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INFORMATION GAPS AND DE JURE LEGAL RIGHTS:

Evidence from Pakistan[*]

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1 Introduction

Governments pass legal reforms to achieve objectives from promoting economic growth (e.g. protections for property rights) to increasing equality (e.g. desegregation) to protecting vulnerable individuals (e.g. domestic violence laws). Yet there is often a wide gap between de jure legal rights and de facto practice. This could occur for several reasons. Implementers (such as judges, police, or local administrators) may deliberately ignore the law because they have different preferences or they may wish to avoid exerting effort, and expect that the probability of being punished is low. Alternatively, they may not have the power to implement changes if citizens seek ways to evade official processes (e.g. resolving disputes extrajudicially). Finally, it is possible that implementers simply do not know about the law on the books. This may be a particular problem in settings with large numbers of officials involved in implementation, where officials have low levels of education, where laws have changed frequently or recently, or where the government has limited resources to disseminate information on legal reforms to implementers. Thus there may be a discrepancy between de jure and de facto legal rights simply because of a gap in information.

In this paper, we study a large scale effort to improve the information environment in a key area of legal rights: women's rights in marriage. The degree of freedom that women enjoy over key life choices such as whether, when and whom to marry and divorce are intrinsically valuable human rights with potentially important economic and welfare consequences [Stevenson and Wolfers, 2006, Field and Ambrus, 2008, Buchmann et al., 2018, Hahn et al., 2018, Doepke et al., 2011]. Over the last half century,

there has been substantial progress in the law, with some estimates suggesting half of the discriminatory laws worldwide were removed [Hallward-Driemeier et al., 2013]. Despite this, in many contexts, women's de jure rights over marriage and divorce are substantially more progressive than the de facto practice of the law. There is very little research on what determines women's *de facto* legal rights.

We study the effect of a massive effort to improve the knowledge of tens of thousands of local implementing officials on legal rights and procedures related to women's legal rights in marriage. In 2015, the province of Punjab, Pakistan, passed a set of legal reforms for women's rights in marriage, including imposing penalties on families as well as marriage registrars for violations of women's rights in marriage, including rules on the completion of the marriage contract, a binding legal contract at the time of marriage that governs divorce and financial rights in marriage.[1]

Legally the informed consent of the bride and groom to these terms is the sole requirement for the marriage contract; however, de facto, in the majority of cases, brides (and to a lesser extent grooms) are not even informed of the terms of the agreements they sign. Instead, the terms of the contract are often decided by the spouses' parents, with strong influence and advice from the religious-legal official who conducts and registers the marriage, the marriage registrar. Yet until 2017 there was no education or training requirement to become a marriage registrar; indeed, the government did not have a list of the licensed registrars in the province or even know the exact number who held licenses (issued on paper by local level offices). Most of the approximately 60,000 registrars in the province had less than a 10th grade education; and the majority were unaware of legal protections for women's rights in marriage that directly related to their responsibilities in completing and registering marriage contracts, including the new reforms. Thus in 2017 two government agencies, the Punjab Commission on the Status of Women and the Local Government Department, initiated the first ever mandatory training of marriage registrars to inform registrars of these key provisions and the punishments for non-compliance. We collaborated with the government to conduct a partially randomized evaluation of this training program.

We find that the training substantially increased registrars' knowledge of key areas of the law: On average, registrars in the control group scored 63% on a test of knowledge on family law related to women's rights. Rollout of the training in a Union Council increased registrars' score on the knowledge test on the phone survey substantially; registrars from trained UCs have a 17% higher score on the knowledge test. The training also increased participants' beliefs that punishments would be enforced on registrars who did not comply with the law.

Treatment group registrars were significantly more likely to state that they intended to advise for women's rights during the marriage contracting process, and in particular to ensure that the bride understands the terms of the agreement she is signing. Using variation in marriage timing and the (non-randomized) rollout of the training across the province as a whole, we find evidence that for educated

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[1]Khan and Khan (2019) provide an in depth review of the legal and procedural issues in the nikkah namah in Pakistan.

brides, the training increased the probability that the bride is informed of the terms of the marriage contract. There is no similar pattern when using an earlier "placebo" training date.

We digitized data from 14,000 marriage contracts and combine this with randomized variation in the training to test for changes in contractual outcomes. We find that training reduced legal violations in the contract. The proportion of contracts in which the option to give the bride the right to unilateral divorce has been illegally crossed out (effectively removing the choice from the family or couple) decreases by 21 percentage points from 42% (almost a 50% decrease). There is a more modest decrease in the proportion of contracts missing the bride's or groom's ID card copy, used to verify marriage age. However, there is no change in contractual terms including selection of the divorce right or financial terms. To isolate the "supply side" of registrar advice from families' demand, we use "mystery shopper" calls to registrars to test how registrars advise families on the contractual terms selected within the contract. We find that the training does not change the information or advice that registrars give callers on specific contractual terms. Conversely, the advice changes in response to randomized variation in the identity of the caller (from the bride's or groom's family), suggesting that registrars' advice is responsive to family demand for terms favoring the bride or groom.

Overall, the training increased registrar knowledge of basic provisions of the law, dramatically reduced procedural violations, and helped to ensure women are aware of the terms of the contract they are signing. These are important outcomes in their own right. They are also necessary conditions for a shift in contractual terms selected by the family that favor or limit the bride's rights; however, the results suggest that for these to shift, complementary interventions would be needed to change women's or families' demand for these provisions.

Our study contributes to a small but growing literature on the determinants of *de facto* legal rights. Several studies show that interventions such as legal assistance and dispute resolution help improve outcomes for beneficiaries [Mueller et al., 2015, Seron et al., 2001, Sandefur and Siddiqi, 2015, Greiner et al., 2013, Blattman et al., 2014]. However, there is more limited research on efforts to improve access to *de facto* legal rights through the low-hanging fruit of simply resolving misinformation among implementers. Our study helps to fill this gap.

The remainder of the paper proceeds as follows. Section 2 describes the context and intervention in more detail. Section 3 explains the design: the randomization, data sources, and estimation. Section 5 presents results, and Section 6 concludes.

2 Context and intervention

As in much of the Muslim world, under Muslim family law in Pakistan, couples sign a binding legal contract at the time of marriage – the Nikkah Namah – that includes a number of specific terms that the

spouses are to agree upon prior to formalizing the union, including the right of the bride to unilaterally initiate divorce (delegated right of divorce or talaaq-e-takhweez) and an amount of money which she keeps in the event of divorce (meher). The informed consent of the bride and groom to a marriage and these specific terms is legally required. However, de facto, the terms of the contract are often decided not by the spouses but by their parents, with potentially strong influence from the authority who conducts and registers the marriage (nikkah khawan / nikkah registrar).

Role of the family: The parents of the bride and groom typically arrange the marriage, decide its timing, and determine the terms of the written marriage contract, including the amount of the mehr payment due to the bride in case of divorce initiated by the husband (Ambrus, Field and Torero 2010), and whether the bride has the right of unilateral divorce. According to recent data collected by the research team, in the majority of our sample areas, women are not even informed of the terms in their marriage contract when they sign, let alone involved in the decisions about those terms (Figure 1). Thus a woman's family may arrange and contract her marriage in a way that provides her fewer rights than she could be entitled by law and would herself value over other possible marriage outcomes families negotiate in this process. For instance, parents of daughters may trade off divorce rights in exchange for a groom with higher social status or as part of an informal contract with her in-laws for her protection (Jacoby and Mansuri 2007). They may also be imperfectly altruistic towards daughters (cf. Ashraf et al. 2018) and bargain away their rights to comply with social norms or for their own financial incentives. They may also be unaware of the law or its enforcement, particularly during periods of progressive legal change. For example, there is a common public misunderstanding in Pakistan that giving the bride the right to unilateral divorce to the bride removes it from the groom.

Role of the marriage authority (registrar): The religious leader who solemnizes a marriage typically also helps families determine the terms of the contract and serves as the government marriage registrar, who registers all paperwork related to the marriage with the local government office. Marriage registrars are not full-time government employees but must be licensed by the local government and receive a small fee for each marriage they register. In this proposal, we refer to these individuals (imams/registrars) as marriage registrars. They have a substantial influence on key decisions for the marriage, including:

(a) They may refuse to conduct and register a marriage if they feel it should not take place (in data collected by the authors, 48% of registrars in Punjab province say they have done so). For example, they may refuse to conduct a marriage of a couple who have not received approval from their parents, although legally this is not a requirement. They may refuse to conduct a marriage across sects if they oppose this on religious grounds. Conversely, they are legally expected to play a role in refusing to conduct marriages against the law, including checking identity documents to ensure that girls are not married under the legal age of 16, ensuring that the first wife has given official consent in case of a polygamous marriage, or refusing to carry out a marriage without the bride's consent.

(b) They also play a key role in setting social norms for optional rights such as unilateral divorce; over 80% of registrars say that they advise families on these provisions (Figure 2). Many authorities help families fill out the contract; over half the registrars in a survey in one district said that for the last marriage they conducted, the terms were not filled in before the ceremony began. In many cases families have not decided on their positions in advance or do not wish to negotiate openly about them; for example, families often decline to discuss unilateral divorce, feeling it could spoil the delicate relationship with new in-laws. In such cases, the registrar may guide the families or use his judgment to complete these sections of the form himself. In pilot marriage contract data collected in Lahore district, registrar fixed effects explain 15% of the variation in the provision of the unilateral divorce right to the bride, while fixed effects at the level of the Union Council (a small geographic area in which 8-10 registrars practice) only explain 2% of this variation.

(c) In many cases, the registrar crosses out provisions of the marriage contract with which he disagrees, and not offer the option to the families. In Pakistan, this is particularly frequent in the case of the provision for the bride's right to unilateral divorce, which many authorities oppose on religious grounds. This is illegal yet prevalent: in data from 14,000 marriage contracts we collected, 28% had this provision crossed out. Despite the importance of these registrars, until 2017 there was no minimum educational requirement nor required training to become a marriage registrar in Pakistan. More than 80% of registrars have an average education level of Matriculation (10th grade) or below (Figure 3), and 90% had never attended any formal training on their responsibilities. They were unaware of laws that directly pertain to their responsibilities: the average registrar got more than half the questions wrong on a pre-training knowledge test (Figure 4).

In 2015, the province of Punjab passed a set of legal reforms including increased penalties for child and forced marriage, and imposing penalties on families as well as marriage registrars for violations of women's rights. However, for such legal reforms to be effective in delivering marriage rights to women in practice, the parties to this negotiation and contracting process must be informed about the law. In light of this, in 2017 PCSW implemented mandatory training sessions for registrars throughout the province, and approached the research team for assistance with the evaluation of the training program.

The training was implemented by the Punjab Commission on the Status of Women in collaboration with the Punjab Local Government Department, which is responsible for coordinating the work of approximately 2,000 Union Council government offices in Punjab; these offices are the seat of local elected government and issue the licenses to marriage registrars. Their offices also house the official marriage contracts ("nikkah namahs") submitted by registrars.

The Commission on the Status of Women developed a detailed training manual which focused on areas of family law relevant to the marriage registrar's role, including the marriage process and its requirements, an emphasis on legally correct completion of the marriage contract, and punishments

applicable to registrars who do not comply with the law.

The Commission recruited male and female trainers from two main groups: lawyers practicing family law, and non-government organizations working on women's issues. Trainers worked in pairs to deliver the trainings, each of which lasted one day and was held in the office of the tehsil.

As an official government activity, the training was designed to avoid normative content (such as religious or social arguments on women's rights) and focus instead on emphasizing compliance with the laws on the books that are designed to protect women's rights. However, individual trainers may have varied their delivery; a survey of trainers indicated that some trainers planned to incorporate religious arguments in their approach. Despite the emphasis on the law on the books, some of the content was considered controversial because some areas of the law are more progressive for women's rights than commonly held cultural beliefs or religious interpretations. In particular, these included the minimum age of marriage for women (16 in Punjab); and the option of giving the bride the right to unilaterally initiate divorce ("delegated divorce" or talaq-e-takhweez). Qualitative reports from the implementers and trainers demonstrated a huge range of responses by registrars, from defiance and

The training was rolled out by tehsil across the province over the course of 2017-2018. Section **??** discusses the rollout in more detail. The original intent of the government was to cover every tehsil in the province; however, after changes in government composition the final phase of the training program has not yet been funded for continuation, so to date approximately 1/3 of the province has not been covered in the training.

3   Design

3.1   Randomization

Randomization was carried out at the Union Council level (there are approximately 3,500 Union Councils in the province) within each tehsil (county) as training began in that area. The rollout allows us to use three identification strategies:

- Sample 1: In Lahore district, we worked with the government to randomly select 80 of the 270 Union Councils to be left out of the training which took place in that district in December 2017. To date, training has not been conducted in these 80 Union Councils. In this district, 50% of registrars in treatment UCs and 10% in control UCs attended the training (p < 0.001). We use this randomization to test for effects on long term outcomes including marriage contracts. To avoid inducing Hawthorne effects in the control group (such as respondents learning about laws through our survey questions), we avoided conducting short term surveys in this sample. Table A1, Column 1, shows that the training attendance records show that 10% of registrars in control UCs attended training, while 55% of registrars in treatment UCs attended.

- Sample 2: Within selected tehsils (counties), we worked with PCSW and Local Government to randomize Union Councils into sessions so that the order of trainings is random within a tehsil. We use this randomized rollout in conjunction with a telephone survey conducted to test for effects on immediate outcomes after training: knowledge and stated intentions. 57% of registrars in these districts, and 80% of those who ever attended, attended on the exact date assigned; Table A1 Column 2 shows that 32% of registrars who were assigned to be trained *after* the survey date (the short term control group) confirmed they had attended on the survey, while 83% of those who were assigned to be trained before the survey date confirmed they had attended. Because training was completed in each area over a course of a few weeks, this randomization does not allow us to examine long-term outcomes.

- Sample 3: We also use the non-experimental rollout of the trainings across the province to examine longer-term effects in province-wide data.

3.2 Data

3.2.1 Registrar listing

Prior to this project, there was no list of marriage registrars in Punjab; even at the local government level, a local official could report on who holds a marriage license locally only based on memory or review of marriage contracts on file. To better understand levels of and variation in human capital of these authorities, our research team worked with the government partner, the Punjab Commission on the Status of Women (PCSW), and the Local Government Department to collect and analyze a comprehensive dataset. The first step was to compile the first province-wide database of approximately 60,000 registrars by contacting each of these 2,000 local government offices. This database includes education and contact information and was used to facilitate training, randomization, and survey sampling. During the training rollout, we collected more comprehensive dataset on the registrars' backgrounds, formal training, practices, knowledge and perceptions (over 20,000 in the 20 districts rolled out to date).

3.2.2 Trainee questionnaires

All training participants were surveyed pre and post training with instruments that have been developed by the research team and PCSW in collaboration. These instruments assess:

1. Knowledge of the laws and consequences of breaking the law, pre and post training

2. Respondent characteristics including age, education, religious role in community, and proxies for social standing

3. His own attitudes and behavior (decisions about marriage and education of his daughters and sons).

4. Respondent's perceptions of community norms

5. ID card and registrar license numbers will also be collected to facilitate matching with administrative data.

These instruments were conducted and collected by the government trainers, and are only collected for training participants.

3.2.3 Telephone survey and knowledge test

The research team conducted a telephone survey of a random sample of registrars in Sample 2. This allows us to gather data on marriage registrars who did not participate in the training, and to test for impacts on knowledge, perceptions and self-reported practices using the rollout of the training, as well as to rule out potential interference by trainers in the instruments to ensure participants score well on knowledge tests. The variables collected in the telephone survey are similar to those collected in the pre / post instruments.

3.2.4 Official marriage contract documents

In Sample 1, we collected data on the marriages that each registrar carried out over a two-year period, covering before and after training. Field assistants visited each Union Council office and made scans of each marriage contract registered for a period of two years. The administrative data collected include:

1. Identity of the registrar who carried out the marriage (for merging data with the pre / post training data)

2. Names and ID card numbers of bride and groom (allowing us to follow up for future household surveys)

3. Ages of bride and groom

4. Whether any section has been crossed out inappropriately by the registrar (e.g. to eliminate the option of the woman to unilateral divorce, rather than selecting a yes or no answer in this provision)

5. Whether the right of delegated divorce (unilateral divorce by wife) has been selected

6. Optional conditions included in favor of the bride or groom, such as placing additional conditions on divorce rights; securing or denying the bride's right to work or study after marriage.

7. Amount of haq-meher (Islamic bride price traditionally transferred upon divorce)

Marriage conditions are fixed in the contract at the time of the marriage, and it is extremely unusual to amend these; copies of each form are retained by the bride (or her family) and groom (or his family) in addition to the copy kept in the government office. We also noted any evidence of retroactive editing of forms (note that if registrars were to edit forms after training based on concerns about punishment for violations, this would attenuate the estimated effect of training).

3.2.5 Mystery shoppers

We conducted "mystery shopper" calls in which callers request advice on the contract. We randomize whether the caller poses as a member of the family of the bride or the groom.

Specifically, we used two scripts (example text shown below for the bride's side caller):

Scenario 1: Unilateral right of divorce ("delegated divorce"): "My daughter is getting married next months and we have been discussing the terms of the marriage contract with the groom's family. Someone has suggested to us that we should ensure that our daughter is given the right to divorce her husband of her own will. We haven't heard about this before. What is it? and should we ask for it?"

Scenario 2: Right to work after marriage: "My daughter is getting married next month and she has just finished medicine and would like to practice as a doctor after that. The boy's family has indirectly mentioned on many occasions that they don't like women working outside home. My daughter is very upset about this since we do not want her education and time to go to waste. Is there anything we can do to help her? What do you advise?...I've heard that sometimes the groom's family put a condition in the contract that the bride cannot work. Is it is allowed?...Is there something we can add in the contract to ensure that she can work after marriage?" For this script, the legally correct response is that the families can choose to affirm the bride's right to work in the contract, but *cannot* choose to restrict her right to work.

We construct the following outcome variables from these calls - whether the registrar:

1. Answered the caller's questions;

2. Gave legally incorrect information about whether and how these can be specified in the contract;

3. Advised in favor of giving the bride rights (vs. giving no advice or advising against giving rights)

4. Advised against giving the bride rights (vs. giving no advice or advising for giving rights)

5. When prompted for a follow-up visit, advised the caller to bring the bride to the meeting

3.2.6 Household survey

Finally, we also use data from a household survey conducted by the Government of Punjab (the Punjab Commission on the Status of Women and the Punjab Bureau of Statistics) in 2018. The implementers

sampled 30,000 households, spanning every tehsil in the province, and surveyed one woman in every household. The survey included questions on the timing of the respondent's marriage and whether she was informed of and involved in the decisions of the terms set in her marriage contract.

4 Estimation

For our main data sources, we report three specifications. First, we report results from an intent-to-treat specification:

$$Y_{gt} = \beta_0 + \beta_1 UCAssigned_{gt} + \gamma X_i + \epsilon_{it} \tag{1}$$

Second, we use the assignment to training before the date of survey as an instrument for

$$UCTrained_{gt} = \pi_0 + \pi_1 UCAssigned_{gt} + \gamma X_i + \epsilon_{it} \tag{2}$$

$$Y_{igt} = \beta_0 + \beta_1 \widehat{UCTrained}_{gt} + \theta X_i + \omega_{it}$$

Note that both ASSIGNED and TRAINED are defined at the level of the union council g (on average 4-6 registrars), not at the level of the individual registrar. Thus $\hat{\beta}_1$ is an estimate of the total effect of training implemented for a registrar's UC, averaging across registrars who attended and did not attend.

In addition, for our summary index results we report a specification in which we use treatment assignment as an instrument for the individual registrar attending training:

$$RegistrarTrained_{igt} = \pi_0 + \pi_1 UCAssigned_{gt} + \gamma X_i + \mu_t + \epsilon_{it} \tag{3}$$

$$Y_{igt} = \beta_0 + \beta_1 \widehat{RegistrarTrained}_{igt} + \theta X_i + \alpha_t + \omega_{it}$$

In Equation 3 , the exclusion restriction could be invalid if there are knowledge or behavior spillovers from trained to untrained registrars in the same Union Council. Thus, we report this as a benchmark for the effect size on an individual registrar for attending training. For the short-term outcomes measured in Sample 2, this assumption is more likely to be justified as these outcomes are measured in the immediate few days after a treated registrar has been trained.

For contract data, which we observe in Sample 1 for the same registrars both pre and post training, we report an intent to treat specification incorporating the time dimension:

$$Y_{igt} = \beta_0 + \beta_1 UCAssigned_g + \beta_2 Post_t + \beta_3 UCAssigned_g \times Post_t + \gamma X_i + \epsilon_{it} \tag{4}$$

Finally, for the province-wide household cross-sectional survey (Sample 3), we use the non-experimental

rollout of the training across the province to estimate effects on outcomes for women.

$$Y_{igt} = \beta_0 + \beta_1 TehsilTrained_{gt}\beta_2 + \gamma X_i + \eta_g + \mu_t + \epsilon_{it} \qquad (5)$$

Where Y_{igt} is an outcome for respondent i in tehsil g whose marriage occurred at time t. $TehsilTrained_{gt}$ is a dummy for whether the training had been carried out in the respondent's tehsil before her marriage. Tehsil fixed effects η_g and marriage year fixed effects μ_t are included, so that the parameter of interest β_1 is identified from the combination of the variation in respondents' marriage dates and training dates across the province. We restrict the sample to women married in the last 4 or 8 years before the survey date. We cluster standard errors at the level of the tehsil in Equation 5 to reflect the tehsil-level rollout of the training.

5 Results

5.1 Effects of training on knowledge, beliefs and intentions

Table 2 shows the effect of the training on knowledge, using a phone survey conducted midway through the randomized order rollout in Sample 2. Panel A shows the effect of the training on the overall knowledge score; this is the simple mean of fifteen knowledge questions adapted from the government training. Column 1 shows the Intent-to-Treat estimate (Equation 1); Column 2 shows the IV estimate instrumenting for the registrar's *Union Council* attending training before the survey date (Equation 2); and Column 3 shows the IV estimate instrumenting for the registrar himself reporting he has attended training before the survey (Equation 3).

On average, registrars in the control group scored 63% on a test of knowledge on family law related to women's rights. Rollout of the training in a Union Council increased registrars' score on the knowledge test on the phone survey substantially; registrars from trained UCs have a 17% higher score on the knowledge test than the control group (11 percentage points over the control mean of 63% - Panel A, Column 2). The effect at the registrar level is 24 percent (15 percentage points over the control group mean (Panel A, Column 3).

Panels B-F show the results on individual knowledge items by thematic area, estimated using assignment as an instrument for Union Council level training on the assigned date (Equation 2). This includes key areas of knowledge relevant for women's rights in marriage. There is a large and increase in the proportion of registrars who are aware of the legal minimum age for women to marry (Panel B, Column 1). The training also increased registrars' knowledge of the key requirements for an Islamic marriage including the consent of both the bride and groom, a "meher" payment which belongs to the bride personally, and the registration of an official marriage contract. (Panel B, Column 3)

There is no detectable change in knowledge about a wife's rights to initiate divorce or her rights if her husband wishes to divorce her (Panel C). However, the training does increase registrars' understanding about the complex procedures required for a woman to seek a divorce through an Arbitration Council (khula) if her marriage contract does not provide her the unilateral right to divorce (delegated divorce or talaq-e-takhweez) (Panel D, Column 2). Trained registrars are much more likely to be aware that a bride who does not have the right to unilateral divorce must forego her financial rights in the contract (return or waive her "meher" payment) if she seeks a divorce through the Arbitration Council (Panel D, Column 4).

The training also increases registrar awareness of a key point in the bride's financial rights: that she is the sole legal owner of gifts she receives at the wedding, which may be the most valuable assets or only she owns (Panel E, Column 2).

The largest and most robust knowledge effects are in the knowledge of the potential penalties (fines and jail time) that can be imposed on registrars in case they participate in a forced marriage, an underage marriage, or fail to register the marriage certificate (Panel F). In addition, the training substantially increases the belief that such punishments are *ever* enforced against registrars (this outcome is not included in the knowledge index).

The training also significantly affected marriage registrars' stated intentions on specific future practices that favor women's rights, with substantial increases in the proportion of marriage registrars who say they intend to advise families more often on how to fill out key provisions of the marriage contract and check the bride's and groom's understanding personally, as well as checking the permission of the first wife in case of a polygamous marriage (Table 3). We expect these "stated intent" variables to be affected by response bias as respondents would want to avoid stating that they will violate the law; thus we interpret them as further evidence of improved understanding of the law or the possibility of punishment.

5.2   Bride's informed consent to terms of contract

Table 4 shows the results of Equation 5. The identification here rests on a combination of variation in marriage timing and the non-experimental rollout of the training across the province; all estimates include both tehsil fixed effects and marriage year fixed effects.

All panels show our pre-specified primary outcome for this dataset: whether a woman says she was informed of the terms in her marriage contract. In the control group, only 30-35% of brides say they were informed of the terms specified in their marriage contracts. The overall effect is positive but imprecisely estimated. Panels B and C break this effect down into heterogeneous treatment effects as specified in our pre-analysis plan. Panel B shows that for educated brides, those who were married after the training occurred in their tehsils were 11-14 percentage points (28-35%) more likely to say that they

were informed. These estimates are stable across variations in the window of marriage years included in the estimation sample as well as varying control variables. The estimates in Panel C break down the estimates by the baseline mean outcome variable, i.e. the proportion of women who were married before 2010 (and are therefore not included in the estimation sample) who were informed of the terms of their marriage contracts; these results are imprecisely estimated.

Table A3 shows a placebo check, in which we assign a placebo training date two years before the actual training date in each tehsil. There is no similar pattern of results: the point estimates are negative and all results are statistically insignificant.

5.3 Compliance with law in written contracts

The contract data collected for a year pre and post training in Sample 1 allow us to test for effects on legally binding marriage contracts. We first examine registrar compliance with the law in the recorded contract. Table 5 shows the results. There are substantial violations of the law in the control group: 42% of contracts show that the question which allows the family to choose whether the bride will have the right to unilateral divorce has been illegally crossed out, 96% do not include a copy of the bride's ID card and 93% do not have a copy of the groom's ID card, and 26% have other errors.

The training has a substantial impact on reducing these violations. The proportion of contracts in which the right to unilateral divorce has been illegally crossed out decreases by 21 percentage points from 42% (almost a 50% decrease). This may indicate that registrars are more likely to offer this option in the contract to the families to select, as legally required, instead of overriding this option themselves.

There is a more modest decrease in the proportion of contracts missing the bride's or groom's ID card copy. Overall, these effects on violations stayed stable over time (Figure 6).

The training could have increased the number of contracts that registrars register in the official records. Since the training emphasized the importance of registration, it might have increased the number of records. Alternatively, if the training increased registrars' concern about punishment for violations in contracts, it could have decreased the number registered. We test for this and confirm there is no change in the number of contracts registered in response to the training in Sample 1 (Table A2).

5.4 Contractual terms

Despite the reduction in legal violations and increase in brides' informed consent to the terms of the marriage contract, there was no detectable improvement in the terms themselves (Table 6). While the treatment substantially reduced the proportion of registrars who illegally crossed out the question giving the family the option of the bride's right to unilaterally initiate divorce, the proportion of contracts in which the "yes" answer was actually selected did not change: only 1% of contracts have this right selected in the control group, and the treatment did not induce a detectable change in this. (Table 7 shows that

there is also no detectable effect on marriage age reported on the contract, although the control means demonstrate that underage marriage is extremely uncommon in Sample 1, thus we would be unlikely to detect any change in these data.).

It may not be surprising that the training by itself did not shift contractual outcomes, especially given the controversial nature of some of the terms (particularly unilateral divorce) and the focus of the training on legal compliance rather than normative guidance.

The decision on terms to include in the marriage contract is ultimately made with some combination of input from family members and the registrar. If in the pre-treatment status quo, families sought better rights for the bride but the registrar overruled them, then the training might change the observed contractual outcomes. On the other hand, if families preferred to negotiate limited rights for the bride, we might see no effect of any change in the registrar's advice in the contract data.

To isolate effects on the "supply side" of registrar advice, we use data from the mystery shopper exercise. We vary the family demand by varying whether the caller comes from the bride's or the groom's side, and cross-randomize that with registrar's randomized treatment status in Sample 1. We see no detectable effect on registrar advice to callers on specific financial terms (Table 8). However, the "bride side calling" term is large, positive and significant in the pooled specification and the two individual scenarios: when the bride's family calls and asks for help on negotiating terms for their, the registrar is more likely to advise for the bride's rights than when the groom's side calls, seeking to avoid giving these rights. This may suggest that registrars, despite their apparent influence on the contract outcomes, are receptive to demand from the family in determining contractual terms.

6   Conclusion

Our findings demonstrate that the training increased registrar knowledge, decreased the rate at which registrars overrule families' option to give brides rights in the contracts, and increased the proportion of brides who gave informed consent to the terms of their contract. However, the terms themselves do not change. Taken together, these findings suggest the potential importance of intervention with registrars and intervention with young women's families.

References

Christopher Blattman, Alexandra Hartman, and Robert Blair. How to Promote Order and Property Rights under Weak Rule of Law? An Experiment in Changing Dispute Resolution Behavior. *American Political Science Review*, 108(1), 2014. doi: 10.1017/S0003055413000543.

Nina Buchmann, Erica Field, Rachel Glennerster, and Shahana Nazneen. Power vs Money : Alternative Approaches to Reducing Child Marriage in Bangladesh , a Randomized Control Trial. 2018.

Matthias Doepke, Michèle Tertilt, and Alessandra Voena. The Economics and Politics of Women's Rights. *NBER Working Paper 17672*, 1:339–72, 2011. ISSN 1098-6596. doi: 10.1146/annurev-economics-061109-080201.

Erica Field and Attila Ambrus. Early Marriage, Age of Menarche, and Female Schooling Attainment in Bangladesh. *Journal of Political Economy*, 116(5):881–930, 2008. ISSN 0022-3808. doi: 10.1086/593333. URL https://www.journals.uchicago.edu/doi/10.1086/593333.

James Greiner, Cassandra Pattanayak, and Jonathan Hennessy. The limits of unbundled legal assistance: a randomized study in a Massachussetts district court and prospects for the future. *Harvard Law Review*, 126(4), 2013.

Youjin Hahn, Asadul Islam, Kanti Nuzhat, Russell Smyth, and Hee-Seung Yang. Education, Marriage, and Fertility: Long-Term Evidence from a Female Stipend Program in Bangladesh. *Economic Development and Cultural Change*, 66(2):383–415, 2018. ISSN 0013-0079. doi: 10.1086/694930. URL https://www.journals.uchicago.edu/doi/10.1086/694930.

Mary Hallward-Driemeier, Tazeen Hasan, and Anca Bogdana Rusu. Women's Legal Rights over 50 Years What Is the Impact of Reform? *The World Bank Policy Research Working Paper*, 6617(September): Washington DC, 2013.

Valerie Mueller, Lucy Billings, Tewodaj Mogues, Amber Peterman, and Ayala Wineman. Filling the legal void? Experimental evidence from a community-based legal aid program for gender-equal land rights in Tanzania. (April), 2015. URL http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/129099.

Justin Sandefur and Bilal Siddiqi. Delivering Justice to the Poor: Theory and Experimental Evidence from Liberia. pages 1–58, 2015.

Carroll Seron, Gregg Van Ryzin, and Martin Frankel. The impact of legal counsel on outcomes for poor tenants in New York City's Housing Court: Results of a Randomized Experiment. 2001.

Betsey Stevenson and Justin Wolfers. Bargaining in the Shadow of the Law: Divorce Laws and Family Distress. *The Quarterly Journal of Economics*, 121(1):267–288, 2006. ISSN 0033-5533. doi: 10.1162/003355306776083572. URL http://www.jstor.org/stable/25098790{%}5Cnhttp://about.jstor.org/terms.

Tables and figures

Table 1: Overview of de facto vs. de jure differences in marriage rights and data sources

	De jure	De facto	Knowledge outcome variable	Stated intent outcome variable	Realized outcome variable
Age of marriage	16 for women	Under-age marriage common	Knowledge of marriage age; knowledge of penalty for under-age marriage	Intent to check bride's ID	Age recorded in marriage contract; whether ID card is attached to contract
Consent to partner	Bride and groom must consent	Parent and community select and may consult bride and groom	Knowledge of consent requirement; knowledge of penalty for forced marriage	N/A	Household survey: consent to partner
Financial terms	Individuals must consent	Brides rarely informed HH survey: informed of terms in contract	Knowledge of financial terms	N/A	Financial terms recorded in contract
Woman's unilateral right to divorce ("delegated divorce")	Couple consent to contract specifying right Y/N	Registrar often crosses out this provision; brides rarely informed / consulted on provisions Household survey: informed of terms in contract	Knowledge of delegated divorce right	Plan to advise right of delegated divorce; plan to check bride's understanding of contract personally	Delegated divorce provision crossed; delegated divorce provision selected; Mystery shopper: bride's right to divorce
Additional terms in open-ended section of contract (e.g. affirming / restricting bride's right to work or study)	Restriction on right to work / study is illegal; affirming right	Illegal restrictions sometimes included. Brides rarely informed / consulted on terms	N/A	Plan to check bride's understanding of terms personally	Mystery shopper: bride's right to work/study after marriage; Observation of terms in contract; HH survey: informed of terms in contract
Polygamy	First wife must consent	First wife not always consulted	Knowledge of consent requirement	Stated intent to check first wife's consent	N/A

Table 2: Treatment Effects on Marriage Registrar Knowledge of the Law

Panel A: Knowledge index

	Mean correct across all knowledge questions		
UC assigned to be trained	0.075***		
	(0.011)		
UC trained (instrumented)		0.111***	
		(0.016)	
NR attended (instrumented)			0.147***
			(0.020)
Control Mean	0.632	0.632	0.632
Observations	866	866	866

Panel B: Knowledge on age and consent - correct answers on question about:

	Bride's age	Register underage	Consent / witness
UC trained (instrumented)	0.479***	0.010	0.117***
	(0.042)	(0.023)	(0.038)
Control Mean	0.492	0.950	0.831
Observations	863	863	863

Panel C: Knowledge on divorce rights - correct answers on question about:

	Groom verbal divorce ("triple talaq")	Bride unilateral divorce	Conditions groom divorce
UC trained (instrumented)	0.068	0.070	0.043
	(0.051)	(0.054)	(0.044)
Control Mean	0.403	0.701	0.775
Observations	866	863	863

Panel D: Knowledge on divorce procedures - correct answers on question about:

	Whom to contact for khula divorce	Who can form arbitration council	Who can be member arbitration council	Bride waives meher payment if seeks khula divorce
UC trained (instrumented)	0.026	0.151***	0.007	0.130***
	(0.044)	(0.033)	(0.045)	(0.037)
Control Mean	0.659	0.831	0.587	0.098
Observations	863	863	863	863

Panel E: Knowledge on financial terms - correct answers on question about:

	Required meher	Who owns bride's gifts
UC trained (instrumented)	-0.000	0.136***
	(0.033)	(0.047)
Control Mean	0.907	0.725
Observations	863	863

Panel F: Knowledge and beliefs about penalties for registrars

	Knows Penalty forced marriage	Knows Penalty underage marriage	Knows Penalty non registration	Believes Rules never enforced
UC trained (instrumented)	0.204***	0.174***	0.119***	-0.101**
	(0.041)	(0.045)	(0.027)	(0.045)
Control Mean	0.733	0.770	0.889	0.697
Observations	863	863	863	866

Notes: Sample (2). SEs clustered at the Union Council level. No controls added. All variables in Panels B-F are indicators for the registrar answering correctly to the knowledge question listed. * p < 0.1 ** p < 0.05 *** p < 0.01

Table 3: Treatment Effects on Marriage Registrar Stated Intentions

Panel A: Index of Stated Intentions

heightAssigned to be trained	0.076***		
	(0.017)		
UC trained (instrumented)		0.113***	
		(0.025)	
NR attended (instrumented)			0.150***
			(0.032)
Control Mean	0.679	0.679	0.679
Observations	866	866	866

Panel B: Checking age and consent requirements

	Groom understands	Bride understands	Check bride's ID	Check consent polygamy
UC trained (instrumented)	0.101***	0.190***	0.000	0.114**
	(0.035)	(0.053)	(0.010)	(0.046)
Control Mean	0.850	0.424	0.989	0.676
Observations	866	866	866	866

Panel C: Advising on contractual terms

	Advise on contract terms	Advise bride right of unilateral divorce	Advise conditions on groom's divorce right
UC trained (instrumented)	0.244***	0.070	0.073
	(0.039)	(0.060)	(0.054)
Control Mean	0.747	0.500	0.568
Observations	866	866	866

Notes: Sample (2). IV estimates with SEs clustered at the Union Council level. No controls added. Assigned to be trained is an indicator that is 1 if the marriage registrar's Union Council was randomized into a training date before the survey date. Panels B-C: All variables are coded as 1 if the marriage registrar states he intends to carry out that practice in the future. Dependent variable in Panel (A) is the mean of the indicators in Panels B-C. * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$

Table 4: Impacts of training on bride's informed consent to terms of marriage contract - PCSW household survey

Panel A: Overall effects

	Respondent informed of terms of marriage contract											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tehsil trained	0.042	0.046	0.058	0.077	0.038	0.039	0.052	0.064	0.038	0.042	0.056	0.066
before respondent's marriage	(0.060)	(0.060)	(0.062)	(0.066)	(0.054)	(0.055)	(0.058)	(0.062)	(0.055)	(0.056)	(0.058)	(0.062)
Observations	4971	3671	2455	1361	4971	3671	2455	1361	4958	3658	2446	1354
Control mean	0.321	0.396	0.366	0.348	0.321	0.396	0.366	0.348	0.321	0.395	0.366	0.347
Marriage years in sample	2010-2018	2012-2018	2014-2018	2016-2018	2010-2018	2012-2018	2014-2018	2016-2018	2010-2018	2012-2018	2014-2018	2016-2018
Tehsil FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marriage year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Set 1	Set 1	Set 1	Set 1	Set 2	Set 2	Set 2	Set 2	Set 3	Set 3	Set 3	Set 3

Panel B: HTE by respondent education (pre-registered)

	Respondent informed of terms of marriage contract											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tehsil trained	-0.088	-0.086	-0.064	-0.050	-0.078	-0.082	-0.062	-0.056	-0.076	-0.078	-0.056	-0.052
before respondent's marriage × respondent not educated	(0.070)	(0.070)	(0.070)	(0.068)	(0.069)	(0.069)	(0.069)	(0.068)	(0.069)	(0.070)	(0.069)	(0.069)
Tehsil trained	0.114*	0.120*	0.130*	0.150**	0.105*	0.110*	0.119*	0.133*	0.103	0.109*	0.118*	0.132*
before respondent's marriage × respondent educated	(0.068)	(0.068)	(0.072)	(0.075)	(0.063)	(0.064)	(0.068)	(0.072)	(0.064)	(0.065)	(0.069)	(0.073)
Observations	4971	3671	2455	1361	4971	3671	2455	1361	4958	3658	2446	1354
Control mean	0.321	0.396	0.366	0.348	0.321	0.396	0.366	0.348	0.321	0.395	0.366	0.347
Marriage years in sample	2010-2018	2012-2018	2014-2018	2016-2018	2010-2018	2012-2018	2014-2018	2016-2018	2010-2018	2012-2018	2014-2018	2016-2018
Tehsil FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marriage year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Set 1	Set 1	Set 1	Set 1	Set 2	Set 2	Set 2	Set 2	Set 3	Set 3	Set 3	Set 3

Panel C: HTE by baseline mean in village (pre-registered)

	Respondent informed of terms of marriage contract											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
treat_highbl_informed_nn	0.080	0.095	0.103	0.120	0.055	0.065	0.074	0.085	0.048	0.060	0.071	0.082
	(0.079)	(0.079)	(0.080)	(0.089)	(0.072)	(0.074)	(0.075)	(0.082)	(0.075)	(0.076)	(0.077)	(0.085)
treat_lowbl_informed_nn	0.011	0.007	0.022	0.039	0.027	0.022	0.038	0.048	0.029	0.025	0.041	0.051
	(0.075)	(0.074)	(0.078)	(0.080)	(0.070)	(0.069)	(0.073)	(0.077)	(0.068)	(0.068)	(0.072)	(0.074)
Observations	4963	3663	2450	1357	4963	3663	2450	1357	4958	3658	2446	1354
Control mean	0.321	0.395	0.366	0.347	0.321	0.395	0.366	0.347	0.321	0.395	0.366	0.347
Marriage years in sample	2010-2018	2012-2018	2014-2018	2016-2018	2010-2018	2012-2018	2014-2018	2016-2018	2010-2018	2012-2018	2014-2018	2016-2018
Tehsil FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marriage year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Set 1	Set 1	Set 1	Set 1	Set 2	Set 2	Set 2	Set 2	Set 3	Set 3	Set 3	Set 3

Notes: Sample 3 (province-wide) household survey data. Equation 5. Unit of observation is one woman. Standard errors clustered at the tehsil level. * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$

Table 5: Treatment effects on illegal / erroneous practices in marriage contracts

	Index	"Delegated" divorce right crossed out	Number other errors	Bride's age missing	Bride ID missing	Groom ID missing
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.027	0.115**	-0.003	-0.005	0.011	0.019
	(0.023)	(0.056)	(0.062)	(0.007)	(0.016)	(0.028)
Post	-0.017**	-0.050**	-0.034	-0.003	-0.001	0.005
	(0.008)	(0.024)	(0.026)	(0.006)	(0.007)	(0.011)
Treatment x Post	-0.053***	-0.211***	0.013	-0.000	-0.028*	-0.039*
	(0.014)	(0.040)	(0.038)	(0.007)	(0.015)	(0.021)
Observations	14567	14554	14554	14567	14567	14567
Control mean Y	0.519	0.419	0.263	0.0209	0.960	0.931
Tehsil FE	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes	Yes

Notes: ITT estimates with SEs clustered at the Union Council level. Sample (1). Unit of observation is one marriage contract. Equation 4. * p < 0.1 ** p < 0.05 *** p < 0.01

Table 6: Treatment effects on contractual terms in marriage contracts

	Index	Bride unilateral divorce right	Ln mehr payment to bride	No conditions favoring groom	Conditions favoring bride	Limits on groom's divorce right
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	-0.009	-0.001	-0.092	-0.000	0.011	-0.006
	(0.012)	(0.004)	(0.083)	(0.000)	(0.015)	(0.006)
Post	-0.001	0.005*	0.046	-0.000	-0.016*	0.001
	(0.005)	(0.003)	(0.040)	(0.000)	(0.008)	(0.004)
Treatment x Post	-0.000	-0.004	-0.010	-0.000	-0.004	0.002
	(0.008)	(0.004)	(0.062)	(0.000)	(0.012)	(0.005)
Observations	14567	14554	13752	14567	14567	14567
Control mean Y	0.474	0.0107	9.161	1.000	0.109	0.0172
Tehsil FE	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes	Yes

Notes: ITT estimates with SEs clustered at the Union Council level. Sample (1). Unit of observation is one marriage contract. Equation 4. * p < 0.1 ** p < 0.05 *** p < 0.01

Table 7: Treatment effects on marriage age recorded in marriage contracts

	Index	Age	Age < 16	Age < 18
	(1)	(2)	(3)	(4)
Treatment	-0.017*	-0.219	-0.000	-0.002
	(0.010)	(0.247)	(0.001)	(0.004)
Post	0.010	0.498***	-0.001	-0.004
	(0.006)	(0.159)	(0.001)	(0.004)
Treatment x Post	0.002	-0.101	0.000	0.012*
	(0.008)	(0.226)	(0.001)	(0.006)
Observations	14567	14283	14283	14283
Control mean Y	0.181	23.82	0.00136	0.0240
Tehsil FE	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes

Notes: ITT estimates with SEs clustered at the Union Council level. Sample (1). Unit of observation is one marriage contract. Equation 4. * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$

Table 8: Mystery Shoppers - All scenarios

	The Marriage Registrar...					
	Responded	Answered questions	Gives incorrect info	Advises bring bride	Pro bride's rights	Against bride's rights
Treatment UCs	0.002	-0.002	-0.029	-0.006	-0.002	0.018
	(0.004)	(0.013)	(0.033)	(0.012)	(0.028)	(0.030)
Bride Side	0.000	-0.007	-0.080*	0.010	0.066*	-0.012
	(0.007)	(0.018)	(0.043)	(0.016)	(0.035)	(0.038)
Treat*Bride Side	0.002	-0.003	0.046	-0.011	-0.027	-0.006
	(0.006)	(0.017)	(0.045)	(0.020)	(0.038)	(0.041)
Control Mean	0.996	0.964	0.548	0.060	0.230	0.485
Tehsil FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2207	2207	2204	2203	2204	2204

Answered Questions is a variable that takes value 1 if the marriage registrar answered the phone call and agreed to answer to the questions. * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$

Figure 1

Do people in your community
inform the bride about the answers in the nikahnama?

Results exported on 10 May 2019 with data entered from 18257 NRs
Source: Pre Questionnaire administered at trainings conducted by PCSW 2017-2018

Figure 2

How often do nikkah registrars advise on key issues
in the filling of nikahnama?

Results exported on 19 Apr 2019 with data entered from 18257 NRs
Source: Pre Questionnaire administered at trainings conducted by PCSW 2017-2018
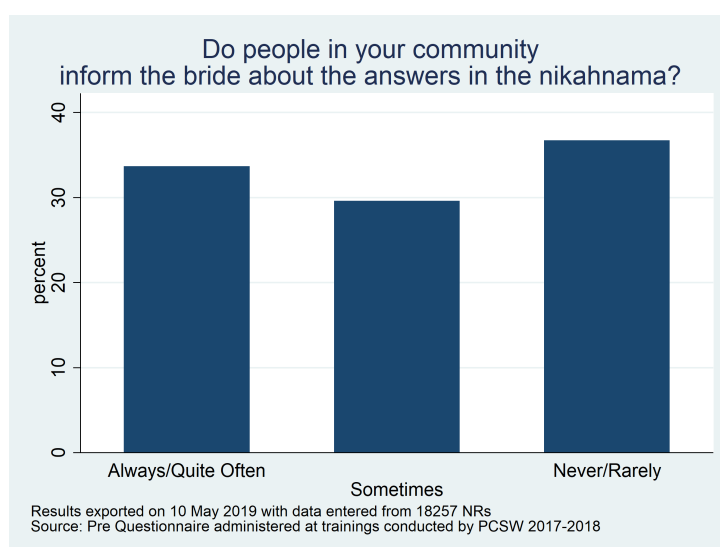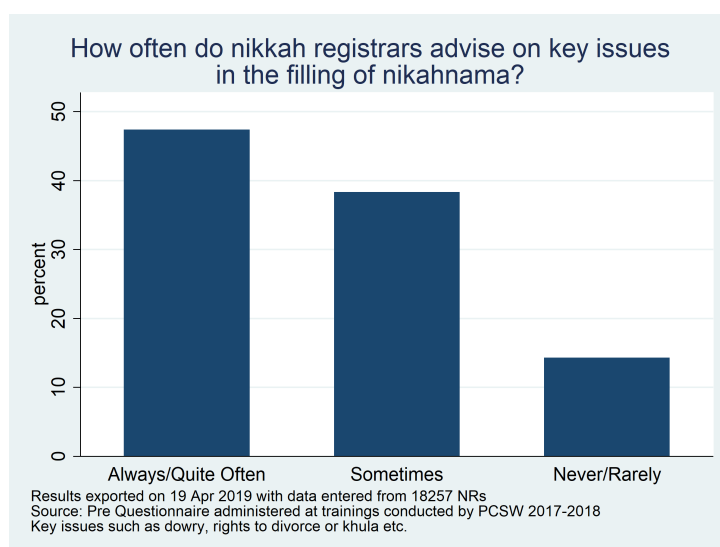Key issues such as dowry, rights to divorce or khula etc.

Figure 3

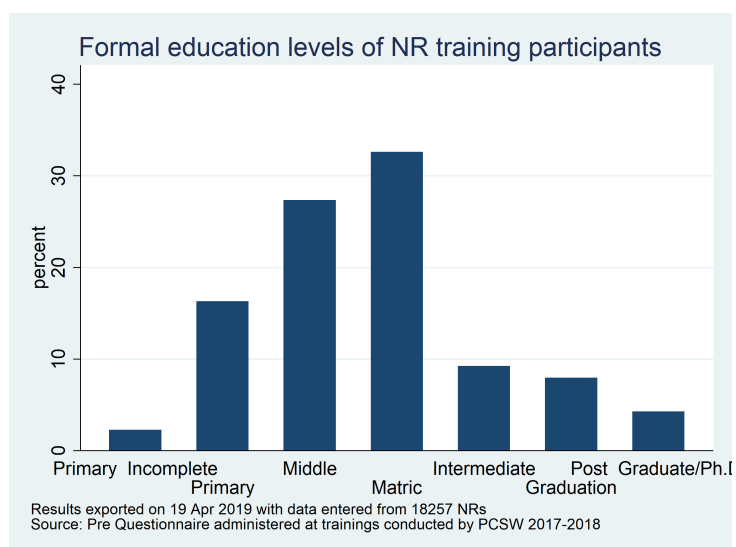Figure 4

Figure 5: Treatment effects on stated intentions by registrar baseline score and education

25

Figure 6:

Treatment Effect Over Time
on Index of Procedural Irregularities
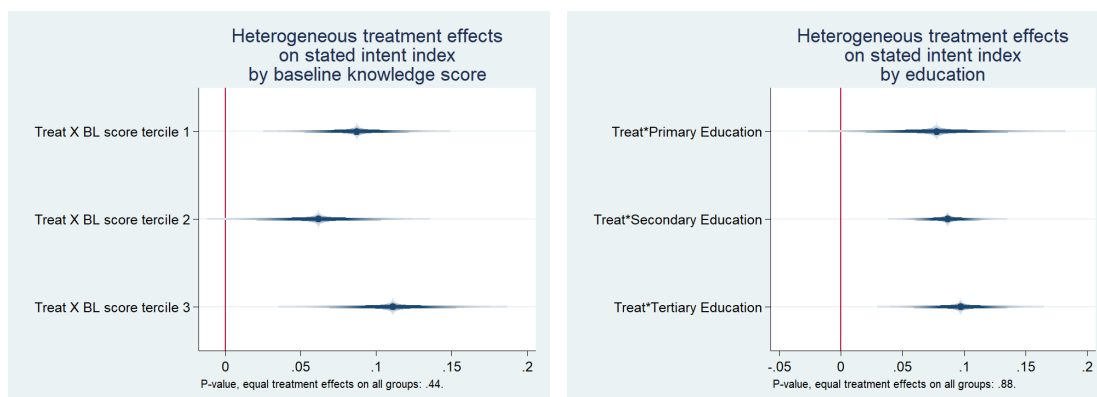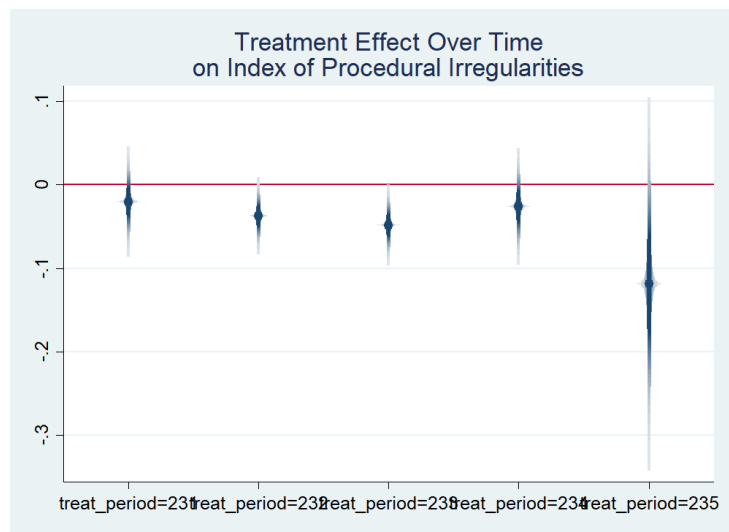
A   Appendix A: Supplemental tables and figures

Table A1: First stage

	(1) Attended training b/se	(2) NR attended (instrumented) b/se
Treatment	0.447***	
	(0.025)	
UC assigned to be trained		0.508***
		(0.036)
Observations	4918	866
Sample	Sample 1	Sample 2
Control group mean	0.0979	0.324

Table A2: Treatment effects on number of contracts registered

	(1) Number of contracts	(2) Any contract
Treatment	-1.079*	-0.070
	(0.647)	(0.054)
post	-0.553	-0.006
	(0.390)	(0.023)
treat_post	-0.344	0.024
	(0.525)	(0.036)
Control Mean	5.185	0.587
Observations	3266	3266

Notes: Sample 1 (Lahore) marriage contract data. Unit of observation is one registrar. Intent to treat estimates shown. * p < 0.1 ** p < 0.05 *** p < 0.01

Table A3: Household survey: Placebo test

Respondent informed of terms of marriage contract

Panel B: Overall effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Placebo treatment	-0.047	-0.058*	-0.051	0.005	-0.040	-0.051*	-0.036	0.019	-0.044	-0.053*	-0.037	0.019
	(0.032)	(0.033)	(0.037)	(0.080)	(0.030)	(0.031)	(0.036)	(0.074)	(0.031)	(0.031)	(0.036)	(0.074)
Observations	4668	3368	2152	1058	4668	3368	2152	1058	4656	3356	2144	1052
Control mean	0.321	0.396	0.366	0.348	0.321	0.396	0.366	0.348	0.321	0.395	0.366	0.347
Marriage years in sample	2010-2017	2012-2017	2014-2017	2016-2017	2010-2017	2012-2017	2014-2017	2016-2017	2010-2017	2012-2017	2014-2017	2016-2017
Tehsil FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marriage year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Set 1	Set 1	Set 1	Set 1	Set 2	Set 2	Set 2	Set 2	Set 3	Set 3	Set 3	Set 3

Panel B: HTE by respondent education

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Placebo treatment × respondent not educated	-0.052	-0.060	-0.044	0.030	-0.041	-0.055	-0.043	0.023	-0.043	-0.053	-0.040	0.024
	(0.040)	(0.044)	(0.046)	(0.085)	(0.039)	(0.042)	(0.045)	(0.083)	(0.039)	(0.042)	(0.045)	(0.084)
Placebo treatment × respondent educated	-0.046	-0.054	-0.036	0.002	-0.040	-0.049	-0.032	0.016	-0.044	-0.053	-0.035	0.016
	(0.039)	(0.040)	(0.044)	(0.084)	(0.037)	(0.038)	(0.042)	(0.080)	(0.038)	(0.039)	(0.043)	(0.081)
Observations	4668	3368	2152	1058	4668	3368	2152	1058	4656	3356	2144	1052
Control mean	0.321	0.396	0.366	0.348	0.321	0.396	0.366	0.348	0.321	0.395	0.366	0.347
Marriage years in sample	2010-2017	2012-2017	2014-2017	2016-2017	2010-2017	2012-2017	2014-2017	2016-2017	2010-2017	2012-2017	2014-2017	2016-2017
Tehsil FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marriage year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Set 1	Set 1	Set 1	Set 1	Set 2	Set 2	Set 2	Set 2	Set 3	Set 3	Set 3	Set 3

Panel C: HTE by baseline mean outcome in village

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tehsil trained before respondent's marriage × high village BL Y	-0.037	-0.045	-0.041	0.110	-0.031	-0.035	-0.026	0.108	-0.040	-0.042	-0.031	0.088
	(0.051)	(0.054)	(0.055)	(0.103)	(0.049)	(0.050)	(0.052)	(0.097)	(0.050)	(0.052)	(0.053)	(0.098)
Tehsil trained before respondent's marriage × low village BL Y	-0.017	-0.039	-0.031	0.053	-0.019	-0.041	-0.021	0.052	-0.022	-0.044	-0.021	0.063
	(0.052)	(0.053)	(0.056)	(0.088)	(0.050)	(0.051)	(0.055)	(0.083)	(0.051)	(0.051)	(0.055)	(0.085)
Observations	4162	2862	1649	556	4162	2862	1649	556	4157	2857	1645	553
Control mean	0.321	0.395	0.366	0.347	0.321	0.395	0.366	0.347	0.321	0.395	0.366	0.347
Marriage years in sample	2010-2017	2012-2017	2014-2017	2016-2017	2010-2017	2012-2017	2014-2017	2016-2017	2010-2017	2012-2017	2014-2017	2016-2017
Tehsil FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marriage year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Set 1	Set 1	Set 1	Set 1	Set 2	Set 2	Set 2	Set 2	Set 3	Set 3	Set 3	Set 3

Notes: Sample 3 (province-wide) household survey data. Equation 5. Unit of observation is one woman. Standard errors clustered at the tehsil level. * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$

Table A4: Mystery Shoppers - Specifying bride's right to work after marriage in contract

The Marriage Registrar...

	Responded	Answered questions	Gives incorrect info	Advises bring bride	Pro bride's rights	Against bride's rights
Treatment UCs	-0.002	-0.027**	0.022	-0.012	-0.021	0.059
	(0.002)	(0.012)	(0.043)	(0.025)	(0.037)	(0.040)
Bride Side	-0.000	-0.019*	-0.160***	0.101***	0.089**	0.018
	(0.000)	(0.011)	(0.056)	(0.037)	(0.044)	(0.049)
Treat*Bride Side	0.002	0.011	0.043	-0.026	0.018	-0.075
	(0.002)	(0.018)	(0.065)	(0.041)	(0.053)	(0.057)
Control Mean	0.608	0.588	0.548	0.060	0.230	0.485
Tehsil FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1094	1094	1093	1093	1093	1093

* $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$

Table A5: Mystery Shoppers - Specifying Bride's Right to Initiate Divorce (Delegated Divorce)

The Marriage Registrar...

	Responded	Answered questions	Gives incorrect info	Advises bring bride	Pro bride's rights	Against bride's rights
Treatment UCs	0.005	0.022	-0.074	0.000	0.012	-0.018
	(0.008)	(0.019)	(0.051)	(0.000)	(0.038)	(0.041)
Bride Side	0.001	0.003	-0.076	-0.000	0.096**	-0.056
	(0.010)	(0.026)	(0.055)	(0.000)	(0.041)	(0.046)
Treat*Bride Side	0.002	-0.016	0.041	0.002	-0.067	0.054
	(0.011)	(0.028)	(0.065)	(0.002)	(0.048)	(0.054)
Control Mean	0.608	0.588	0.548	0.060	0.230	0.485
Tehsil FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1113	1113	1111	1110	1111	1111

* $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$