E. Field, and M. Torero (2010), "Muslim Family Law, Prenuptial Agreements and the Emergence of Dowry in Bangladesh .", The Quarterly Journal of Economics, 125 (3): 1349-1397.

[3] Becker, G. S. (1974). 'A Theory of Social Interactions', Journal of Political Economy, 82, 1063-1093.

[4] Becker, G. S. and N. Tomes (1979), "An Equilibrium Theory of the Distribution of Income and Intergenerational Mobility." Journal of Political Economy, 87 6, 1153-1189.

[5] Bernheim, B. and Andrei Shleifer and Lawrence H. Summers, 1986. "Bequests as a Means of Payment," NBER Working Papers 1303

[6] Besley, T. (1995), "Property Rights and Investment Incentives: Theory and Evidence from Ghana", Journal of Political Economy, 103.

[7] Botticini, M. and Siow, A. (2003), "Why Dowries?", American Economic Review, vol. 93(4)

[8] Bubb, R. (2011), "States, Law, and Property Rights in West Africa", working paper.

[9] Carranza, E. (2012), "Islamic Inheritance Law, Son Preference and Fertility Behavior of Muslim Couples in Indonesia", Working Paper.

[10] Chiappori, P.-A., Fortin, B., and Lacroix, G. (2002), "Marriage market, divorce legislation and household labor supply", Journal of Political Economy, 110, 37- 72.

[11] Cooper, E. (2008) 'Inheritance Practices and the Intergenerational Transmission of Poverty in Africa: A Literature Review and Annotated Bibliography.' CPRC Working Paper No. 116. Manchester, UK: Chronic Poverty Research Centre (CPRC).

[12] Cooper, E. (2010) 'Safeguarding Inheritance: Challenges and Opportunities in African Societies.' CPRC Policy Brief 19. Manchester, UK: Chronic Poverty Research Centre (CPRC).

[13] Cooper, E. (2011). 'Policy Note: Inheritance in Kenya.' CPRC Policy Note 1. London, UK: Overseas Development Institute (ODI) and Chronic Poverty Research Centre (CPRC).

[14] Cotran, E. (1968). Restatement of African Customary Law: Law of Marriage and Divorce in Kenya. Sweet and Maxwell, London.

[15] Deininger, K., A. Goyal, and H. Nagarajan (2010), "Inheritance Law Reform and Womens Access to Capital? Evidence from India's Hindu Succession Act," World Bank Policy Research Working Paper No. 5338.

[16] Drime, S. (2002), "The Impact of HIV/AIDS on Rural Household and Land Issues in Southern and Eastern Africa", Background Paper prepared for the Food and Agricultural Organisation, Sub-Regional Office for Southern and Eastern Africa.

[17] Duflo, E. (2001), "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment", American Economic Review, Vol. 91 No. 4.

[18] Duflo, E. (2003), "Grandmothers and Granddaughters: Old-Age Pensions and Intrahousehold Allocation in South Africa," World Bank Economic Review, Oxford University Press, vol. 17(1), pages 1-25.

[19] Ellis, A. (2000), "Gender and economic growth in Kenya: unleashing the power of women", The World Bank.

[20] Ezzell, C. (June 2001). "The Himba and the Dam". Scientific American 284 (6): 80–90

[21] Fafchamps, M. (1998), "Intrahousehold Access to Land and Sources of Inefficiency", in Access to Land, Rural Poverty, and Public Action, Alain de Janvry, Gustavo Gordillo, Elisabeth Sadoulet, and Jean-

[22] Ferré, C. (2009), "Age at First Child : Does Education Delay Fertility Timing? The Case of Kenya", World Bank Policy Research Working Paper 4833.

[23] Field, E. (2003) , "Fertility Responses to Land Titling: The Roles of Ownership Security and the Distribution of Household Assets ", working paper.

[24] Garner, J. (1914), "The Decreasing Population of France", The Popular Science Monthly,85(15): 247-259

[25] Goldstein, M. and C. Udry (2008), "The Profits of Power: Land Rights and Agricultural Investment in Ghana", Journal of Political Economy, vol. 116(6).

[26] Government of Kenya (2006), Submission to the United Nations Committee on. Economic, Social and Cultural Rights

[27] Human Rights Watch Report (2003), "Double Standards: Women's Property Rights Violations in Kenya"

[28] International Development Research Centre (IDRC) (2011), "Brief project paper : women's access to land and their household bargaining power; a comparative action research project in patrilineal and matrilineal societies in Malawi"

[29] IFHRO (2011), "Kenya bans female genital mutilation" , http://www.ifhhro.org/news-a-events/289-kenya-bans-female-genital-mutilation

[30] Kameri Mbote, P. (1995), "The Law Of Succession In Kenya: Gender Perspectives In Property Management And Control". Women And Law In East Africa, Nairobi.

[31] Kameri Mbote, P. (2002) , "Gender Dimension Of Law, Colonialism And Inheritance In East Africa: Kenyan Women's Experiences", 35/3 Verfassung Und Recht In Ubersee. African Studies Quarterly, 7(4), pp. 1–19.

[32] Katz, E., and J. Chamorro (2003). 'Gender, Land Rights, and the Household Economy in Rural Nicaragua and Honduras', paper presented at the annual conference of the Latin American and Caribbean Economics Association, Puebla, Mexico, October 2003.

[33] Kenya National Bureau of Statistics (2010), Census 2009

[34] Kling, J.R., J. B. Liebman, and L.F. Katz (2007), "Experimental Analysis of Neighborhood Effects", Econometrica, 75 (1): 83–119.

[35] La Ferrara, E. (2007), "Descent Rules and Strategic Transfers. Evidence from Matrilineal Groups in Ghana" , The Journal of Development Economics, 83(2)

[36] La Ferrara, E. and A. Milazzo (2011), "Social Norms, Inheritance and Human Capital. Evidence from a Reform of the Matrilineal System in Ghana", mimeo.

[37] Luke, N. & K. Munshi (2011). "Women as agents of change: Female income and mobility in India," Journal of Development Economics, Elsevier, vol. 94(1), pages 1-17, January.

[38] McElroy M.B.(1990), "The Empirical Content of Nash-Bargained Household Behavior", The Journal of Human Resources, Vol. 25.

[39] Measure DHS (2009),"Kenya: DHS, 2008-09 - Final Report"

[40] Mobarak, A. Mushfiq, R. Kuhn, and C. Peters (2009), "Marriage Market Effects of a Wealth Shock in Bangladesh" mimeo, Yale University.

[41] Mutongi, K. (2007), "Worries of the heart: widows, family, and community in Kenya " , University of Chicago Press.

[42] North, Douglass C. (1990), "Institutions, Institutional Change and Economic Performance", New York, NY: Cambridge University Press.

[43] Oded, A. (2000) "Islam and Politics in Kenya"

[44] Okali, C. (1983), "Cocoa and Kinship in Ghana; The Matrilineal Akan of Ghana." Boston: Kegan Paul International.

[45] Panunzi, F., A. Ellul and M. Pagano (2010), "Inheritance Law and Investment in Family Firms." American Economic Review, 100(5): 2414–50.

[46] Peterman A (2011). "Women's property rights and gendered policies: Implications for women's long-term welfare in rural Tanzania." Journal of Development Studies, 47(1): 1-30,

[47] Philippe Platteau (eds.), Oxford University Press, Oxford 2001

[48] Platteau, J-P. (2000), "Institutions, Social Norms, and Economic Development" , Harwood Academic Publishers.

[49] Platteau, J-P. and J-M. Baland (2001), "Impartible Inheritance versus Equal Division: A Comparative Perspective Centered on Europe and Sub-Saharan Africa", in De Janvry, A., G. Gordillo, E. Sadoulet and J.-P. Platteau (eds.), Access to Land, Rural Poverty, and Public Action, Oxford: Oxford University Press.

[50] Qian, N. (2008), "Missing Women and the Price of Tea in China: The Effect of Sex-Specific Earnings on Sex Imbalance," The Quarterly Journal of Economics, MIT Press, vol. 123(3), pages 1251-1285, August.

[51] Quisumbing, A. and K. Otsuka (2001), "Land Inheritance and Schooling in Matrilineal Societies: Evidence from Sumatra." World Development, 29(12).

[52] Quisumbing, A., E. Panyongayong, J.B. Aidoo and K. Otsuka (2001), "Women's Land Rights in the Transition to Individualized Ownership: Implications for the Management of Tree Resources in Western Ghana", Economic Development and Cultural Change, 50(1).

[53] Quisumbing, A.R., and J. Maluccio (2003), "Resources at Marriage and Intrahousehold Allocation: Evidence from Bangladesh, Ethiopia, Indonesia, and South Africa", Oxford Bulletin of Economics and Statistics 65: 283-327.

[54] Schneider, D. M. (1961), The distinctive features of matrilineal descent groups. Introduction. In Schneider, D. M. and K. Gough (eds) Matrilineal Kinship. Berkeley: University of California Press.

[55] Sen, A. (2001), "Development As Freedom", Alfred A. Knopf, Inc., New York.

[56] Stevenson, B. 2007. "The Impact of Divorce Laws on Marriage-Specific Capital." Journal of Labor Economics, 25(1), 75-94.

[57] Stevenson, B. and J. Wolfers. 2006. "Bargaining in the shadow of the law: Divorce laws and family distress." Quarterly Journal of Economics, 121(1), 267-288.

[58] Strickland, R.S. (2004), "To Have and To Hold: Women's Property and Inheritance Rights in the Context of HIV/AIDS in sub-Saharan Africa", International Center for Resarch on Women: Washington DC.

[59] The Daily Nation, "Kenya: Muslims Dispute Census Figures", 3 September 2010

[60] Tripp, A.M. (2004), "Women's movements, customary law and land rights in Africa: the case of Uganda".

[61] UN-HABITAT (2002) "Rights and Reality: Are women's equal rights to land, housing and property implemented in East Africa?"

[62] UN Habitat (2005), "Paper 6: Islamic Inheritance Laws And Systems", Islam, Land & Property Research Series.

[63] UN Habitat (2006), "Progress report on removing discrimination against women in respect of property and inheritance rights". Tools of improving women's secure tenure, series 1, no. 2. Nairobi, Kenya.

[64] UN Habitat (2006), "Progress Report on Removing Discrimination Against Women in Respect of Property and Inheritance Rights", Nairobi: United Nations Centre for Human Settlements.

[65] USAID (2003). "Women's Property and Inheritance Rights: Improving Lives in Changing Times", Final Synthesis and Conference Proceedings Paper. Washington DC: USAID.

[66] World Bank (2012), "Women, Business and the Law 2012 report".

[67] Wagner, N. (2011), "Why female genital cutting persists", working paper.

[68] Wang S-Y. (2011), "Property Rights and Intra-Household Bargaining", working paper.

Table 1: Inheritance Regimes

	parental assets inherited by daughters / parental assets inherited by sons		
	pre	*post 1*	*post 2*
	pre 1981	1981-1990	post 1990
Muslims	0.5	1	0.5
non-Muslims	0	1	1

Table 2: summary statistics - education sample

	females								
	Total			Muslims			Non-Muslims		
	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev
Muslim	32885	0.069	0.253	2268	1	0	30617	0	0
Urban	32885	0.245	0.430	2268	0.513	0.500	30617	0.226	0.418
Birth year	32885	1963	13.805	2268	1964	14.219	30617	1963	13.768
Age	32885	35.771	12.629	2268	36.108	12.969	30617	35.746	12.603
Wealth Index (1 to 5)	26513	3.226	1.426	1950	3.362	1.556	24563	3.215	1.414
Years of education	32885	5.951	4.519	2268	4.063	4.523	30617	6.091	4.487
Completed primary school	32885	0.454	0.498	2268	0.301	0.459	30617	0.465	0.499
Completed secondary school	32885	0.139	0.346	2268	0.086	0.280	30617	0.143	0.350

	males								
	Total			Muslims			Non-Muslims		
	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev
Muslim	23581	0.069	0.253	1624	1	0	21957	0	0
Urban	23581	0.266	0.442	1624	0.556	0.497	21957	0.245	0.430
Birth year	23581	1961	15.283	1624	1962	15.333	21957	1961	15.277
Age	23581	38.764	13.826	1624	39.275	14.377	21957	38.726	13.784
Wealth Index (1 to 5)	21831	3.312	1.432	1523	3.491	1.546	20308	3.298	1.422
Years of education	23581	7.625	4.376	1624	6.371	4.836	21957	7.718	4.326
Completed primary school	23581	0.640	0.480	1624	0.538	0.499	21957	0.647	0.478
Completed secondary school	23581	0.245	0.430	1624	0.192	0.394	21957	0.248	0.432

Table 3a : education

Dependent variable	*Years of education*		*Completed primary school*		*Completed secondary school*	
	(1)	(2)	(3)	(4)	(5)	(6)
	females	males	females	males	females	males
aged 5-13 in post 1 * non-Muslim	0.381**	-0.214	0.088***	-0.011	0.080***	0.012
	(0.187)	(0.242)	(0.021)	(0.026)	(0.014)	(0.022)
aged 5-13 in post 2 * non-Muslim	1.054**	-1.590**	0.195***	-0.138**	0.155***	-0.167**
	(0.485)	(0.622)	(0.056)	(0.070)	(0.036)	(0.079)
non-Muslim	0.792***	1.124***	0.060***	0.081***	0.0521***	0.101***
	(0.132)	(0.174)	(0.014)	(0.019)	(0.00898)	(0.014)
urban	2.293***	2.182***	0.226***	0.180***	0.162***	0.199***
	(0.071)	(0.082)	(0.008)	(0.009)	(0.007)	(0.009)
Observations	32,885	23,581	32,885	23,581	32,885	23,581
R-squared	0.415	0.314	0.275	0.215	0.215	0.208

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: age, age squared; ethnicity, DHS wave, province, province * time trend, ASAL * time trend and birth year fixed effect. All DHS waves; individuals above 20 years of age.

Table 3b: education - robustness

Dependent variable: years of education								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	exempt districts							
	females	males	females	males	females	males	females	males
aged 5-13 in post 1 * non-Muslim	0.102	-1.531						
	(0.594)	(0.876)						
aged 5-13 in post 2 * non-Muslim	0.612	0.903						
	(1.167)	(1.612)						
aged 5-18 in post 1 * non-Muslim			0.349*	-0.185	0.389**	-0.236		
			(0.180)	(0.236)	(0.195)	(0.241)		
aged 5-18 in post 2 * non-Muslim			1.085**	-1.600**	0.795*	-1.747***		
			(0.489)	(0.630)	(0.466)	(0.592)		
placebo: born after 1955 * non-Muslim							0.034	0.056
							(0.307)	(0.397)
non-Muslim	1.001	1.635**	0.757***	1.136***	0.859***	1.197***	1.187***	1.115***
	(0.664)	(0.723)	(0.143)	(0.193)	(0.164)	(0.199)	(0.205)	(0.256)
urban	1.133**	0.933	2.296***	2.181***	0.431***	0.477***	2.820***	2.594***
	(0.448)	(0.617)	-0.071	-0.082	-0.08	-0.089	(0.165)	(0.151)
wealth_index					1.104***	1.031***		
					(0.0198)	(0.0232)		
Observations	1,253	1,025	32,885	23,581	26,513	21,831	9,924	9,480
R-squared	0.445	0.397	0.415	0.314	0.495	0.376	0.350	0.326

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: age, age squared; ethnicity, DHS wave, province, province * time trend, ASAL * time trend and birth year fixed effect. All DHS waves; individuals above 20 years of age. Column (8): individuals older than 18 in 1981.

Table 4: Pre-reform average years of education

Ethnicity	females	males
Kalenjin	2.5	4.8
Kamba	3.2	6.1
Kikuyu	5.1	7.6
Kisii	3.5	6.7
Luhya	4.2	7.1
Luo	3.5	6.7
Meru/Embu	3.5	5.9
Mijikenda/Swahili	1.3	4.3
other	3.5	5.6
Total non-Muslims	3.6	6.4
Total Muslims	2.2	4.8

All DHS waves; individuals above 20 years of age, born before 1962.

Table 5: education across ethnic groups

Dependent variable: years of education

	Kalenjin		Kamba		Kikuyu		Kisii	
	females	males	females	males	females	males	females	males
aged 5-13 in post 1 * non-Muslim	1.407***	0.137	1.167***	-1.024	0.381	-0.830	0.988**	-0.592
	(0.344)	(0.772)	(0.300)	(0.656)	(0.298)	(0.629)	(0.400)	(0.820)
aged 5-13 in post 2 * non-Muslim	2.445***	-2.474	2.335***	-2.001	1.672***	-2.416	1.312*	-1.773
	(0.760)	(1.864)	(0.676)	(1.423)	(0.594)	(1.482)	(0.792)	(1.823)
non-Muslim	-1.272	-6.563***	0.113	2.979***	0.660	0.949	-1.322	-0.783
	(1.018)	(0.884)	(0.461)	(1.114)	(0.479)	(0.692)	(1.791)	(1.147)
urban	2.219***	2.212***	1.742***	2.193***	1.886***	2.322***	2.343***	2.923***
	(0.189)	(0.451)	(0.171)	(0.388)	(0.123)	(0.294)	(0.177)	(0.388)
Observations	4,829	1,305	4,564	1,079	7,816	1,721	3,627	841
R-squared	0.319	0.268	0.364	0.323	0.382	0.332	0.375	0.333

	Luhya		Luo		Meru		Mijikenda/Swahili	
	females	males	females	males	females	males	females	males
aged 5-13 in post 1 * non-Muslim	0.727**	-1.052*	1.022***	-0.382	0.853**	-1.314	0.0423	-0.114
	(0.303)	(0.633)	(0.304)	(0.651)	(0.366)	(0.841)	(0.311)	(0.715)
aged 5-13 in post 2 * non-Muslim	1.429**	-2.069	1.917***	-2.549*	1.683**	-2.569	-0.763	-4.446**
	(0.613)	(1.506)	(0.603)	(1.537)	(0.824)	(2.150)	(0.929)	(2.082)
non-Muslim	0.501	0.130	-0.692	-1.258	2.931***	2.080	0.183	0.597
	(0.367)	(0.571)	(0.910)	(0.812)	(0.666)	(1.548)	(0.226)	(0.583)
urban	2.127***	2.230***	2.208***	2.421***	2.085***	2.419***	2.506***	2.065***
	(0.134)	(0.286)	(0.135)	(0.280)	(0.186)	(0.435)	(0.203)	(0.459)
Observations	5,980	1,454	5,338	1,268	3,551	878	2,975	634
R-squared	0.296	0.246	0.354	0.314	0.348	0.325	0.307	0.348

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: age, age squared; ethnicity, DHS wave, province, province * time trend, ASAL * time trend and birth year fixed effect. All DHS waves; individuals above 20 years of age.

Table 6a: education & sibling number

Dependent variable: years of education

	(1)	(2)	(3)	(4)	(5)
	benchmark	pre	non-Muslim	Muslims	DDD
non-Muslim	-0.446***	-0.389***			-0.974***
	(0.157)	(0.123)			(0.151)
nr siblings		-0.155***	0.089***	0.027	-0.157***
		(0.046)	(0.027)	(0.086)	(0.046)
non-Muslim * nr siblings		0.262***			0.266***
		(0.042)			(0.042)
aged 5-13 in post 1 * non-Muslim	2.276***				2.775***
	(0.281)				(0.579)
aged 5-13 in post 1 * nr siblings			-0.176***	-0.109	0.053
			(0.033)	(0.118)	(0.093)
aged 5-13 in post 1 * non-Muslim * nr siblings					-0.251***
					(0.093)
urban	1.313***	0.890***	1.267***	1.378***	1.318***
	(0.081)	(0.086)	(0.085)	(0.243)	(0.080)
Observations	13,301	8,489	12,247	1,054	13,301
R-squared	0.660	0.667	0.675	0.470	0.663

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: age, age squared; ethnicity, province, province * time trend, ASAL * time trend and birth year fixed effect. DHS wave 4; females above 20 years of age.

Table 6b: education & sibling number

Dependent variable: years of education

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	brothers				sisters			
	pre	non-Muslim	Muslims	DDD	pre	non-Muslim	Muslims	DDD
non-Muslim	-0.285**			-0.864***	-0.303**			-0.887***
	(0.130)			(0.155)	(0.124)			(0.152)
nr siblings	-0.312***	0.079**	-0.032	-0.316***	-0.295***	0.114***	0.099	-0.302***
	(0.081)	(0.039)	(0.135)	(0.079)	(0.087)	(0.037)	(0.136)	(0.086)
non-Muslim * nr siblings	0.421***			0.428***	0.438***			0.447***
	(0.079)			(0.077)	(0.084)			(0.083)
aged 5-13 in post 1 * non-Muslim				2.797***				2.569***
				(0.474)				(0.450)
aged 5-13 in post 1 * nr siblings		-0.173***	-0.004	0.240*		-0.207***	-0.255	0.140
		(0.047)	(0.176)	(0.136)		(0.046)	(0.179)	(0.147)
aged 5-13 in post 1 * non-Muslim * nr siblings				-0.449***				-0.380***
				(0.137)				(0.147)
urban	0.891***	1.270***	1.388***	1.323***	0.872***	1.267***	1.392***	1.314***
	(0.087)	(0.086)	(0.242)	(0.081)	(0.086)	(0.085)	(0.243)	(0.080)
Observations	8,489	12,247	1,054	13,301	8,489	12,247	1,054	13,301
R-squared	0.666	0.674	0.469	0.662	0.666	0.674	0.471	0.662

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: age, age squared; ethnicity, province, province * time trend, ASAL * time trend and birth year fixed effect. DHS wave 4; females above 20 years of age.

Table 7: summary statistics - FGM sample

	Total			Muslims			Non-Muslims		
	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev
Muslim	18354	0.075	0.264	1378	1	0	16976	0	0
Urban	18354	0.297	0.457	1378	0.536	0.499	16976	0.277	0.448
Birth year	18354	1972	9.452	1378	1974	9.295	16976	1972	9.457
Age	18354	30.647	8.447	1378	30.205	8.170	16976	30.683	8.468
Wealth Index (1 to 5)	18354	3.313	1.439	1378	3.391	1.570	16976	3.306	1.428
Age of household head	18354	41.370	12.728	1378	42.242	13.626	16976	41.300	12.650
Number of household members	18354	5.333	2.621	1378	5.800	3.120	16976	5.295	2.573
Male-headed household	18354	0.659	0.474	1378	0.628	0.483	16976	0.661	0.473
Circumcised	18354	0.325	0.468	1378	0.316	0.465	16976	0.326	0.469

Table 8: Female Genital Mutilation

Dependent variable: 1 if woman underwent FGM				
	(1)	(2)	(3)	(4)
	all districts	all districts	exempt districts	placebo
aged 2-18 post 1 * non-Muslim	-0.087***	-0.086**	-0.007	
	(0.033)	(0.033)	(0.066)	
aged 2-18 post 2 * non-Muslim	-0.187***	-0.187***	-0.074	
	(0.058)	(0.058)	(0.122)	
placebo: born post 1955 * non-Muslim				0.024
				(0.077)
non-Muslim	-0.057*	-0.062*	-0.269***	-0.173**
	(0.032)	(0.032)	(0.075)	(0.067)
urban	-0.062***	-0.067***	-0.008	-0.043*
	(0.007)	(0.007)	(0.038)	(0.022)
household head age		-0.002***		
		(0.000)		
household size		0.003**		
		(0.001)		
male-headed household		0.008		
		(0.006)		
Observations	18,354	18,354	939	3,181
R-squared	0.436	0.438	0.675	0.528

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: age, age squared; ethnicity, DHS wave, province, province * time trend, ASAL * time trend and birth year fixed effect. DHS waves III, IV and V; females above 18 years of age. Column (4): females older than 18 in 1981.

Table 9 : pre-reform FGM prevalence

Ethnicity	
Kalenjin	83.9
Kamba	55.2
Kikuyu	59.4
Kisii	97.5
Luhya	1.3
Luo	1.4
Meru/Embu	72.4
other	63.9
Total non-Muslims	47.13
Total Muslims	28.95

Percentage points; DHS waves III, IV and V; females above 18 years of age, born before 1963.

Table 10: FGM across ethnic groups

Dependent variable: 1 if woman underwent FGM

	Kalenjin	Kamba	Kikuyu	Kisii	Luhya	Luo	Meru
aged 2-18 post 1 * non-Muslim	0.046	-0.204***	-0.056	0.020	0.029	0.023	-0.113*
	(0.051)	(0.052)	(0.047)	(0.046)	(0.033)	(0.035)	(0.059)
aged 2-18 post 2 * non-Muslim	0.119	-0.190**	-0.198***	0.080	0.058	0.017	-0.376***
	(0.108)	(0.093)	(0.067)	(0.085)	(0.052)	(0.057)	(0.103)
non-Muslim	0.178	0.211***	-0.107	0.063	-0.022	-0.033	-0.068
	(0.141)	(0.077)	(0.110)	(0.211)	(0.029)	(0.033)	(0.113)
urban	-0.070***	-0.051**	-0.100***	-0.064***	-0.028***	-0.039***	-0.091***
	(0.023)	(0.020)	(0.016)	(0.015)	(0.010)	(0.011)	(0.021)
Observations	3,336	3,192	5,271	2,608	4,108	3,564	2,616
R-squared	0.370	0.336	0.238	0.704	0.591	0.599	0.354

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: age, age squared, ethnicity; DHS wave, province, province * time trend, ASAL * time trend and birth year fixed effect. DHS waves III, IV and V; females above 18 years of age.

Table 11: summary statistics - maternal health sample

	Total			Muslims			Non-Muslims		
	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev
Muslim	28197	0.101	0.301	2851	1	0	25346	0	0
Urban	28197	0.201	0.401	2851	0.330	0.470	25346	0.187	0.390
Childbirth year	28197	1996	7.578	2851	2000	6.612	25346	1995	7.484
Mother age at delivery	28197	25.911	6.584	2851	25.572	6.487	25346	25.950	6.593
Wealth Index (1 to 5)	20483	2.840	1.461	2550	2.453	1.589	17933	2.895	1.434
Twin birth	28197	0.030	0.172	2851	0.034	0.180	25346	0.030	0.171
Professional prenatal care	24321	0.803	0.398	2003	0.737	0.440	22318	0.809	0.393
Birth in hospital	28197	0.311	0.463	2851	0.213	0.409	25346	0.322	0.467

Table 12: maternal health

	(1)	(2)	(3)	(4)	(5)
	Professional prenatal care	Professional prenatal care	Birth in hospital	Birth in hospital	Birth in hospital
	all districts	all districts	all districts	all districts	exempt districts
birth post 1990 * non-Muslim	0.073**	0.071**	0.074**	0.074**	-0.017
	(0.029)	(0.029)	(0.030)	(0.030)	(0.175)
non-Muslim	-0.078***	-0.079***	-0.067**	-0.071**	0.047
	(0.028)	(0.028)	(0.028)	(0.028)	(0.193)
urban	0.109***	0.093***	0.268***	0.237***	0.364***
	(0.008)	(0.008)	(0.010)	(0.010)	(0.055)
mother age		0.016***		0.009***	0.010
		(0.003)		(0.003)	(0.010)
mother age squared		-0.000***		-0.000	-0.000
		(0.000)		(0.000)	(0.000)
birth order		-0.017***		-0.038***	-0.016**
		(0.002)		(0.002)	(0.007)
twin		0.068***		0.125***	0.169
		(0.020)		(0.021)	(0.104)
female child		-0.009**		-0.016***	0.005
		(0.004)		(0.005)	(0.019)
Observations	23,770	23,770	27,174	27,174	1,364
R-squared	0.283	0.290	0.224	0.241	0.245

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: ethnicity, DHS wave, province, province * time trend, ASAL * time trend, respondent year of birth and childbirth year fixed effect. All DHS waves; births occurred between 1984 and 2003.

Table 13: summary statistics - nuptiality and fertility sample

	Total			Muslims			Non-Muslims		
	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev
Muslim	23427	0.057	0.232	1336	1	0	22091	0	0
Urban	23427	0.252	0.434	1336	0.522	0.500	22091	0.235	0.424
Birth year	23427	1965	9.985	1336	1968	9.876	22091	1965	9.965
Age	23427	33.210	7.458	1336	32.313	7.180	22091	33.265	7.471
Married by age 15	23427	0.106	0.308	1336	0.172	0.378	22091	0.102	0.303
Married by age 18	23427	0.350	0.477	1336	0.430	0.495	22091	0.346	0.476
Married by age 20	23427	0.551	0.497	1336	0.618	0.486	22091	0.547	0.498
Mother by age 15	23427	0.067	0.250	1336	0.083	0.276	22091	0.066	0.248
Mother by age 18	23427	0.310	0.462	1336	0.324	0.468	22091	0.309	0.462
Mother by age 20	23427	0.544	0.498	1336	0.513	0.500	22091	0.546	0.498

Table 14a: nuptiality and fertility timing

	(1)	(2)	(3)	(4)	(5)	(6)
	married by age 15	mother by age 15	married by age 18	mother by age 18	married by age 20	mother by age 20
marriageable age post 1 * non-Muslim	0.015	-0.002	-0.078**	-0.065*	-0.110***	-0.109***
	(0.032)	(0.023)	(0.038)	(0.036)	(0.037)	(0.038)
marriageable age post 2 * non-Muslim	0.027	-0.012	-0.130**	-0.089*	-0.171***	-0.183***
	(0.038)	(0.030)	(0.051)	(0.048)	(0.049)	(0.051)
non-Muslim	-0.043	-0.009	0.002	-0.001	0.016	0.033
	(0.029)	(0.022)	(0.034)	(0.033)	(0.033)	(0.034)
urban	-0.033***	-0.017***	-0.129***	-0.094***	-0.171***	-0.155***
	(0.006)	(0.005)	(0.009)	(0.009)	(0.010)	(0.010)
Observations	23,427	23,427	23,427	23,427	23,427	23,427
R-squared	0.064	0.022	0.117	0.059	0.116	0.074

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: ethnicity, DHS wave, province, province * time trend, ASAL * time trend and birth year fixed effect. All DHS waves; females above 22 years of age with only one union.

Table 14b : nuptiality and fertility timing - robustness

	married by age 18		mother by age 18		married by age 20		mother by age 20	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
marriageable age post 1 * non-Muslim	-0.090*		-0.087**		-0.108**		-0.141***	
	(0.046)		(0.044)		(0.046)		(0.046)	
marriageable age post 2 * non-Muslim	-0.153***		-0.118**		-0.183***		-0.223***	
	(0.055)		(0.054)		(0.055)		(0.056)	
placebo: marriageable age post 1960 * non-Muslim		-0.086		-0.070		0.054		-0.019
		(0.098)		(0.088)		(0.089)		(0.094)
non-Muslim	0.063	0.043	0.048	0.050	0.067	-0.059	0.108**	0.029
	(0.043)	(0.092)	(0.042)	(0.079)	(0.043)	(0.082)	(0.043)	(0.086)
urban	-0.005	-0.143***	-0.006*	-0.098***	-0.010***	-0.167***	-0.007**	-0.124***
	(0.003)	(0.023)	(0.003)	(0.022)	(0.003)	(0.023)	(0.003)	(0.024)
wealth index	-0.038***		-0.031***		-0.040***		-0.039***	
	(0.001)		(0.001)		(0.001)		(0.001)	
years of education	-0.016		-0.002		-0.053***		-0.048***	
	(0.011)		(0.011)		(0.012)		(0.012)	
Observations	18,265	5,977	18,265	5,977	18,265	5,977	18,265	5,977
R-squared	0.196	0.079	0.118	0.034	0.199	0.076	0.154	0.047

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: ethnicity, DHS wave, district, province, province * time trend, ASAL * time trend and birth year fixed effect. All DHS waves; females above 22 years of age with only one union. Columns (2), (4), (6), (8): only individuals older than 18 in 1981.

Table A1: summary statistics - education & siblings sample

	Total			Muslims			Non-Muslims		
	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev
Urban	13301	0.301	0.459	1054	0.479	0.500	12247	0.285	0.452
Birth year	13301	1984	13.450	1054	1985	13.591	12247	1984	13.438
Age	13301	18.597	13.450	1054	18.128	13.591	12247	18.637	13.438
Years of education	13301	4.732	4.581	1054	2.849	3.945	12247	4.895	4.596
Number of siblings	13301	3.481	3.722	1054	3.239	3.649	12247	3.502	3.728
Number of brothers	13301	1.762	2.108	1054	1.649	2.096	12247	1.772	2.109
Number of sisters	13301	1.719	2.077	1054	1.590	2.015	12247	1.730	2.082

Table A2: Summary statistics - Marriage market outcomes sample

	Total			Muslims			Non-Muslims		
	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev
Polyginous union	2518	0.095	0.294	126	0.079	0.271	2392	0.096	0.295
Age difference with husband	2518	6.264	4.371	126	7.635	5.611	2392	6.192	4.285
Husband more than 10 years older	2518	0.136	0.343	126	0.262	0.441	2392	0.130	0.336
Husband's age at marriage	2518	26.075	4.892	126	26.143	5.612	2392	26.071	4.853
Husband's years of education	2518	8.665	3.980	126	8.016	4.685	2392	8.699	3.937
Husband is illiterate	2518	0.079	0.270	126	0.087	0.283	2392	0.079	0.270
Husband's occupation: agriculture	2518	0.357	0.479	126	0.452	0.500	2392	0.352	0.478
Husband's occupation: clerical / services	2518	0.571	0.495	126	0.468	0.501	2392	0.577	0.494
Husband quality: summary	2518	0.048	0.536	126	-0.009	0.568	2392	0.051	0.534

Table A3: marriage market outcomes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	polyginous union	age difference with husband	age difference >10 years	husband's age at marriage	husband's years of education	husband is illiterate	husband's occupation: clerical / services	occupation: agriculture / unskilled labor	husband quality: summary
marriageable age post 1 * non-Muslim	0.044	-1.209	-0.088	-1.224	2.023	-0.205***	0.310	-0.282	0.386*
	(0.128)	(1.823)	(0.068)	(1.772)	(1.323)	(0.072)	(0.192)	(0.192)	(0.198)
marriageable age post 2 * non-Muslim	-0.087	-1.646	-0.200**	-2.198	-0.027	-0.124	0.240	-0.161	0.349
	(0.139)	(2.011)	(0.100)	(2.038)	(1.403)	(0.076)	(0.207)	(0.208)	(0.216)
non-Muslim	0.018	0.543	0.042	1.648	-1.011	0.197***	-0.252	0.215	-0.299
	(0.127)	(1.704)	(0.046)	(1.679)	(1.243)	(0.067)	(0.184)	(0.184)	(0.191)
urban	-0.021	-1.003***	-0.044**	0.633**	2.470***	-0.064***	0.322***	-0.335***	0.365***
	(0.018)	(0.286)	(0.022)	(0.313)	(0.229)	(0.012)	(0.032)	(0.031)	(0.032)
Observations	2,518	2,518	2,518	2,518	2,518	2,518	2,518	2,518	2,518
R-squared	0.075	0.091	0.060	0.085	0.220	0.119	0.136	0.154	0.179

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: ethnicity, DHS wave, district, province, province * time trend, ASAL * time trend and birth year fixed effect. DHS waves III, IV and V; females above 22 years of age with only one union, whose husbands are selected for males interview. Column (9): summary measure a la Kling, Liebman and Katz (2007).

Table A4: Summary statistics - Decision making, attitudes and domestic violence

		Total			Muslims			Non-Muslims		
		No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev	No. Obs.	Mean	Std Dev
Husband has final say on spending wife's earnings		4647	0.072	0.259	245	0.094	0.292	4402	0.071	0.257
Husband has final say on wife's health		4647	0.209	0.407	245	0.257	0.438	4402	0.206	0.405
Husband has final say on large purchases		4647	0.294	0.456	245	0.327	0.470	4402	0.292	0.455
Husband has final say on daily purchases		4647	0.124	0.329	245	0.224	0.418	4402	0.118	0.323
Husband has final say on visits to family members		4647	0.193	0.395	245	0.294	0.456	4402	0.188	0.390
Husband has final say on food to be prepared		4647	0.039	0.193	245	0.090	0.286	4402	0.036	0.186
Decision making: summary measure		4647	0.052	0.595	245	-0.114	0.769	4402	0.062	0.583
Respondent has ever experienced spousal violence	minor	6672	0.379	0.485	528	0.246	0.431	6144	0.390	0.488
	severe	6672	0.124	0.329	528	0.095	0.293	6144	0.126	0.332
	sexual	6672	0.144	0.351	528	0.085	0.279	6144	0.149	0.356
	with physical consequences	6672	0.131	0.338	528	0.098	0.298	6144	0.134	0.341
Respondent has ever been hurt by	father	6672	0.050	0.218	528	0.053	0.224	6144	0.050	0.218
	brother	6672	0.020	0.140	528	0.028	0.166	6144	0.019	0.138
	father in law	6672	0.001	0.027	528	0.004	0.061	6144	0.000	0.022
Spousal violence : summary measure		6672	0.094	0.802	528	-0.074	0.713	6144	0.108	-0.808
Domestic violence: summary measure		6672	0.046	0.518	528	-0.032	0.535	6144	0.052	-0.516
Attitude towards wife beating	justified in some cases	9505	0.551	0.497	8784	0.547	0.498	721	0.596	0.491
	nr of reasons for which justified	9505	1.524	1.712	8784	1.499	1.699	721	1.825	1.839
Refusing sex with husband	justified in some cases	4458	0.955	0.208	288	0.962	0.192	4170	0.954	0.209
	nr of reasons for which justified	4458	3.264	1.054	288	3.285	1.027	4170	3.263	1.056

Table A5: decision making

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Husband alone has the final say						
	spending wife's earnings	wife's health	large purchases	daily purchases	visits to family members	food	Decision making: summary measure
marriageable age post 1 * non-Muslim	-0.109***	-0.268***	-0.259**	-0.279***	-0.191***	-0.104***	0.542***
	(0.036)	(0.055)	(0.114)	(0.066)	(0.056)	(0.035)	(0.110)
marriageable age post 2 * non-Muslim	-0.087*	-0.321***	-0.300**	-0.324***	-0.143*	-0.121**	0.577***
	(0.048)	(0.077)	(0.122)	(0.079)	(0.077)	(0.048)	(0.135)
non-Muslim	0.087***	0.295***	0.286***	0.278***	0.218***	0.084***	-0.546***
	(0.030)	(0.051)	(0.110)	(0.062)	(0.052)	(0.032)	(0.103)
urban	-0.027***	-0.086***	-0.099***	-0.051***	-0.069***	-0.018**	0.150***
	(0.010)	(0.016)	(0.018)	(0.013)	(0.016)	(0.008)	(0.024)
Observations	4,647	4,647	4,647	4,647	4,647	4,647	4,647
R-squared	0.026	0.093	0.079	0.062	0.096	0.034	0.109

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: age, age squared; ethnicity, DHS wave, province, province * time trend, ASAL * time trend and birth year fixed effect. DHS waves IV and V; females above 22 years of age with only one union. Column (7): summary measure a la Kling, Liebman and Katz (2007).

Table A6 : domestic violence (1)

	(1)	(2)	(3)	(4)	(5)
	Ever experienced spousal violence				
	minor	severe	sexual	with physical consequences	Spousal violence: summary measure
marriageable age post 1 * non-Muslim	0.159	-0.057	-0.087**	0.061	0.016
	(0.151)	(0.038)	(0.044)	(0.133)	(0.186)
marriageable age post 2 * non-Muslim	0.202	-0.031	-0.096*	0.082	0.068
	(0.155)	(0.043)	(0.050)	(0.137)	(0.196)
non-Muslim	-0.110	0.062*	0.112**	-0.063	0.035
	(0.150)	(0.037)	(0.044)	(0.135)	(0.187)
urban	-0.049***	-0.011	-0.012	-0.021*	-0.062**
	(0.017)	(0.011)	(0.012)	(0.012)	(0.027)
Observations	6,672	6,672	6,672	6,672	6,672
R-squared	0.081	0.054	0.032	0.038	0.066

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: age, age squared; ethnicity, DHS wave, province, province * time trend, ASAL * time trend and birth year fixed effect. DHS waves IV and V; females above 22 years of age with only one union. Column (5): summary a la Kling, Liebman and Katz (2007).

Table A7 : domestic violence (2)

	(1)	(2)	(3)	(4)
	Ever hurt by			
	father	brother	father in law	Domestic violence: summary measure
marriageable age post 1 * non-Muslim	-0.070**	-0.026	-0.005	0.076
	(0.029)	(0.017)	(0.003)	(0.113)
marriageable age post 2 * non-Muslim	-0.060*	0.003	-0.000	-0.002
	(0.034)	(0.017)	(0.004)	(0.118)
non-Muslim	0.052*	0.010	0.002	-0.071
	(0.029)	(0.016)	(0.005)	(0.113)
urban	0.006	-0.001	-0.000	0.034*
	(0.008)	(0.005)	(0.001)	(0.017)
Observations	6,672	6,672	6,672	6,672
R-squared	0.029	0.018	0.010	0.065

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: age, age squared; ethnicity, DHS wave, province, province * time trend, ASAL * time trend and birth year fixed effect. DHS waves IV and V; females above 22 years of age with only one union. Column (4): summary measure a la Kling, Liebman and Katz (2007).

Table A8: women's attitudes

	(1)	(2)	(3)	(4)
	Wife beating		Refusing sex with husband	
	justified in some cases	nr of reasons for which it is justified	justified in some cases	nr of reasons for which it is justified
marriageable age post 1 * non-Muslim	0.051	0.107	0.037**	0.336*
	(0.091)	(0.418)	(0.018)	(0.196)
marriageable age post 2 * non-Muslim	0.123	0.420	0.033	0.197
	(0.094)	(0.431)	(0.039)	(0.261)
non-Muslim	-0.096	-0.272	-0.023	-0.172
	(0.090)	(0.415)	(0.016)	(0.199)
urban	-0.153***	-0.552***	0.005	0.081*
	(0.014)	(0.048)	(0.010)	(0.048)
Observations	9,505	9,505	4,458	4,458
R-squared	0.151	0.154	0.110	0.075

Standard errors clustered at the household level. *** p<0.01, ** p<0.05, * p<0.1. Additional controls: age, age squared; ethnicity, DHS wave, province, province * time trend, ASAL * time trend and birth year fixed effect. Columns (1) and (2): DHS waves IV and V. Columns (3) and (4): DHS wave V. Females above 22 years of age with only one union.