

Assets, Wealth and Spousal Violence: Insights from Ecuador and Ghana

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The Gender Asset Gap Project is a joint initiative of an international research team that was formed in 2009 with four objectives: 1) to collect individual-level asset data from three different countries (Ecuador, Ghana and India) in order to demonstrate the importance and feasibility of collecting data on women's access to and ownership of property; 2) to identify the minimal set of questions on individual level asset ownership that are needed in multi-purpose household surveys to calculate the gender asset and wealth gaps; 3) to develop various measures of gender asset and wealth gaps that can be used by national governments to track progress toward Millennium Development Goal 3 on gender equality and women's empowerment; and 4) to identify the critical enabling or constraining social, economic, and institutional factors affecting women's asset ownership in order to help policymakers and others to improve women's claims to productive assets.

The project is housed at the Centre of Public Policy (CPP) at the Indian Institute of Management Bangalore (IIMB). The project team leaders are Hema Swaminathan, IIMB; Abena D. Oduro, University of Ghana; Carmen Diana Deere, University of Florida; Cheryl Doss, Yale University; and Caren Grown, American University. FLACSO-Ecuador hosted the field work in Ecuador.

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Summary. – Spousal violence by men against their partners is one of the most glaring indicators of women’s lack of empowerment. Drawing upon nationally representative surveys for Ecuador and Ghana, we investigate whether women’s asset ownership deters physical and emotional violence by men. We find that the relationship between women’s asset ownership and spousal violence is not the same in the two countries and varies between emotional and physical violence. The main variables that predict both physical and emotional abuse are the woman reporting that the couple has disagreements over finances and that domestic violence is frequent in her community.

Key words - Domestic violence, intra-household bargaining, Africa, Ghana, Latin America, Ecuador

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1. INTRODUCTION

Intimate partner violence, specifically, physical, sexual and emotional abuse by men against their partners or former partners, is one of the most glaring indicators of women's lack of empowerment. Given its prevalence in developing countries (Buvinic et al, 1999; García-Moreno et al, 2006; Hindin et al, 2008), it is not surprising that researchers have turned their attention to the factors that might increase women's bargaining power within households and serve as a deterrent to abuse. Among the new lines of inquiry is the role of asset ownership by women in reducing the likelihood of intimate partner violence.

In a pioneering study, Panda and Agarwal (2005) show that in Kerala, India, women's ownership of their home or of the home and agricultural land is a deterrent to both physical and psychological abuse, whether the incidence of violence among ever partnered women is measured as long-term or over the previous twelve months. The potential protective role of homeownership for women is also confirmed in a recent study in the Indian state of Uttar Pradesh for lifetime physical violence (Bhattacharyya, Bedi and Chhachhi, 2011). Studies on intimate partner violence in the United States have noted that it would be useful to have individual level data on asset ownership to be able to compare the asset holdings of each spouse (Collier-Tenison, 2003). Only in a recent study, however, has it been shown that homeownership by women in the US reduces their likelihood of being subject to current physical abuse (Resko, 2010).

There are a number of reasons why homeownership by women might be a deterrent to intimate partner violence. Owning one's own home generally provides more economic security than being a renter or a squatter.¹ In the case of marital discord, being a homeowner gives women more security than were they to be totally dependent upon a spouse for shelter. Owning a home strengthens a woman's fallback position, i.e., the resources she has access to should the relationship fail. Besides providing a potential escape option (a place to live, should she be able to throw her partner out) being a homeowner may deter spousal violence by simply being a credible exit option, thereby reducing a woman's tolerance to violence (Panda and Agarwal, 2005; Bhattacharyya et al, 2011).

One would expect that rural women's ownership of land in developing countries would strengthen their fall-back position in a similar fashion (Agarwal, 1994; Deere and León, 2001). Land ownership provides women with a potential place where they might build a dwelling should a relationship become too abusive. Moreover, owning agricultural land offers women a potential means of livelihood, either farming the parcel directly themselves or by renting it. Nonetheless, evidence of such a relationship between land ownership and the risk of intimate partner violence thus far is mixed. In a small sample study in Nicaragua, Grabe (2010) finds that the incidence of current physical abuse is lower among women landowners than among non-owners. Panda and Agarwal (2005) report that women owning a land parcel is negatively associated with long-term physical abuse; however, they did not find this result was significant in terms of current physical abuse. Bhattacharyya et al (2011) find women's land ownership to be highly correlated to their ownership of a home such that when both variables are included in a multivariate regression analysis the land ownership coefficient is not significant. Ezeh and Gage (2000) report that, in Uganda, women's ownership of land is positively related to lifetime

physical abuse, a finding they attribute to the degree that ownership of land by women goes against traditional norms. In the areas of Uganda where they drew their sample, women have traditionally only had usufruct rights to land and these rights are obtained primarily through their husbands.

While evidence on the relationship between women's ownership of assets and intimate partner abuse is not yet abundant, these studies do suggest several fruitful avenues for further analysis. Context evidently matters greatly with respect to what asset might serve as a deterrent to spousal abuse. Moreover, the literature thus far has only examined women's ownership of assets, not women's ownership of assets relative to their partners. The rather extensive literature on the role of couple status differences -- whether in education, employment or income-- (Macmillan and Gartner, 1999; Hindin and Adair, 2002; Flake and Forste, 2006) in explaining abuse suggests the potential importance of considering intra-household gender inequalities in asset ownership.

In this paper we investigate the relationship between women's ownership of assets and current spousal physical and emotional violence. We propose that not just asset ownership *per se*, but rather, women's share of couple wealth might be the most appropriate variable for testing the proposition that women's asset ownership serves as a deterrent to spousal abuse. Focusing on women's share of couple wealth allows us to improve on previous studies in three ways. First, a focus on wealth, defined by economists as the value of physical and financial assets (Davies, 2008), provides a more rigorous measure of household socioeconomic status than the use of an index of selected assets or amenities, or flow variables such as income or expenditure. The latter can fluctuate considerably in any given period whereas assets represent a stock that is accumulated over a person's lifetime.

Second, a focus on women's share of couple wealth allows us to adjust for the fact that different assets might be of more or lesser importance to women's bargaining power in different contexts, and places emphasis on the relative value of the assets they own compared to their husbands as a measure of their fallback position. Third, by focusing on women's share of couple wealth, controlling for household wealth, allows us to consider whether the preventive impact of women's share of wealth varies along the wealth distribution.

This analysis of spousal violence among currently partnered women during the previous year is possible because we have recently carried out nationally representative household asset surveys in Ecuador and Ghana where we collected similar asset ownership information at the individual level. The two countries provide an interesting contrast for the study of intimate partner abuse since the gender wealth gap differs significantly between the two. In Ecuador, women own 52.5% of household wealth, approximately their share of the nation's population (Deere and Contreras, 2011). In contrast, in Ghana women own only 30.3 % (Oduro et al, 2011).

2. THE CONTEXT

Ecuador and Ghana are relatively small countries, both geographically and in terms of total population- in 2011, 14.7 million and 25 million, respectively. In the *2011 Human Development Report*, their HDI ranks are #83 and #135, placing Ecuador in the high and Ghana in the medium human development groupings (UNDP, 2011, pp. 163-64). The two countries are representative of their respective regions to the extent that they are neither among the poorest nor better off countries in either Latin America or Africa. Both are rapidly urbanizing, with the share of urban population in 2011 reaching 68% in Ecuador and 52% in Ghana (Ibid.).

Regional studies of the incidence of intimate partner violence in Latin America suggest that Ecuador falls around the middle of the range. A recent comparison of the incidence of lifetime physical abuse of women aged 15 to 49 by a current or previous partner in seven Latin American countries showed that the range was between 9 and 52%. Ecuador fell at the mid-point, with 31% of women reporting lifetime physical abuse (ECLAC, 2009, p. 31). The incidence of lifetime spousal physical violence of women aged 20-44 for a sample of six African countries ranged from 19 to 45% (Hindin et al, 2008). Ghana was at the lowest end of the spectrum with an incidence of 19%.

Table 1 presents the data on the incidence of physical, emotional and sexual violence against currently partnered women in Ecuador and Ghana during the previous twelve months as reported by their respective 2004 and 2008 demographic and health surveys (DHS).² Spousal violence is more widespread in Ghana. Over a third of women report having been abused by their partners in the preceding 12 months compared to about 17% in Ecuador. There are interesting similarities and differences in the patterns of spousal abuse. First, the most frequently reported type of spousal violence reported by women in both countries is emotional abuse, followed by physical abuse and finally sexual abuse. Second, for each type of abuse the incidence is higher in Ghana than it is in Ecuador. The proportion of women reporting emotional abuse in Ghana is more than double that of Ecuador. About 17% of women report physical abuse in Ghana in contrast to about 10% in Ecuador. A third dimension of comparison is the range of violence type reported by each abused woman. The proportion of abused women subjected to two forms of violence is about the same in the two countries. However, a substantially higher proportion of abused women in Ecuador (15%) suffer all forms of abuse compared to Ghana (7%). Thus, even though

spousal violence is more prevalent in Ghana, abused women in Ecuador are more likely to be subject to all forms of violence.

(Table 1 here)

The Ecuador DHS collected information on the circumstances that provoked episodes of spousal violence. The most frequently reported triggers are partner jealousy and drunkenness or drug abuse, followed by work, family and financial problems. The Ghana DHS module unfortunately did not collect this information but earlier work on domestic violence using qualitative methods found women's failure to conform to traditional roles and perform their expected duties could instigate spousal violence (Amoakohene, 2004; Gadzekpo, 1999).

Both countries have adopted a legal framework designed to prevent violence against women. Ecuador's first domestic violence law, the Law against Violence towards Women and the Family of November 1995 (Ecuador, 1995), was the result of years of lobbying by the country's national women's office and feminist NGOs (OPS, 1999). For the first time physical, psychological and sexual violence which fell outside of the criminal code was subject to sanctions.³ Moreover, the law mandated a national system of shelters for abused women, a program for rehabilitation of abusers, and a national prevention program. The law also created special "women and family" police stations to attend to reports of intra-familial violence. The implementation of the law was fairly haphazard until the current administration of Rafael Correa.

Ghana's first Domestic Violence Act was passed in 2007. Domestic violence was defined therein to include physical, sexual, emotional and economic abuse. The Bill, laid before Parliament in 2003, initially faced resistance on the grounds that it would endanger marriages. The coming into

force of Act 732 makes it possible for husbands to be prosecuted for marital rape. Prior to this the Criminal Code of 1960 (Act 29) did not recognize the concept of marital rape.

3. THE DATA

The data utilized for this analysis are drawn from the nationally representative household assets surveys carried out as part of the Gender Asset Gap project, a comparative study that, in addition to Ecuador and Ghana, included the state of Karnataka in India.⁴ The comparative project included six months of qualitative field work in each country and the adaption of the project's baseline questionnaire to each country context.

The Ecuador Household Asset Survey (EAFF) and the Ghana Household Asset Survey (GHAS) were based on a two-stage sampling procedure. Primary sampling units were selected in the first stage. In Ecuador, the primary sampling units were the 2001 national census tracks, stratified according to socio-economic level. Within each of the selected census tracks, households were then drawn with equal probability of selection.⁵ The sample of 2,892 households is representative of rural and urban areas and the two major regional geographic and population groupings of the country, the highlands and the coast.

In Ghana, primary sampling units were selected from each of the ten administrative regions based on the region's share of total population. In the second stage 15 households were randomly selected from each selected enumeration area.⁶ A total of 2,170 households covering the ten administrative regions of the country were surveyed.

Standard informed consent procedures were followed in both countries and respondents were guaranteed anonymity. Both surveys employed two instruments, a household and an individual questionnaire. The household questionnaire consisted of a household registry with the basic socio-economic information on each household member, an assets inventory (including detailed information on individual-level ownership and valuation), and several other modules that varied by country. The individual questionnaire solicited information on the respondent's financial assets and debts, their participation in major household and farm decisions, marital and inheritance regimes, and their experience with domestic violence.

In Ecuador the protocol was to administer the household questionnaire to the principal couple, ideally together, with this status defined as the heterosexual adult pair (married or in a consensual union) who had the most knowledge about the household's assets. The qualitative field work in this country had revealed that more precise answers on the valuation of assets was obtained if the couple could discuss among themselves and come to an agreement on what their assets might be worth if they sought to sell these today. The individual questionnaire was then administered to each partner separately, in a setting that guaranteed privacy. Due to time and cost constraints, the enumerators and respondents were not paired by sex.

In Ghana the household questionnaire was administered to the person most knowledgeable about the household's assets. Both respondents could be present for the household inventory. The individual questionnaire was administered separately and in privacy to each respondent. The protocol was for the interviewer and the respondent to be of the same sex.

Of the 2,892 households interviewed in Ecuador, 68.5% are headed by a couple and 31.5% by a non-partnered (i.e., single, separated, divorced or widowed) head (24.8% by a female, and 6.7%

by a male head) (Deere and Contreras, 2011, p.19). Of the 2,170 households interviewed in Ghana, 62.7% had respondents with monogamous or polygamous partners. Non-partnered females comprised 24.6% of respondents and the remaining 12.6% of households had non-partnered male respondents.

The household asset surveys contained three questions regarding domestic violence. The first question asked the respondent about how common domestic violence was in their community or neighborhood, with the responses including frequently, somewhat frequently, rarely, does not occur, or does not know. They were then asked whether they themselves had been verbally, psychologically, or physically abused in their home during the past year and to mark all that applied. Finally, they were asked to identify the perpetrator(s) of each form of abuse.

In both countries, the definitions of each form of violence followed the categories utilized in the ENDEMAIN 2004 and Ghana Demographic Health 2008 surveys and these informed the training of the enumerators. Physical violence was defined as having been beaten or battered (including being hit, pushed, shoved, assaulted with a weapon); psychological violence as having been subject to insults and threats and being treated with a lack of respect; and verbal violence as being frequently yelled at by another. For purposes of the subsequent analysis, verbal and psychological violence have been grouped together in one category, emotional violence. As discussed below, we are aware of the shortcomings of not having asked specific behavioral questions regarding each form of violence, such as those included in the Conflict Tactics Scale.⁷

Although we asked similar questions regarding domestic violence of both men and women, in the subsequent analysis we confine ourselves to the reports by currently partnered women (married or in a consensual union) of abuse by their spouses, henceforth denoted as spousal

violence. The sub-samples analyzed include only those women in couples where both spouses reside in the household: 1,938 women in Ecuador and 887 women in Ghana.⁸

Table 2 presents our estimates of physical and emotional abuse for Ecuador and Ghana based on the 2010 surveys, defined in a manner designed to be comparable to the DHS survey data presented in Table 1, for women aged 18 to 49.⁹ Emotional violence is more widely reported than physical violence in both countries, consistent with the DHS estimates. The incidence of each type of violence in Ecuador is higher, thus leading to a higher percentage of women reporting any type of violence in 2010 in Ecuador than in Ghana.

(Table 2 here)

A comparison of the incidence of physical violence suggests that the current surveys may be under-reporting its prevalence. In both countries the incidence of women reporting spousal physical abuse is much lower in the asset surveys compared to the DHS surveys (tables 1 and 2). This is probably because our survey instruments did not enquire about specific acts of physical violence, an effect that has been noted in the literature (Garcia-Moreno et al, 2006). In the case of Ecuador, however, we cannot discount the fact that the asset survey took place subsequent to the government's launching of a major campaign against gender violence in 2010 and we may be capturing part of a real decrease in spousal physical violence as a result of growing public awareness.

The EAFF reports a somewhat higher incidence of emotional violence compared to ENDEMAIN 2004 and this could also reflect a growing recognition that emotional violence is not acceptable and should be reported. In contrast, in Ghana, the incidence of emotional violence is lower in the

GHAS than in the earlier DHS survey. Notwithstanding the differences with the DHS surveys, a comparative study on Ecuador and Ghana is interesting because identical questions are used for physical and emotional violence.

4. CONCEPTUAL FRAMEWORK

The occurrence of spousal violence is the result of the interplay of multiple factors. Among these are the characteristics of the victim and her partner, the nature of their relationship, and household and community contexts. We are interested in the role of economic factors and highlight inequalities in the economic status of the two partners, since less attention has been given to these in the literature as compared to behavioral characteristics. Of particular interest is women's ownership of assets.

(a) Women's ownership of assets

Women's ownership of assets, such as the place of residence, agricultural land or any other real estate, may lower the risk of spousal abuse since this should directly enhance women's fallback position- the economic resources that she can count on should a relationship dissolve. Panda and Agarwal (2005) argue that assets have a greater protective effect than simply being employed since employment may be sporadic or seasonal or if women are employed as unpaid family workers they may not have an independent source of income. Ownership of an asset thus provides more security than will employment because it is more permanent. Job opportunities may disappear when there is an economic downturn but the woman will always have access to her asset. Besides providing women with a concrete exit option, the mere perception of this option may serve to deter abuse.

Bhattacharyya et al (2011) acknowledge the general protective effect of asset ownership against spousal violence. However, they posit that an increase in the assets owned by a woman could instigate spousal violence if it leads the husband to feel that he must exert greater control over his wife. Thus, while the protective effect of a woman's ownership of assets cannot be assumed *a priori*, in their empirical investigation for northern India they found, as did Panda and Agarwal (2005) for southern India, that women's ownership of a dwelling is associated with a lower risk of long-term physical spousal abuse. As noted earlier, the evidence on the protective effect of land ownership is mixed, with Panda and Agarwal (2005) finding that it is a deterrent to long-term but not current physical spousal abuse and Bhattacharyya et al (2011) reporting no effect whatsoever, while Ezeh et al (2000) argue that in Uganda land ownership by women has the opposite effect. These findings suggest that context matters greatly.

It is important to broaden the analysis of owned assets beyond the principal residence or agricultural land for various reasons, such as the possibility of joint ownership by the couple of the principal residence. Joint ownership lowers the possibility that home ownership *per se* would give women a clear exit option to avoid spousal abuse since it makes it more difficult for a woman to throw her partner out of the home or to sell the dwelling to be able to live independently off the proceeds. If she owned a separate residence where she could move to or a residential lot where she could build a dwelling this might provide similar deterrent effects to being the sole owner of the place of residence. We thus propose that the ownership of the principal residence, agricultural land and other real estate should be examined together. We expect that ownership of any one or a combination of these real estate assets will have a deterrent effect on spousal violence.

Previous studies also have not taken into account the woman's position as an asset owner relative to her partner. We go a step further and argue that a more important factor in assessing the probability of spousal violence might be the intra-couple distribution of wealth, a measure that requires valuing the assets that each partner owns. Such a measure takes into account the quality and the number of assets that each owns.

(b) Characteristics of the victim and the couple

Most studies of intimate partner violence control for the age and education of the woman. It is posited that an older woman is more likely to know the circumstances that could provoke violence and therefore avoid them. In addition, the older and/or more educated woman might be more likely to gain the respect of her partner. The empirical evidence, nonetheless, on the association between age and education and spousal violence is ambiguous. Studies on domestic violence in north India, Bangladesh, and Mexico found that older women were less likely to be subjected to spousal abuse (Bhattacharyya et al, 2011; Schuler et al, 1996) whilst others in south India and the Philippines (Panda and Agarwal, 2005; Hindin and Adair, 2002) did not find a significant relationship.

When resources such as education and income are distributed between the couple in a pattern that deviates from the expected norm this can create the conditions for spousal violence. The male partner may try to re-establish the status quo through violence. It is therefore appropriate to consider the characteristics of the male partner in relation to those of the female partner. A man older than his wife may be more impatient with her and therefore subject her to abuse. On the other hand, he might be tolerant of his partner's lapses. Panda and Agarwal (2005) found that, in India, women married with much older men have a lower likelihood of being abused emotionally

or physically. In the United States, Tauchen et al (1991) found that violence increases the older the man is relative to the woman. In our contexts, we expect that the smaller the age difference between the partners the less likely the risk of spousal violence.

With respect to education, it is frequently posited that status inconsistencies, irrespective of which partner has more education, will lead to greater intimate partner violence (Flake and Forste, 2006). Women who are better educated than their partners might be at greater risk of experiencing violence in particularly patriarchal societies. If, on the other hand, the man is the better educated of the two he may dominate the relationship and provide the basis for violence. In Cambodia (Yount and Carrera, 2005), Uganda (Ezeh et al, 2000) and in Latin America, depending on the country (Flake and Forste, 2006), status inconsistencies either favoring the male or the female have been found to be associated with higher abuse. Other studies have not found that differences in the educational level of the couple are associated with any form of spousal violence (Panda and Agarwal, 2005). We expect that comparable levels of schooling among the two partners will be a deterrent to abuse.

Much of the recent literature considers that it is not whether the man or woman is employed that is important but rather the wife's employment status relative to her spouse (Macmillan and Gartner, 1999). The risk of violence is likely to be higher when the woman is employed and the man is not. This is because the man is not able to perform the traditional role of provider for the family and this could create conditions for stress and violence. If, on the other hand, the man works and the woman does not this situation is less likely to lead to violence since the traditional male role of breadwinner is being satisfied. However, the dependence of the woman on her partner could also make her vulnerable to abuse, as has been found in a few studies (Ezeh et al, 2000). We expect a lower likelihood of spousal abuse when both partners are employed.

We predict that intimate partner violence will be more likely when the woman earns more than her spouse. In places as distinct as the United States and Uganda, violence increases as women's income approaches or exceeds that of her husband's (Ezeh et al, 2000). An unfavorable income disparity may undermine the man's perception of his role as breadwinner even though her income will supplement the household's economic resources and potentially reduce financial stress (Bhattacharyya et al, 2011). We do not have a clear hypothesis for cases when the man earns more than his partner. This situation could reduce the likelihood of violence because he is fulfilling his traditional role; at the same time, if the woman is dependent on him despite her earning an income, this could place her in a vulnerable position.

Another factor that has been found to be a significant correlate of spousal violence is the childhood experiences of victims and perpetrators. Of particular relevance is whether they grew up in homes where their mothers were victims of spousal abuse (Panda and Agarwal, 2005; Yount and Carrera, 2006). Unfortunately the asset surveys did not collect this information nor did they collect data on whether either partner drank alcohol.

(c) Nature of the relationship

Whether being married or in a consensual union reduces the risk of spousal violence depends on the marital capital or utility that the union provides that cannot be obtained outside the relationship. Farmer and Tiententhaler (1997) propose that marriages will have more marital capital than consensual unions and thus the utility of being married will be higher than the woman's threat level. Married women are therefore more likely to stay in an abusive relationship than those in a consensual union. On the other hand, it could be argued that because consensual unions have less security, violence may be used as a means to maintain commitment to the

relationship. In Latin America, where consensual unions are common, particularly among those at lower socioeconomic levels, these have been found both to be less stable than marriages and to be strongly associated with the incidence of long term physical violence (Gonzales and Gavilano, 1999; Castro Martin, 2002; Flake and Forste, 2006) and current physical and emotional violence (Castro and Casique, 2009). We therefore expect women who are married to be less likely to suffer abuse than those in consensual unions.

A relationship that is characterized by conflict and disagreement has greater chances of being abusive. This aspect of the relationship may be captured by the occurrence or frequency of disagreements between the couple. A number of studies have constructed detailed indices of interpersonal conflict based on the frequency or level of disagreement over a range of typical household decisions (Hoffman et al, 1994; Collier-Tenison, 2003; Gage, 2005). These indices always include conflict over how to spend the household's resources. For example, Collier-Tenison (2003) found that, in the United States, a woman's dissatisfaction with her partner's spending habits significantly increased the odds of intimate partner abuse. Since disagreements can be a trigger of violence, we expect women who report having financial disagreements with their partners to be more likely to experience spousal abuse.

(d) Household and community context

The effect of the presence and number of children in the household on domestic violence has been found to be ambiguous. The presence of young children is likely to increase tensions over financial matters and put more strain on mothers, particularly those who must combine child care and income generating activities (Flake and Forste, 2006; Ellsberg et al, 1999). However, the presence of older children could also protect the mother against violence if they intercede on

her behalf to protect her (Panda and Agarwal, 2005). Tauchen et al (1991) found that, in the United States, young children provide a protective effect against spousal violence, while Panda and Agarwal (2005) found that, in India, more children also has a protective effect. In the context of Ecuador and Ghana, we expect that the greater the number of young children in the household, the greater the likelihood of spousal violence due to the stress effect.

Although spousal violence is generally found among households at all socioeconomic levels, most studies in developing countries find a negative association between the socioeconomic status of the household and the likelihood of spousal abuse (Vyas and Watts, 2009). As in developed countries (Sherraden, 1991; Collier-Tenison, 2003), households higher up the socioeconomic scale are less likely to be resource constrained and live in stressful conditions; moreover, they may also be less likely to report intimate partner violence due to the stigma attached to it (Flake and Forste, 2006; Buvinic et al, 1999; Panda and Agarwal, 2005). While poverty itself may not be the source of domestic violence, as Gonzales and Gavalino (1999) argue, deprivations-- whether the inability to satisfy basic needs, crowded living conditions, unemployment or job instability-- may aggravate the tensions of daily life, provoke conflict and increase the risk of spousal abuse. We thus expect spousal violence to be negatively associated with the level of household wealth. Community and social norms can influence the behavior of individuals. If spousal violence is not frowned upon and is prevalent in a community we expect that this will increase a woman's risk of being subjected to spousal abuse (Buvinic et al, 1999).

5. METHODS

We use logistic regression models to identify the risk factors associated with spousal violence among currently partnered women, 18 years of age or older. We create different samples for the

physical and emotional violence and model them separately. The sub-sample for the regression of physical abuse includes those who report both physical and emotional abuse, whereas the sub-sample for the regression of the emotional abuse excludes physical abuse. We model physical and emotional violence separately, since these have been found to have different correlates (Castro and Casique, 2009; Gonzales and Gavilano, 1999). We exclude women who suffer physical abuse from the emotional regression model because we want to clearly identify the predictors of emotional violence. In the physical violence model the dependent variable is a dichotomous variable that takes a value of 1 if the woman reports being subjected to physical violence and/or physical and emotional violence by her spouse in the last twelve months and zero otherwise. In the emotional violence model the dependent variable takes the value of 1 if the woman reports being subjected to emotional violence and zero otherwise.

Our variable of interest is women's asset ownership. This is introduced in the models using two approaches. The first utilizes four dichotomous variables that indicate whether only the woman owns real estate (i.e. the place of residence, agricultural land or any other real estate), only the man owns real estate, both partners own real estate (i.e. as joint owners or individually) or neither partner own real estate. This approach is different from previous studies that have investigated the association between women's asset ownership and spousal violence (Bhattacharya, 2011; Panda and Agarwal, 2005). We go a step further than previous studies because we consider the ownership of a wider set of major assets, for example, a second dwelling, a residential lot, or a commercial building and we consider women's asset ownership status relative to her partner.

The second indicator of asset ownership is the woman's share of the gross value of the couple's financial and physical wealth. This is a continuous variable with a value that ranges from 0 to 1.

Previous studies have not valued the assets that women own or taken into account the intra-couple distribution of wealth. We propose that the value of what she owns relative to her partner may be a better proxy for a woman's bargaining power and hence, predictor of abuse. We test for the importance of the two sets of asset ownership variables in separate regressions.

We control for the characteristics of the woman, couple status differences, the nature of the relationship, and household and community contexts. The characteristics of the woman include her age in years and years of education. The woman's age in years is mean centered such that the sample average age is subtracted from the woman's age. In this way the intercept of the equations are meaningful and refer to average aged women in the analytic sample.

Couple status differences are measured by age differences, education differences, relative employment status and relative earnings. The age and years of schooling variables are measured as the absolute value of the difference between the woman's and the man's values. The conceptual framework emphasized the relevance of comparing the employment status of the couple. This is done by way of categorical variables for whether the man works and she does not, the woman works and he does not, and neither works, with both working as the reference variable. A similar approach is adopted for the relative earnings of the couple. Three categorical variables are developed based on the woman's report. These are whether the man earns more or the woman earns more in comparison to whether they both earn about the same.

The nature of the relationship is captured by the type of union and the woman's report on whether there have been financial disagreements in the past 12 months. Two categorical variables of the type of union, i.e. consensual and married, are developed for Ecuador. Three categorical variables are developed for Ghana to take into account polygamous marriages.

The household context is described by the number of a woman's children less than 13 years who live in the household, whether the household resides in an urban or rural location and the relative socioeconomic status of the household. In this study, the socioeconomic status of the household is measured using the gross value of physical and financial wealth. It is calculated for each household in the total sample and households are ranked into three wealth categories, differentiating between low, medium and high with categorical variables developed for each.¹⁰

The community characteristics are measured by the woman's report of the prevalence of domestic violence in the community. Each respondent was asked how common domestic violence was in the community and had the option to indicate whether it occurred frequently, somewhat frequently, rarely or not at all. A continuous variable was created that took the value of 0 if domestic violence did not occur (or the person did not know), 1 if it occurred rarely, 2 if it occurred somewhat frequently and 3 if it occurred frequently.

6. EMPIRICAL ANALYSIS

The descriptive statistics for the samples of currently partnered women in Ecuador and Ghana are presented in Table 3. Partnered women in Ecuador are only slightly older (41.3 years) than those in Ghana (39.2). However, there is a large difference in years of schooling; women in Ecuador report an average of 8.2 years whereas women in Ghana report an average of only 4.5. Differences in couple demographic characteristics are also striking. The mean value of the absolute age and education gaps of couples are larger in Ghana than in Ecuador. With respect to marital status, consensual unions are much more common in Ecuador (35.4%) than in Ghana

(13.4%). Marriages in Ghana also include polygamous unions which constitute 11.2% of the sample.

(Table 3 here)

A much higher share of women in Ghana are economically active; in only 8.5% of the couples is only the man employed, compared to 35% in Ecuador. As a result, among the great majority of couples in Ghana, both partners are employed, 85.6%, compared with 58.2% in Ecuador. The majority of women report that their spouses earn more than they do, although women report earning more than partners more frequently in Ghana (16.2%) than in Ecuador (12%). On the other hand, in Ecuador more couples are in relatively egalitarian earning situations, with 18% reporting that both spouses earn about the same, compared with only 3.9% in Ghana. The share of women reporting having experienced financial disagreements with their spouse in the past year is slightly higher in Ecuador (15.1%) than in Ghana (13.4%).

In terms of household characteristics, currently partnered women in Ghana have an average of 1.6 children under the age of 13 living at home, compared with Ecuador's 1.1 children. The couples' sample in Ecuador is much more urban (65.8%) than in Ghana (30.9%). A higher proportion of couples are among the upper third in household wealth in Ghana (46.8%) than in Ecuador (33.1%). With respect to community characteristics, women in Ecuador report a higher incidence of frequent domestic violence (28.4%) in their communities and neighborhoods than they do in Ghana (8.0%).

The asset variables indicate that women in Ecuador are in a much stronger bargaining position than those in Ghana, with Ecuador having a much larger share of households where only women

own real estate or where both spouses own real estate than in Ghana. Women's average share of couple wealth is also much higher in Ecuador, 46.8%, than in Ghana, where it is only 23.2%.

(a) Results: Bivariate Analysis

Tables 4 and 5 show the bivariate relationships between spousal violence and the independent variables for each country. For Ecuador, Table 4 demonstrates that women who do not experience physical violence own a slightly greater share of couple wealth, 47%, compared to the 44% owned by those who do experience it, although this difference is not statistically significant. There is also no significant difference between physically abused and non-abused women in the incidence of women's ownership of a major asset (the residence, agricultural land and/or other real estate), either alone or where both spouses own or own such real estate jointly. The percentage of women who have financial disagreements with their spouses and the percentage who report a greater frequency of spousal violence in the community are significantly higher for women who are physically abused compared with those who are not.¹¹

(Table 4 here)

Women in Ecuador who are victims of physical violence are significantly less likely to have partners who are the only economically active member of the couple (24%) and more likely to be in relationships where both partners are economically active (72%) compared to those who do not suffer physical violence (35 and 58% respectively). Otherwise, there are no significant differences in the other individual, couple and household control variables between physically abused and non-abused women, including the number of a woman's young children present in the household.

There are some important differences in the bivariate relationships for Ecuador when the dependent variable is emotional violence as compared to physical violence. Women who are emotionally abused tend to have significantly greater shares of couple wealth, 51%, and are also significantly more likely to experience financial disagreements than those who do not. Like physical violence, there is no significant difference in household wealth rank between women who are emotionally abused and those who are not, however, women in the upper third of the household wealth distribution are more likely to be emotionally abused. Emotionally abused women also tend to be younger than those who are not (39.1 vs. 41.6 years) and have more years of schooling than those who are not (8.9 vs. 8.1). The incidence of emotional abuse is also significantly more prevalent in urban (74%) than in rural areas (26.3%).

In Ghana, there is no significant relationship between physical abuse and ownership of assets by women (Table 5). Women who are victims of physical violence are no more likely than women who are not victims to own real estate either alone or with their partner. Those who own a higher share of couple wealth appear less likely to be subject to physical abuse than those who own a smaller share, although neither relationship is statistically significant. Women who suffer physical violence are younger, have fewer years of education and are much more likely to experience financial disagreements with their partner than those who do not and these relationships are statistically significant.

(Table 5 here)

In Ghana, in contrast to the case of physical abuse, there is a significant difference in the female share of couple wealth between women who are emotionally abused (18.3%) and women who are not (23.7%). In addition, women who are emotionally abused are more likely to have a

partner who owns real estate while they do not. Emotional abuse in Ghana is also significantly higher among those who have financial disagreements with their spouse than those who do not (48.1 vs. 9.6%). Women who are abused are more likely to be younger, in a consensual union and to report that domestic violence is a frequent occurrence in their community compared to women who do not suffer emotional abuse. To further test these relationships we now turn to multivariate analysis.

(b) Results: multivariate analysis

We constructed several logistic regression models to analyze the factors associated with physical and emotional abuse. Our baseline models exclude the asset-based variables and are presented first. We build on this nested model in Model I by adding the dichotomous asset variables that describe the pattern of asset ownership by the partners; in Model II by adding the woman's share of couple wealth;¹² and Model III by examining the interaction between the woman's share of couple wealth and household socioeconomic status. Tables 6 and 7 present the results for physical violence for Ecuador and Ghana, respectively, and tables 8 and 9 for emotional violence for the two countries.¹³

(i) Physical violence

The baseline model for Ecuador in Table 6 indicates there is a significant positive relationship between physical abuse and financial disagreements among the couple. A woman who has financial disagreements with her partner is 4.9 times more likely to be subject to physical abuse than a woman who does not experience these disagreements. The relative employment position of the couple is also important such that women in couples where only the man is economically active are significantly less likely to be subject to physical abuse than when both are

economically active. In other words, being in a 'traditional male breadwinner' relationship is associated with being 1.7 times less likely to be physically abused. Finally, there is a weakly significant ($p=.107$) effect of reports of domestic violence in the community such that a one unit increase in the perception of community violence results in a 1.2 times greater likelihood of experiencing physical abuse.

(Table 6 here)

Model I does not represent a significant improvement upon the baseline.¹⁴ The coefficient for female only ownership of major assets, while of the predicted negative sign, is not significant. Otherwise, the results remain the same. Model II, adding women's share of couple wealth instead of the relative asset ownership variables, does improve the goodness of fit over the baseline model. The linear coefficient for women's share of wealth is negative and significant. This supports the hypothesis that a woman's higher share of couple wealth acts as a deterrent to physical violence. The squared term adjusts for non-linear effects and is approaching significance ($p=.141$), so we are reluctant to reject the hypothesis that this relationship is strictly non-linear.

The net effect of the woman's share of couple wealth, including the squared term, show the odds of reporting physical abuse drop rapidly as women's share of wealth increases from zero. This trend reaches its minimum where women own approximately 63% of the couple's wealth. A woman with the average share of couple wealth of 47% is estimated to be almost 2.2 times less likely to experience physical abuse than a woman who owns none of the couple's wealth.

Model III examines the interaction between the relative economic standing both of the woman in the couple and the household's socioeconomic status as measured by the household wealth rank.

This model represents a significant improvement over the baseline. The main effect of the woman's share of couple wealth is significant as is the main effect for being in the top third of the household wealth distribution. Moreover, there is a significant interactive effect between women's share of couple wealth and being in the top third of household wealth. Graph 1 presents the effect of this interaction on the odds of reporting physical abuse. For women in the poorest third of the wealth distribution the predicted odds of abuse decrease dramatically as women's share of couple wealth increases. In fact, women in the poorest third of the distribution have both the highest and lowest predicted probability of reporting abuse depending upon what share of couple wealth they own. Increasing from zero share of couple wealth to the entire share represents nearly a 90% decrease in the odds of reporting physical abuse for these women. For women in the middle third of the household wealth distribution, however, the potential decrease is only 38%. This relationship changes sign for women in the upper third of the distribution such that increasing woman's share of couple wealth predicts an increasing probability of physical abuse.

(Graph 1 here)

These results support the hypothesis that women in households that are relatively higher in socioeconomic status are generally less likely to suffer physical abuse. They also support the general hypothesis that as women's share of couple wealth increases, the likelihood of physical abuse decreases. These relationships need to be qualified, however, because the predicted relationship between woman's share of couple wealth and physical abuse depends upon relative household wealth.

The baseline model for Ghana in Table 7 shows that women who have financial disagreements with their partners are four times more likely to suffer physical abuse.¹⁵ Education, by contrast, lowers the likelihood of physical abuse. An increase in a woman's schooling by one year reduces the odds of physical abuse by 21%. Older women are less likely to suffer physical abuse than younger women.

(Table 7 here)

In Model I, relative to both partners owning real estate, when one partner or neither owns real estate the odds of physical abuse increase. However, these relationships are not significant. Neither is the asset variable in Model II (women's share of couple wealth), although it has the expected negative relationship. The inclusion of the asset variables does not change the sign or significance of the variable coefficients in the baseline model noted above nor do they improve upon the goodness of fit.

Model III investigates whether the deterrent effect of a woman's share of couple wealth differs across household wealth categories. The goodness of fit of this model is a slight but not significant improvement over the baseline. Except for the coefficient on the financial disagreements variable that becomes weakly significant ($p < 0.108$), the coefficients of other variables significant in the baseline model maintain their significance. Women's share of couple wealth is negative and it is still not significant, and neither are the interactive terms between the female share and the household wealth categories.

In sum, in Ghana, asset ownership does not appear to be significantly related to physical abuse. These findings may be due to the fact that few women in the survey reported physical abuse and that few women have greater than a 50 % share of couple wealth.

(ii) Emotional violence

The baseline model for emotional abuse in Ecuador in Table 8 indicates that financial disagreements are positively and significantly related to the incidence of emotional violence, similar to the model for physical abuse. For emotional violence there is a significant effect for perceptions of community violence. Moreover, the model also predicts that if the woman earns more than her spouse she will be more likely to suffer emotional abuse than earning the same as he does, such that earning more than her partner predicts she will be two times more likely to suffer emotional abuse. In addition, residing in an urban as opposed to a rural area also relates to a significant increase in the likelihood of experiencing emotional abuse. Women in urban areas are 37% more likely to experience emotional abuse than their rural counterparts.

(Table 8 here)

Once again, Model I, adding the relative asset ownership of the couple, does not improve the goodness of fit of the model, nor are the additional coefficients significant. Model II improves the goodness of fit and while similar coefficients to the baseline model are significant, the coefficient for female share of couple wealth is not significant. This indicates that the female share of couple wealth in Ecuador has a different impact on physical and emotional abuse.

Model III for emotional abuse is also a significant improvement on the baseline. The coefficient for women's share of couple wealth is significant but positively signed, as is being located in the upper third of the household wealth distribution. The interaction between women's share of couple wealth and being located in the mid third socioeconomic level is significant while with the upper third, only weakly so. Graph 2 presents this interaction visually. Surprisingly, this relationship appears almost as an inverse compared with the same interaction on physical abuse

(see Graph 1). Indeed, Graph 2 demonstrates that increasing a woman's share of couple wealth has almost no impact on the probability of emotional abuse for women in the upper third of the household wealth distribution. In contrast, women in the middle and especially the lowest third of the household wealth distribution are predicted to be more likely to suffer emotional abuse the greater their share of the couple's wealth.

(Graph 2 here)

The Ecuador results support the general hypothesis that increasing women's share of couple wealth is associated with an increasing probability of emotional abuse with the exception of the upper wealth category. Likewise, the results support the general hypothesis that being at the lower end of the household wealth distribution is associated with a lower probability of emotional abuse up to relatively high levels of women's share of couple wealth.

In the baseline model for Ghana presented in Table 9 women in polygamous marriages are less likely than those in monogamous marriages to report emotional violence, as are those who reside in urban as opposed to rural areas. As was the case for physical violence in Ghana, financial disagreements between partners are positively associated with the likelihood of emotional violence. Women who have financial disagreements with their partners have 8 times the odds of experiencing emotional violence compared to women who do not have these disagreements ($p < 0.01$). In addition, there is a positive association between domestic violence in the community and the odds of experiencing emotional abuse.

(Table 9 here)

Compared to when both partners own real estate, women have 2.9 times the odds ($p < 0.05$) of experiencing emotional violence when only the male partner owns real estate and 3.6 times the

odds ($p < 0.1$) of experiencing emotional violence when only the female partner owns real estate (Model I). Inclusion of these variables to the baseline model does not change the performance of the other variables. In Model II, an increase in female share of couple's wealth significantly reduces the odds of emotional violence such that a woman with the average share of 23.2% of couple wealth is predicted to be 27% less likely to suffer emotional abuse than a woman with no share of couple wealth ($p < 0.05$). In Model III, when the interactive terms and women's share of couple wealth are added to the baseline model, there is a significant improvement in the goodness of fit although the main effect of woman's share of couple wealth has a positively signed coefficient that is not significant. However, the interactive term with the middle wealth category is negative and significant. This suggests that women residing in households in the middle of the wealth distribution have a lower likelihood of being subjected to emotional abuse as their share of couple wealth increases, shown graphically in Graph 3. While the odds of emotional abuse are initially lower for women at the lowest socio-economic level, these increase rapidly as their share of couple wealth increases, while those for women in the upper third of the distribution decrease.

(Graph 3 here)

For Ghana, the asset variables are more important in explaining the incidence of emotional rather than physical abuse. Women in unions where only one partner owns real estate are at greater risk of emotional abuse compared to when both partners own real estate. However, when women have a greater share of couple wealth this may generally act as a deterrent to emotional abuse but the potential impact of women's share of wealth varies according to the socioeconomic level of the household.

7. DISCUSSION AND CONCLUDING THOUGHTS

The emphasis of this study has been on investigating the role of women's ownership of major assets and their share of couple wealth as deterrents to current spousal physical and emotional violence. We found that these variables are not consistently significant across the two countries and behave differently for models of physical as opposed to emotional abuse. A woman being a major asset owner only significantly reduces the odds of being subject to emotional violence and only in the case of Ghana (Model I, Table 9). Adjusting for other factors, simply owning a dwelling, agricultural land and/or other real estate is not a deterrent to physical abuse in either country. Even though we define this variable more broadly to include other real estate, our results are at odds with what has been found for India (Panda and Agarwal, 2005; Bhattacharyya et al, 2011), suggesting context is extremely important.

We have taken the analysis of spousal violence a step forward by going beyond simply women's ownership of major assets to consider the value of the wife's asset holdings with respect to those of her spouse, which we contend is a better measure of a woman's bargaining power. In Ecuador, women's share of couple wealth is found to be a significant deterrent to physical (Model II, Table 6) but not emotional violence. In contrast, in Ghana, women's share of wealth reduces the odds of emotional but not physical abuse (Model II, Table 9). This analysis thus suggests that a focus on intra-household bargaining power can greatly enhance the study of domestic violence but that women's share of couple wealth is not 'a magic bullet' to deterring it, for again, context matters.

Examining the correlates of physical violence more closely, in neither Ecuador nor Ghana is the likelihood of physical abuse significantly associated with women's household socioeconomic

status (Baseline model and Models I and II). However, when women's share of wealth is interacted with the wealth distribution categories in Model III for Ecuador, the results predict a dynamic relationship between wealth and physical abuse. Women in different strata of household wealth face different pressures. While increasing women's share of wealth in the poorest third will reduce the likelihood of physical abuse, this strategy may backfire for women in the wealthiest third (Graph 1). Further inspection of the interaction effect in Model III suggests that relative household wealth becomes irrelevant when women own between 40-70% of couple wealth; that is, the odds of physical abuse are about the same.

For Ghana, in Model III (Table 7) the coefficient for the interaction of women's share of wealth and the wealthiest group was positive although not significant in the case of physical violence. This finding is consistent with the findings of qualitative studies that show that women in the upper socioeconomic strata are subject to physical abuse (Amoakohene, 2004). The strongest interactive effect of the wealth variables, however, is for emotional violence (Model III, Table 9). As shown in Graph 3, as women's share of couple wealth increases, the odds of emotional abuse fall for women in the middle and upper wealth categories, but increase sharply for women in the poorest socioeconomic strata.

In the case of emotional abuse for Ecuador, the interaction effect from Model III (Table 8) indicate that the greater the woman's share of couple wealth the greater her likelihood of experiencing emotional abuse, except in the case of the wealthiest third of households where there appears to be no effect. The absence of an effect of share of couple wealth for women in the wealthiest third of households may, however, be somewhat misleading, as the baseline probability of emotional abuse is highest for this group.

In Ecuador, these results are all the more intriguing when placed in the context of the analyses on physical abuse. Together, they portray an unfortunate “catch-22 situation” where deviations from egalitarianism in the share of couple wealth are often met with a decrease in one form of abuse and an increase in the other. For instance, a woman in the lowest third of household wealth with zero share of the couple’s wealth is predicted to be at risk for physical abuse but somewhat buffered from emotional abuse. If she begins to accumulate a greater share of couple wealth, then the predicted likelihood of physical abuse decreases but the likelihood of emotional abuse increases. Likewise, if a woman in the lowest third of household wealth has no share of couple wealth and suddenly her household wealth increases without affecting her share, then our models would predict her likelihood of physical abuse to decrease but her likelihood of emotional abuse to increase.

Turning to the effect of the other variables of interest, the one variable that was a significant predictor of both physical and emotional abuse in both countries is the woman reporting that the couple has disagreements over finances. The only other variable that behaved almost as consistently in increasing the odds of abuse is the woman’s report of frequent domestic violence in the community. For Ecuador, the coefficient of this variable is significant for emotional abuse and Model III of physical abuse, being nearly significant otherwise. For Ghana, while not significant for physical abuse, the frequency of domestic violence in the community is a significant predictor of emotional abuse.

Two other factors predict emotional abuse across all the models in Ecuador: a woman earning more than her partner and residing in an urban area. In contrast, in Ghana, residing in an urban area is a deterrent to emotional abuse.

Other factors that serve as deterrents to spousal violence differ among physical and emotional violence and for the two countries. With respect to physical violence, in Ecuador across all the models, the couple being in a traditional relationship, with only the male being economically active, reduces the likelihood of abuse. In Ghana, by contrast, the likelihood of physical abuse decreases as the woman's age and years of schooling increases. Being in a polygamous marriage in Ghana is another consistent deterrent of emotional abuse.

In sum, in this two country study we have once again confirmed that the correlates of physical and emotional violence are often different within a country and between countries. The value of a comparative analysis using models with similar variables is that it sheds light on the fact that while spousal abuse is multifaceted and heavily dependent on context, it is characterized by a few regularities. The role of financial disagreements among the couple in predicting both physical and emotional spousal violence stands out and is worthy of further study. We have also demonstrated the relevance of utilizing the women's share of couple wealth as a proxy for women's bargaining power within the household and shown that its impact on spousal violence is contingent on a household's location in the wealth distribution.

REFERENCES

- Agarwal, B. (1994). *A field of one's own: Gender and land rights in South Asia*. Cambridge: Cambridge University Press.
- Amoakohene, M. (2004). Violence against women in Ghana: A look at women's perceptions and review of policy and social responses. *Social Science and Medicine* 59, 2373-2385.
- Bhattacharyya, M., Bedi, A. S., & Chhachhi, A. (2011). Marital violence and women's employment and property status: Evidence from north Indian villages. *World Development* 39 (9), 1676-1689.
- Buvinic, M., Morrison, A. & Shifter, M. eds. (1999). *Too close to home: Domestic violence in the Americas*. Washington, DC: Inter-American Development Bank.
- Castro, R. & Casique, I. (2009). Violencia de pareja contra las mujeres en México: una comparación entre encuestas recientes. *Notas de población* 87, 35-62.
- Castro Martin, T. (2002). Consensual unions in Latin America: Persistence of a dual nuptiality system. *Journal of Comparative Family Studies* 33(1), 35-55.
- Collier-Tenison, S. (2003). Economic factors in intimate partner conflict and violence. *Social Development Issues* 25(1/2), 247-260.
- Davies, J. B. (2008). An overview of personal wealth. In J.B. Davies (Ed.), *Personal wealth from a global perspective* (pp. 1-23). Oxford: Oxford University Press.
- Deere, C. D. & León, M. (2001). *Empowering women: Land and property rights in Latin America*. Pittsburgh, PA: Pittsburgh University Press.

- Deere, C. D. & Contreras Díaz, J. (2011). *La acumulación de activos. Una apuesta por la equidad*. Quito: FLACSO-Ecuador.
- Deere, C. D., Contreras, J. & Twyman, J. (2012). Patrimonial violence: A study of women's property rights in Ecuador. *Latin American Perspectives*, forthcoming.
- Doss, C., Deere, C. D., Oduro, A. D., Swaminathan, H....& Hillesland, M. (2011). *The gender asset and gender wealth gaps: Evidence from Ecuador, Ghana and Karnataka, India*. Bangalore: Indian Institute of Management Bangalore.
- Ecuador, República de (1995). *Ley contra la violencia a la mujer y la familia*. Law 108 of November 1995. <http://www.mingobierno.gov.ec/dinage>. Accessed June 6, 2010.
- Ecuador, República de. (2008). *Plan nacional para la erradicación de la violencia de género hacia la niñez, adolescencia y mujeres*. Law 1109 of May 2008. <http://sgdatabse.unwomen.org/uploads/Documents>. Accessed May 13, 2012.
- Ellsberg, M. C., Pena, R., Herrera, A., Liljestrand, J. & Winkvist, A. (1999). Wife abuse among women of childbearing age in Nicaragua. *American Journal of Public Health* 89(2), 241-44.
- Ezeh, A. C. & Gage, A. J. (2000). *Domestic violence in Uganda: Evidence from qualitative and quantitative data*. Working Paper No. 18. Nairobi: African Population and Health Research Center.
- Farmer, A. & Tienfenthaler, J. (1997). An economic analysis of domestic violence. *Review of Social Economy* 55, 337-358.
- Flake, D. F. & Forste, R. (2006). Fighting families: Domestic violence in five Latin American countries. *Journal of Family Violence* 21(1), 19-29.

Gadzekpo, A. (1999). Societal attitudes to violence against women and children. In Coker Appiah, D. & Cusack, K. (Eds.). *Breaking the silence and challenging the myths of violence against women and children in Ghana* (pp. 120-137). Accra: Gender Rights and Human Rights Centre.

Gage, A. J. (2005). Women's experience of intimate partner violence in Haiti. *Social Science & Medicine* 61, 343-364.

Garcia-Moreno, H., Jansen, AFN, Ellsberg, M., Heise, L, & Watts, C.H. (2006) Prevalence of intimate partner violence: Findings from the WHO multi-country study on women's health and domestic violence. *The Lancet* 368, 1260-69.

Gonzales de Olarte, E. & Gavilano Llosa, P. (1999). Does poverty cause domestic violence? Some answers from Lima. In Buvinic, M., Morrison, M., & Shifter, M. (Eds.), *Too Close to Home: Domestic Violence in the Americas* (pp. 35-49). Washington, DC: Inter-American Development Bank.

Grabe, S. (2010). Promoting gender equality: The role of ideology, power, and control in the link between land ownership and violence in Nicaragua. *Analyses of Social Issues and Public Policy* 10(1), 146-170.

Hindin, M. J. & Adair, L.S. (2002). Who's at risk? Factors associated with intimate partner violence in the Phillipines. *Social Science & Medicine* 55,1385-1399.

Hindin, M. J., Kishor, S. & Ansara, D.L. (2008). *Intimate partner violence among couples in 10 DHS countries: Predictors and health outcomes*. DHS Analytical Studies No. 18. Calverton, Maryland, USA: Macro International Inc.

Hoffman, K. L., Demo, D. H. & Edwards, J. N. (1994). Physical wife abuse in a non-Western society: An integrated theoretical approach. *Journal of Marriage and the Family* 56(1), 131-146.

Macmillan, R. & Gartner, R. (1999). When she brings home the bacon: Labor-force participation and the risk of spousal violence against women. *Journal of Marriage and the Family* 61(4), 947-958.

Oduro, A. D., Baah-Boateng, W. & Boakye-Yiadom, L. (2011). *Measuring the gender asset gap in Ghana*. Accra: Woeli Publishing House and University of Ghana.

OPS (Organización Panamericana de Salud) (1999). *Violencia contra las mujeres: La ruta critica en Ecuador*. Quito: OPS.

Panda, P. & Agarwal, B. (2005). Marital violence, human development and women's property status in India. *World Development* 33(5), 823-850.

Resko, S. M. (2010). *Intimate partner violence and women's economic insecurity*. El Paso: LFB Scholarly Publishing LLC.

Schuler, S. R., Hashemi, S. J., Riley, A. P. & Akhter, S. (1996). Credit programs, patriarchy and men's violence against women in rural Bangladesh. *Social Science & Medicine* 43(12), 1729-1742.

Tauchen, H. V., Witte, A.D. & Long, S. K. (1991). Domestic violence: A nonrandom affair. *International Economic Review* 32(2), 491-511.

UNDP (United Nations Development Programme) (2011). *Human development report 2011. Sustainability and equity: A better future for all*. NY: UNDP.

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

Yount, K. M. & Carrera, J. S. (2006). Domestic violence against married women in Cambodia. *Social Forces* 85(1), 355-387.

ENDNOTES

¹ This effect may be particularly strong in developing country contexts where homes are rarely financed through a mortgage, being instead built by their owners out of savings, often brick by brick.

² The 2004 ENDEMAIN survey in Ecuador is not technically a DHS survey, since it has different sponsors than the global DHS surveys and asks different questions, but will be referred to as "DHS" for the sake of brevity.

³ A shortcoming of the law was that it did not include economic or patrimonial violence (Deere, Contreras and Twyman, 2012).

⁴ The project was funded by the MDG3 Fund of the Dutch Foreign Ministry. The initial comparative results on assets ownership are presented in Doss et al (2011). The 2010 Ecuador Household Asset Survey (EAFF, Encuesta de Activos FLACSO-Florida) was carried out by the Latin American Faculty of Social Sciences (FLACSO) and the University of Florida. The Ghana Household Asset Survey (GHAS) was carried out by the University of Ghana, Legon.

⁵ During the field work, the number of households actually residing in each of the selected census tracks was updated, to be able to determine the appropriate sample expansion factors.

⁶ The exception is the Upper East Region where 20 households were sampled instead of 15.

⁷ It should be noted, however, that there is a precedent for the way we posed these questions. See the discussion in Flake and Forste (2006) regarding some of the DHS in Latin America.

⁸ Household residency was defined as not being away for more than six months during the previous year.

⁹ Most DHS surveys are reported for women aged 15 to 49. Our informed consent protocols only allowed us to interview women 18 years of age and older, thus we have reprocessed the DHS survey data to exclude the 15-17 age group. Also, in the subsequent analytical work we include women above the age of 49, thus the sample size will differ from that reported in Table 2.

¹⁰ The construction of the wealth categories includes all of the households in the full samples and not just the couple sub-samples employed in the present analysis. Thus these categories are nationally representative of Ecuador and Ghana, respectively. The distribution of couples among the categories thus depends on the distribution of households that are headed by a sole man or woman which are excluded from the present analysis.

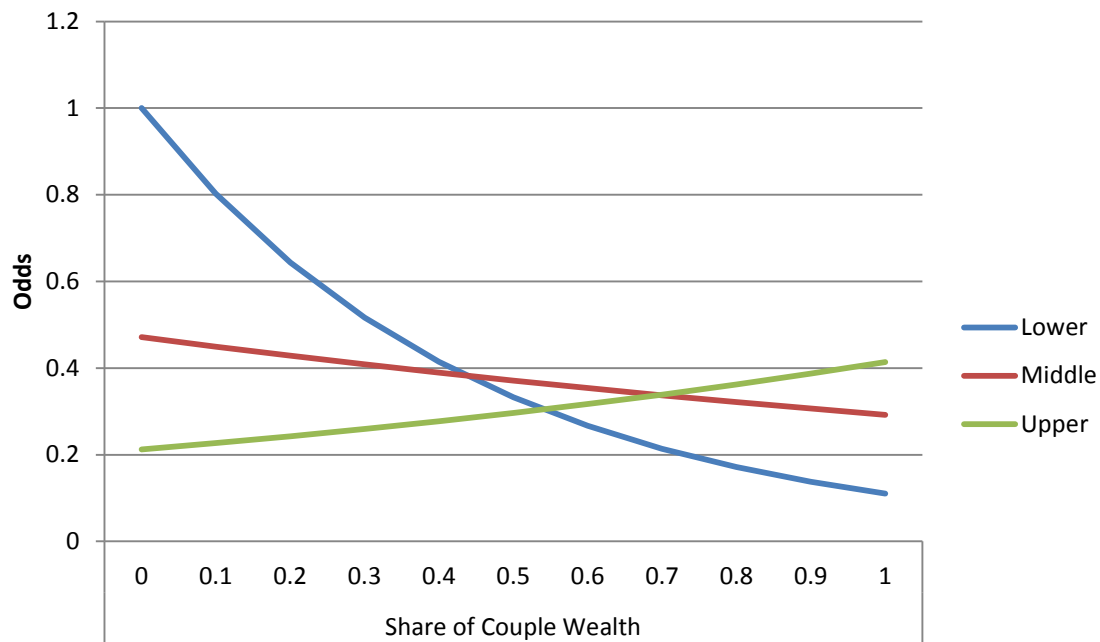
¹¹ We used the Mann-Whitney U as a test of the bivariate relationship between physical violence and perceptions of violence in the community. The Mann-Whitney U is conventionally used for tests between dichotomous and ordinal variables. In our logistic regression models we treat perceptions of community violence as a continuous variable.

¹² We also adjust this model to test for non-linear effects of woman's share of couple's wealth.

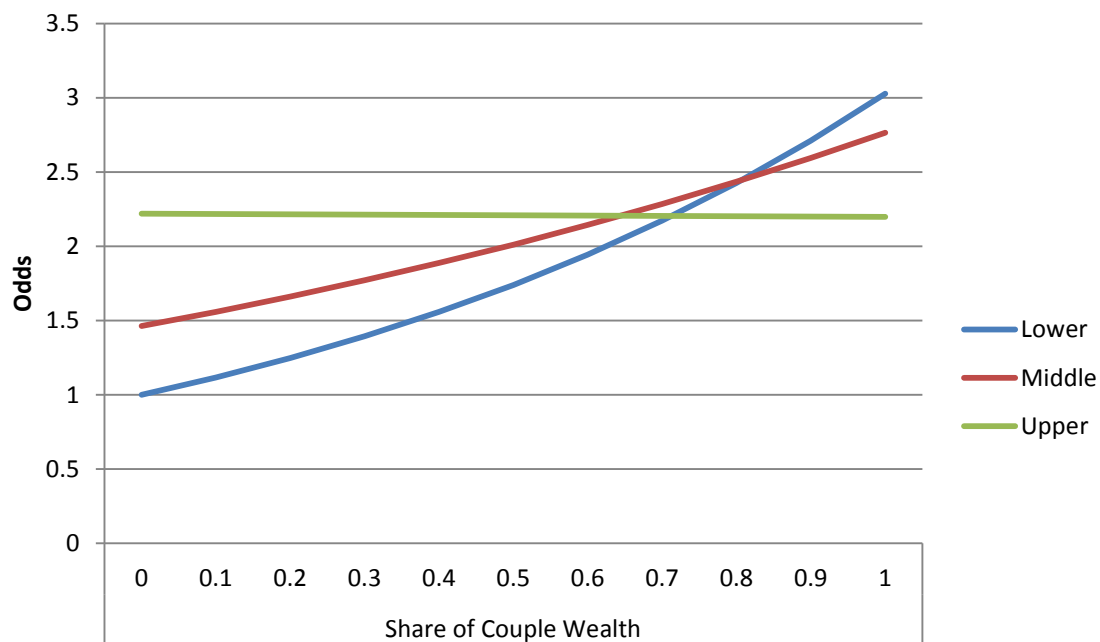
¹³ These regression models are un-weighted and do not take into account survey design effects.

¹⁴ In general, we would expect a low McFadden R-squared for our models since we do not include important variables consistently found to explain physical and emotional violence, such as whether the woman or her partner were abused as children or witnessed physical abuse of their mothers (Castro and Casique, 2009), variables for which we do not have data.

¹⁵ In these models for Ghana the four employment categories are collapsed into two. This is because there are no reports of spousal violence in two of the four categories.



Graph 1. Ecuador - Female Share of Couple Wealth Interaction with Wealth Categories on Odds of Physical Abuse



Graph 2. Ecuador - Female Share of Couple Wealth Interaction with Wealth Categories on Odds of Emotional Abuse

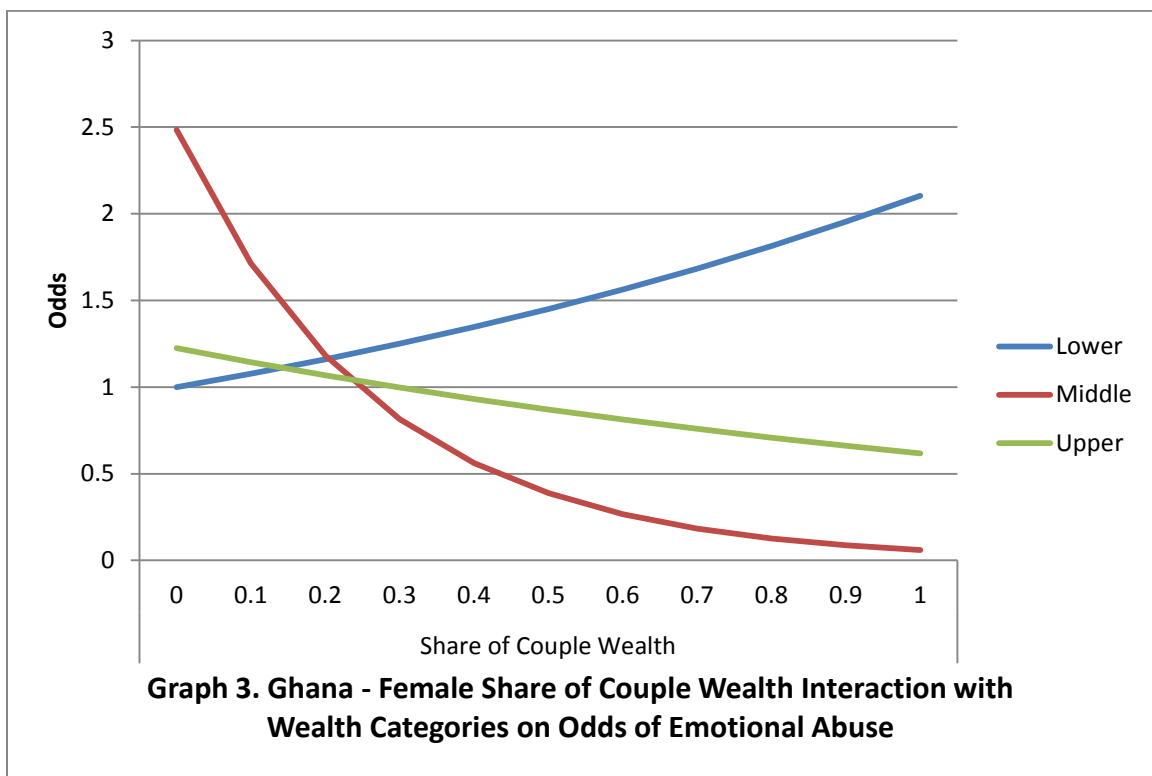


Table 1: Incidence of Spousal Violence during previous 12 months, Demographic and Health Surveys for Ecuador and Ghana (currently partnered women 18-49)

Type of Abuse*	Ecuador (2004)	Ghana (2008)
	n=6138	n=1039
Physical	10.1%	17.4%
Emotional	14.7%	30.3%
Sexual	3.4%	5.1%
Any form of abuse	17.4%	35.1%

Notes: *Categories are not mutually exclusive. Percentages are weighted by the sample expansion factors.

Sources: For Ecuador, derived from the data set for ENDEMAIN 2004 available at www.cepar.org.ec/endemain_04/nuev (accessed January 10, 2012).

For Ghana, derived from the data set for Ghana Demographic and Health Survey 2008 available on request at www.measuredhs.com/data/dataset/Ghana_Standard-DHS_2008 (accessed March 9, 2012).

Table 2: Incidence of Spousal Violence during previous 12 months, Ecuador and Ghana, 2010 (currently partnered women 18-49)

Type of Abuse*	Ecuador	Ghana
	n=1375	n=887
Physical	3.3%	2.1%
Emotional	17.7%	11.2%
Any form of abuse	18.1%	12.0%

Notes: *Categories are not mutually exclusive. The percentages are weighted by the sample expansion factors.

Sources: EAFF (2010); GHAS (2010)

Table 3: Descriptive Statistics for Currently Partnered Women

Variable (units)	Ecuador n=1938		Ghana n=887	
	Mean	Std. Dev	Mean	Std. Dev
Individual & couple characteristics				
Woman's age	41.27	14.13	39.25	12.19
Spousal age (absolute) difference	4.09	6.36	8.25	6.58
Woman's years of schooling	8.17	4.58	4.52	4.62
Spousal schooling (absolute) difference	0.38	3.5	3.1	3.58
Consensual union (percent)	35.4		13.4	
Polygamous union (percent)	na		11.2	
Married (monogamous) (percent)	64.6		75.4	
Employment (percent):				
Only man employed	35		8.5	
Only woman employed	3.4		4.7	
Neither employed	3.5		1.2	
Both employed	58.2		85.6	
Earnings (percent):				
He earns more	70.1		76.6	
She earns more	12		16.2	
Both earn about the same	18		3.9	
Woman does not know	na		3.3	
Financial disagreements (percent)	15.1		13.4	
Household characteristics				
Woman's children under 13	1.14	1.21	1.63	1.39
Household Wealth Category				
1 (Lower)	34.3		17.4	
2	32.6		35.9	
3 (Upper)	33.1		46.8	

Urban (percent)	65.8		30.9	
Community violence (scale 0 to3)	1.14		0.74	
Doesn't occur	54.1		53.1	
Rarely occurs	6.7		28.1	
Sometimes occurs	10.9		10.8	
Occurs frequently	28.4		8	
Asset variables				
Female only owns real estate	7.8		3	
Male only owns real estate	10.9		55.2	
Both own real estate	46.7		15.1	
None own real estate	34.6		26.5	
Female share of couple wealth (percent)	46.79	24.99	23.20	24.00

Table 4. Ecuador Bivariate Relationships with Model Variables

Variable	Physical Violence n=1938			Emotional Violence n=1866		
	Abused	Not abused	p-value	Abused	Not abused	p-value
Individual & couple characteristics						
Woman's age	41.14	41.28	0.218	39.11	41.60	0.006*
Spousal age difference	4.75	5.35	0.242	5.11	5.39	0.638
Woman's years of schooling	8.01	8.18	0.375	8.92	8.07	0.049*
Spousal schooling difference	2.24	2.41	0.307	2.59	2.38	0.963
Consensual union	37.5	35.4	0.711	37.1	35.1	0.552
Marriage (monogamous)	62.5	64.6		62.9	64.9	
Employment:						
Only man employed	23.6	35.4	0.097*	32.1	35.9	0.069*
Only woman employed	2.8	3.4		2.1	3.6	

Neither employed	1.4	3.5		1.7	3.8	
Both employed	72.2	57.6		64.2	56.6	
Earnings:						
He earns more	66.7	70.2	0.255	69.6	70.3	0.014*
She earns more	18.1	11.7		16.7	11.0	
Both earn about the same	15.3	18.1		13.8	18.7	
Financial disagreements	44.4	13.9	0.000*	40.4	10.0	0.000*
Household characteristics						
Woman's children under 13	1.25	1.13	0.641	1.17	1.13	0.598
Household Wealth Category:						
1 (Lower)	33.3	34.4	0.795	32.5	34.6	0.563
2	36.1	32.4		31.3	32.6	
3 (Upper)	30.6	33.2		36.3	32.8	
Urban	68.1	64.8	0.686	73.8	64.6	0.005*
Community violence:						
Doesn't occur	36.1	54.8	0.001*	39.2	57.1	0.000*
Rarely occurs	12.5	6.4		11.3	5.7	
Sometimes occurs	22.2	10.5		16.3	9.6	
Occurs frequently	29.2	28.3		33.3	27.6	
Asset variables						
Female only owns real estate	6.9	7.9	0.668	10.4	7.5	0.086*
Man only owns real estate	15.3	10.7		8.3	11.1	
Both own real estate	45.8	46.7		42.1	47.4	
None own real estate	31.9	34.7		39.2	34.0	
Female share of couple wealth	43.8	46.9	0.044*	50.5	46.4	0.264

* Significant at $\alpha < .10$

Table 5. Ghana Bivariate Relationships with Model Variables

Variable	Dependent Variable					
	Physical Violence n=887			Emotional Violence n=874		
	Abused	Not abused	p-value	Abused	Not abused	p-value
Individual & couple characteristics						
Woman's age	29.85	39.39	0.003*	37.09	39.61	0.048*
Spousal age difference	10.23	8.2	0.269	7.71	8.24	0.49
Woman's years of schooling	2.31	4.55	0.035*	4.67	4.54	0.784
Spousal schooling difference	3.76	3.09	0.501	3.44	3.06	0.363
Consensual union	30.8	13.2	0.136	21.5	12.3	0.006*
Marriage (monogamous)	53.9	75.7		76	75.5	
Polygamous union	15.4	11.1		2.5	12	
Employment:						
Only man employed	15.4	8.4	0.673	7.6	8.4	0.518
Only woman employed	0	4.8		2.5	5	
Neither employed	0	1.3		0	1.4	
Both employed	84.6	85.6		89.9	85.1	
Earnings:						
He earns more	84.6	76.4	0.784	74.7	76.6	0.414
She earns more	15.4	16.3		19	16	
Both earn about the same	0	4		1.3	4.3	
She does not know	0	3.3		5.1	3.1	
Financial disagreements	38.5	13	0.007*	48.1	9.6	0.000*
Household characteristics						
Woman's children under 13	1.62	1.63	0.965	1.68	1.63	0.735
Household Wealth Category:						
1 (Lower)	23.1	17.3	0.842	21.5	17.1	0.238
2	30.8	35.9		40.5	35.1	

3 (Upper)	46.2	46.8		38	47.8	
Urban	38.5	30.8	0.552	17.7	32.1	0.008*
Community violence:						
Doesn't occur	38.5	53.3	0.337	24.1	56.2	0.000*
Rarely occurs	23.1	28.2		46.8	26.3	
Sometimes occurs	23.1	10.6		8.9	10.8	
Occurs frequently	15.4	7.9		20.3	6.8	
Asset variables						
Female only owns real estate	7.7	2.9	0.667	5.1	2.8	0.008*
Man only owns real estate	53.8	55.3		70.9	53.7	
Both own real estate	7.7	15.3		7.6	16.1	
None own real estate	30.8	26.4		16.4	27.4	
Female share of couple wealth	16.6	23.3	0.308	18.3	23.8	0.045*

* Significant at $\alpha < .10$

Table 6. Ecuador Logistic Regression Results with Physical Violence

Variable	Baseline		Model I		Model II		Model III	
	β (S.E.)	Odds	β (S.E.)	Odds	β (S.E.)	Odds	β (S.E.)	Odds
Intercept	-3.798 *** (0.533)		-3.719 *** (0.565)		-3.055 *** (0.635)		-2.869 *** (0.639)	
Individual & couple characteristics								
Woman's age (average centered)	0.130 (0.013)	1.013	0.013 (0.013)	1.013	0.015 (0.013)	1.015	0.017 (0.013)	1.017
Spousal age difference	-0.021 (0.025)	0.979	-0.021 (0.025)	0.979	-0.022 (0.025)	0.978	-0.021 (0.025)	0.980
Woman's years of schooling	-0.022 (0.032)	0.978	-0.020 (0.033)	0.980	-0.018 (0.032)	0.982	-0.017 (0.032)	0.983
Spousal schooling difference	-0.038 (0.049)	0.962	-0.037 (0.049)	0.964	-0.037 (0.049)	0.964	-0.038 (0.049)	0.962
Consensual union	0.232 (0.275)	1.261	0.219 (0.280)	1.244	0.164 (0.281)	1.178	0.244 (0.277)	1.276
Marriage	ref	ref	ref	ref	ref	ref		ref
Employment:								
Only man employed	-0.552 * (0.306)	0.576	-0.566 * (0.306)	0.568	-0.577 * (0.306)	0.561	-0.579 * (0.308)	0.560
Only woman employed	-0.337 (0.781)	0.714	-0.325 (0.780)	0.723	-0.352 (0.784)	0.703	-0.322 (0.784)	0.724
Neither employed	-0.842 (1.056)	0.431	-0.863 (1.058)	0.422	-0.887 (1.060)	0.412	-0.995 (1.063)	0.370
Both employed	ref	ref	ref	ref	ref	ref		ref
Earnings:								
He earns more	0.223 (0.361)	1.250	0.208 (0.362)	1.231	0.171 (0.362)	1.187	0.220 (0.362)	1.246

She earns more	0.415 (0.440)	1.514	0.407 (0.441)	1.502	0.402 (0.441)	1.494	0.444 (0.441)	1.559
Both earn about the same	ref	ref	ref	ref	ref	ref	ref	ref
Financial disagreements	1.580 (0.258)	*** 4.855	1.611 (2.604)	*** 5.009	1.605 (0.259)	*** 4.977	1.608 (0.260)	*** 4.995
Household characteristics								
Woman's children under 13	0.108 (0.115)	1.114	0.098 (0.116)	1.102	0.098 (0.114)	1.103	0.127 (0.115)	1.135
Household Wealth Category:								
1 (Lower)	ref	ref	ref	ref	ref	ref	ref	ref
2	0.064 (0.306)	1.067	-0.064 (0.349)	0.938	-0.051 (0.312)	0.950	-0.752 (0.578)	0.472
3 (Upper)	-0.181 (0.352)	0.835	-0.318 (0.416)	0.727	-0.270 (0.354)	0.763	-1.549 (0.715)	** 0.213
Urban	0.147 (0.284)	1.158	0.174 (0.292)	1.190	0.131 (0.286)	1.140	0.173 (0.286)	1.188
Community violence	0.149 (0.093)	† 1.161	0.148 (0.093)	† 1.160	0.150 (0.093)	† 1.162	0.154 (0.093)	* 1.167
Asset variables								
None own asset	na	na	-0.126 (0.370)	0.881	na	na	na	na
Male only owns asset	na	na	0.472 (0.381)	1.604	na	na	na	na
Female only owns asset	na	na	-0.301 (0.513)	0.740	na	na	na	na
Female share of couple wealth	na	na	na	na	-2.640 (1.397)	* 0.071	-2.202 (0.911)	** 0.111
Female share of couple wealth ²	na	na	na	na	2.080 (1.413)	† 8.002	na	na
Female share of couple wealth x wealth cat. 2	na	na	na	na	na	na	1.723 †	5.599

(interaction)					(1.172)
Female share of couple wealth x wealth cat. 3 (interaction)	na	na	na	na	2.868 ** (1.344) 17.598
Number of cases (N)	1938	1938	1938	1938	
Likelihood ratio Chi-Square (df)	50.290 (16)***	52.768 (19)***	54.484 (18)***	57.209 (19)***	
McFadden Pseudo R-Square	0.082	0.086	0.089	0.093	

†Approaching significance, $\alpha < .15$; * Significant at $\alpha < .10$; ** Significant at $\alpha < .05$; *** Significant at $\alpha < .01$

Table 7. Ghana Logistic Regression Results with Physical Violence

Variable	Baseline		Model I		Model II		Model III	
	β (S.E.)	Odds	β (S.E.)	Odds	β (S.E.)	Odds	β (S.E.)	Odds
Intercept	-5.377 *** (1.309)		-5.838 *** (1.684)		-5.355 *** (1.390)		-4.353 *** (1.511)	
Individual & couple characteristics								
Woman's age (average centered)	-0.099 *** (0.038)	0.905	-0.102 *** (0.038)	0.902	-0.098 ** (1.545)	0.906	-0.102 *** (0.039)	0.902
Spousal age difference	0.053 (0.042)	1.054	0.056 (0.042)	1.058	0.053 (0.042)	1.054	0.052 (0.042)	1.053
Woman's years of schooling	-0.236 ** (0.102)	0.789	-0.253 ** (0.106)	0.776	-0.235 * (0.104)	0.79	-0.229 * (0.105)	0.796
Spousal schooling difference	-0.005 (0.082)	0.994	-0.021 (0.082)	0.987	-0.004 (0.082)	0.995	-0.010 (0.084)	0.989
Consensual union	1.147 (0.807)	3.15	1.138 (0.822)	3.123	1.114 (0.810)	3.139	0.949 (0.852)	2.583
Marriage (monogomous)	ref	ref	ref	ref	ref	ref		ref
Polygamous union	0.353 (0.936)	1.423	0.358 (0.947)	1.431	0.350 (0.938)	1.419	0.470 (0.951)	1.6

Employment:								
Only man employed	-0.564 (0.965)	0.568	-0.695 (1.016)	0.498	-0.566 (0.965)	0.567	-0.482 (0.968)	0.617
Only woman employed	ref	ref	ref	ref	ref	ref	ref	ref
Neither employed	ref	ref	ref	ref	ref	ref	ref	ref
Both employed	ref	ref	ref	ref	ref	ref	ref	ref
Earnings:								
He earns more	-0.092 (0.859)	0.916	-0.105 (0.872)	0.899	-0.095 (0.862)	0.908	-0.148 (0.873)	0.862
She earns more	ref	ref	ref	ref	ref	ref	ref	ref
Both earn about the same	ref	ref	ref	ref	ref	ref	ref	ref
Financial disagreements	1.371 (0.682)	** 3.942	1.467 (0.695)	** 4.337	1.369 (0.683)	** 3.935	1.141 (0.710)	3.132
Household characteristics								
Woman's children under 13	-0.206 (0.258)	0.813	-0.213 (0.263)	0.807	-0.207 (0.258)	0.812	-0.209 (0.265)	0.81
Household Wealth Category:								
1 (Lower)	ref	ref	ref	ref	ref	ref	ref	ref
2	0.252 (0.795)	1.287	0.199 (0.850)	1.221	0.250 (0.796)	1.284	-0.813 (1.078)	0.443
3 (Upper)	0.332 (0.899)	1.394	0.441 (0.993)	1.555	0.323 (0.920)	1.382	-0.904 (1.157)	0.404
Urban	0.822 (0.699)	2.276	0.777 (0.722)	2.176	0.824 (0.700)	2.28	0.825 (0.699)	2.282
Community violence	0.273 (0.275)	1.315	0.288 (0.286)	1.334	0.273 (0.276)	1.314	0.325 (0.284)	1.384
Asset variables								
None own asset	na	na	0.426 (1.276)	1.531	na	na	na	na

Male only owns asset	na	na	0.403 (1.151)	1.497	na	na	na	
Female only owns asset	na	na	2.044 (1.609)	7.723	na	na	na	
Female share of couple wealth	na	na	na	na	-0.072 (1.545)	0.929	-7.32 (6.794)	0.0006
Female share of couple wealth ²	na	na	na	na	na	na	na	
Female share of couple wealth x wealth cat. 2 (interaction)	na	na	na	na	na	na	7.906 (7.094)	2715.08
Female share of couple wealth x wealth cat. 3 (interaction)	na	na	na	na	na	na	9.017 (7.135)	8247.94
Number of cases (N)	887		887		887		887	
Likelihood ratio Chi-Square (df)	25.99 (14)**		27.58 (17)**		25.90 (15)**		28.72 (17)**	
McFadden Pseudo R-Square	0.192		0.200		0.190		0.210	

†Approaching significance, $\alpha < .15$; * Significant at $\alpha < .10$; ** Significant at $\alpha < .05$; *** Significant at $\alpha < .01$

Table 8. Ecuador Logistic Regression Results with Emotional Violence

Variable	Baseline		Model I		Model II		Model III	
	β (S.E.)	Odds	β (S.E.)	Odds	β (S.E.)	Odds	β (S.E.)	Odds
Intercept	-3.078 (0.331)	***	-3.286 (0.357)	***	-3.078 (0.409)	***	-3.625 (0.431)	***
Individual & couple characteristics								
Woman's age (average centered)	-0.007 (0.008)	0.993	-0.005 (0.008)	0.995	-0.008 (0.008)	0.992	-0.009 (0.008)	0.991
Spousal age difference	-0.007 (0.014)	0.993	-0.008 (0.014)	0.993	-0.007 (0.014)	0.993	-0.007 (0.014)	0.993
Woman's years of schooling	0.001 (0.019)	1.000	-0.004 (0.019)	0.996	0.000 (0.019)	1.000	-0.002 (0.019)	0.998

Spousal schooling difference	0.006 (0.027)	1.006	0.007 (0.028)	1.007	0.008 (0.028)	1.008	0.007 (0.028)	1.007
Consensual union	0.207 (0.167)	1.230	1.880 (0.170)	1.207	0.130 (0.171)	1.139	0.176 (0.168)	1.193
Marriage		ref		ref		ref		ref
Employment:								
Only man employed	-0.193 (0.170)	0.825	-0.189 (0.170)	0.828	-0.189 (0.170)	0.828	-0.177 (0.170)	0.838
Only woman employed	-0.614 (0.514)	0.541	-0.631 (0.516)	0.532	-0.692 (0.521)	0.501	-0.637 (0.516)	0.529
Neither employed	-0.401 (0.553)	0.670	-0.400 (0.554)	0.670	-0.372 (0.554)	0.689	-0.346 (0.553)	0.707
Both employed	ref	ref	ref	ref	ref	ref		ref
Earnings:								
He earns more	0.323 † (0.224)	1.381	0.335 † (0.225)	1.398	0.324 † (0.224)	1.383	0.325 † (0.224)	1.384
She earns more	0.701 ** (0.275)	2.015	0.710 *** (0.276)	2.033	0.708 *** (0.275)	2.031	0.694 ** (0.275)	2.003
Both earn about the same	ref	ref	ref	ref		ref		ref
Financial disagreements	1.703 *** (0.161)	5.493	1.700 *** (0.162)	5.466	1.704 *** (0.162)	5.494	1.700 *** (0.162)	5.473
Household characteristics								
Woman's children under 13	-0.044 (0.074)	0.957	-0.031 (0.074)	0.970	-0.042 (0.074)	0.959	-0.046 (0.074)	0.955
Household Wealth Category:								
1 (Lower)	ref	ref	ref	ref		ref		ref
2	0.094 (0.189)	1.099	0.232 (0.211)	1.261	0.086 (0.191)	1.090	0.381 (0.417)	1.463
3 (Upper)	0.194 (0.206)	1.214	0.416 * (0.247)	1.516	0.222 (0.208)	1.249	0.797 * (0.433)	2.220

Urban	0.312 *	1.367	0.249	1.283	0.278 †	1.321	2.920 *	1.339
	(0.173)		(0.177)		(0.173)		(0.173)	
Community violence	0.175 ***	1.191	0.175 ***	1.191	0.170 ***	1.186	0.172 ***	1.187
	(0.054)		(0.054)		(0.054)		(0.055)	
Asset variables								
None own asset	na	na	0.346 †	1.413		na		na
			(0.218)					
Male only owns asset	na	na	-0.101	0.904		na		na
			(0.277)					
Female only owns asset	na	na	0.354	1.424		na		na
			(0.270)					
Female share of couple wealth	na	na		na	-0.710	0.492	1.108 **	3.028
					(0.909)		(0.525)	
Female share of couple wealth ²	na	na		na	1.293 †	3.644		na
					(0.854)			
Female share of couple wealth x wealth cat. 2 (interaction)	na	na		na		na	-0.472 **	0.624
							(0.705)	
Female share of couple wealth x wealth cat. 3 (interaction)	na	na		na		na	-1.118 †	0.327
							(0.758)	
Number of cases (N)	1866		1866		1866		874	
Likelihood ratio Chi-Square (df)	152.514 (16)***		156.568 (19)***		158.874 (18)***		158.814 (19)***	
McFadden Pseudo R-Square	0.106		0.109		0.111		0.210	

† Approaching significance, $\alpha < .15$; * Significant at $\alpha < .10$; ** Significant at $\alpha < .05$; *** Significant at $\alpha < .01$

Table 9. Ghana Logistic Regression Results with Emotional Violence

Variable	Baseline		Model I		Model II		Model III	
	β (S.E.)	Odds	β (S.E.)	Odds	β (S.E.)	Odds	β (S.E.)	Odds
Intercept	-2.973 (0.690)	***	-3.365 (0.839)	***	-2.523 (0.725)	***	-3.189 (0.836)	***
Individual & couple characteristics								
Woman's age (average centered)	-0.005 (0.013)	0.994	-0.006 (0.013)	0.993	-0.002 (0.013)	0.997	-0.004 (0.013)	0.995
Spousal age difference	0.004 (0.023)	1.004	-0.001 (0.024)	0.998	-0.002 (0.023)	1.002	0.007 (0.023)	1.007
Woman's years of schooling	-0.008 (0.033)	0.991	0.003 (0.034)	1.003	-0.002 (0.032)	1.002	0.002 (0.033)	1.002
Spousal schooling difference	0.020 (0.038)	1.02	0.023 (0.039)	1.023	0.027 (0.038)	1.028	0.029 (0.039)	1.03
Consensual union	0.049 (0.359)	1.051	0.133 (0.363)	1.142	0.038 (0.364)	1.039	0.083 (0.363)	1.086
Marriage (monogamous)	ref	ref	ref	ref	ref	ref	ref	ref
Polygamous union	-1.703 (0.769)	** 0.182	-1.673 (0.769)	** 0.187	-1.749 (0.769)	** 0.173	-1.809 (0.771)	** 0.163
Employment:								
Only man employed	-0.184 (0.513)	0.831	-0.037 (0.528)	0.962	-0.243 (0.511)	0.783	-0.241 (0.515)	0.785
Only woman employed	-0.601 (0.844)	0.548	-0.444 (0.831)	0.641	-0.592 (0.828)	0.553	-0.623 (0.837)	0.536
Neither employed	ref	ref	ref	ref	ref	ref	ref	ref
Both employed	ref	ref	ref	ref	ref	ref	ref	ref
Earnings:								
He earns more	0.165 (0.547)	1.18	0.047 (0.546)	1.048	0.079 (0.550)	1.082	0.109 (0.553)	1.115

(interaction)				(1.604)
Number of cases (N)	874	874	874	874
Likelihood ratio Chi-Square (df)	101.61(16)***	117.13(19)***	106.04(17)***	112.79 (19)***
McFadden Pseudo R-Square	0.191	0.220	0.199	0.212

†Approaching significance, $\alpha < .15$; * Significant at $\alpha < .10$; ** Significant at $\alpha < .05$; *** Significant at $\alpha < .01$