Public Work Programs and Gender-Based Violence

Evidence from Lao PDR

Elizaveta Perova

Erik Johnson

Aneesh Mannava

Sarah Reynolds

Alana Teman

WORLD BANK GROUP

East Asia and the Pacific Region

Gender Innovation Lab

June 2021

Abstract

Public workfare programs targeted at women have the potential to empower them economically by providing jobs. However, the impact of public workfare programs on gender-based violence is theoretically ambiguous. They may contribute to its reduction through lowering financial stress or improving a woman's bargaining position due to independent income. Yet, a woman's higher income may also create incentives to use violence for extractive purposes; putting women in a position of provider at home and in male dominated sectors outside the home may create a backlash because these positions violate gender norms. Working outside the home could reduce exposure to an abusive spouse, but it may increase harassment or assault outside the household. This paper analyzes the impacts of a public workfare program in the Lao People's Democratic Republic, a lower-middle-income Asian country, where

the government randomized implementation of a public workfare program targeted at rural women who received an average payment of US\$550 over 18 months. The findings show that the program was successful in increasing female income, but it did not change women's experience of gender-based violence: comparing program participants and control group women, there is no differences in self-reports of intimate partner violence (controlling behavior, emotional violence, or physical violence), violence from other members of the household, or violence from perpetrators outside the household. Some design aspects of this particular program may have resulted in the lack of impacts on gender-based violence. Changes in the design and implementation of public workfare programs are needed for them to work as a mechanism to reduce gender-based violence.

This paper is a product of the Gender Innovation Lab, East Asia and the Pacific Region. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions around the world. Policy Research Working Papers are also posted on the Web at <http://www.worldbank.org/prwp>. The authors may be contacted at eperova@worldbank.org.

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

Public Work Programs and Gender-Based Violence: Evidence from Lao PDR

Elizaveta Perova^{1*}, Erik Johnson¹, Aneesh Mannava, Sarah Reynolds², and Alana Teman

JEL codes: D1, D04, I15, J12, J16

Key words: public work programs, gender-based violence, Southeast Asia, randomized intervention

1 World Bank

2 University of California, Berkeley, School of Public Health

*Corresponding Author eperova@theworldbank.org

We gratefully acknowledge funding from the Umbrella Facility for Gender Equality (UFGE) and Australia's DFAT to carry out this work. The data collection protocols were approved by Health Media Labs IRB. We thank Aline Coudouel, Patrick Premand, Stephanie Kuttner and participants of the East Asia and Pacific Chief Economist Office seminar for insightful comments. We thank Amber Peterman, Sofia Amaral and S Anukriti in advance for reviewing the work. All errors are ours.

1. Introduction

Women's economic empowerment has been theorized to reduce intimate partner violence (IPV), a large component of the broader category of gender-based violence (GBV). Theories based on Nash-bargaining suggest that improving women's options outside a relationship also increases their bargaining power within it (Manser and Brown 1980), and is likely to improve their outcomes within marriage, including exposure to IPV. However, instrumental violence theory, which states that IPV can be used for extractive purposes (Bloch and Rao 2002; Bobonis, González-Brenes, and Castro 2013), suggests a possibility of increasing IPV. Similarly, psychological theories of male backlash, which postulate that violence may be used for maintaining a socially constructed identity of masculine superiority (Macmillan and Gartner 1999; Buller et al. 2018), also predict an increase in IPV. This potential backlash is not limited to the marital sphere. GBV perpetrated by men against women who violate traditional gender norms is also possible beyond domestic life and between strangers. Incidents range from harassment (Akerlof and Kranton 2000) to, in the extreme, femicide, as in the case of garment factory workers in Mexico (Corradi et al. 2016). The mechanisms are quite similar to those behind IPV. Low-skilled women may put up with harassment in the work force due to lack of alternative opportunities in the job market. Similarly, men may feel their labor market security is threatened by women's participation and act in a violent manner to discourage or punish women who work (Pillinger 2017). Although employment may reduce IPV, it could be replaced with GBV experienced in the workplace or while commuting.

In this paper we investigate the effects on both domestic violence and violence outside the home, of temporary employment in a Laotian Public Works Program (PWP) that employed poor women in routine maintenance work on ancillary rural roads. Exploiting a randomized control trial, we are able to provide evidence on the causal relationship between women's temporary employment opportunities and their exposure to IPV, violence from other members of the household, and violence outside the home. The public workfare program targeted women from the poorest households in villages in rural Lao PDR, where few wage opportunities exist. Additionally, jobs in infrastructure are traditionally male occupations, so this program challenged typical gender norms. Although there was almost complete participation among the treated and large increases in household income, we find no change in self-reported exposure to IPV, in GBV from other household members (including controlling behavior, emotional, sexual or physical violence) nor in GBV outside the home.

We are only aware of one paper that has studied women's labor market participation and GBV outside the home in lower- and middle-income countries. Amaral et al. find a government-sponsored employment program primarily benefitting poor women increased kidnappings, sexual harassment, and domestic violence, though dowry deaths decreased (Amaral, Bandyopadhyay, and Sensarma 2015). Other causal studies examine the broad category of GBV but do not distinguish between domestic violence and

violence outside the home (e.g. Aizer 2010; Amaral 2019, Perova, Reynolds and Schmutte, 2021).¹ A larger body of literature from developing country settings on women's economic empowerment and IPV yields mixed findings. At an aggregate scale in Mexico, an increase in women's employment increased homicides of married women (Davila 2019), while in India improved labor force participation (Chin 2012) for women reduced IPV. Examination of the impacts of economic empowerment at an individual level by Bulte and Lensink (2019) found that women who received empowerment and business training were more likely to be victims of IPV; the mechanism identified was more conflict over the increased income. Kotsadam and Villanger (2020) randomly assigned manufacturing jobs to equally qualified female applicants in Ethiopia and found that being offered a job had no aggregate effect on experiencing IPV. However, three months after employment, job offers reduced emotional abuse and there were indications of heterogeneous effects whereby women with low bargaining power at baseline experienced increased risks of abuse if offered a job. Heath (2014) provides one example of mixed results in the large correlational literature on women's employment and IPV. She finds evidence in Bangladesh that a woman's initial level of bargaining power can explain heterogeneity in impacts: better labor market options for women decrease the likelihood of experiencing domestic violence for women who have higher baseline bargaining power, but increase the likelihood of experiencing domestic violence among women with lower baseline bargaining power.

Lessons from this literature suggest that workfare programs should be cautious. Workfare programs often target a relatively vulnerable population that typically is poorer, less educated and has lower access to the traditional job market. For women, these characteristics are often correlated with lower empowerment and bargaining power.² Instrumental violence theory and empirical work imply that this group may be particularly vulnerable to an increased exposure of IPV. In contrast to the population in these employment studies however, participants in our rural sample have fewer outside options than the industrial park settings studied by Kotsadam and Villanger (2020), and the villages studied by Heath (2014), a 30-minute journey from Bangladesh's capital: jobs are scarce in the studied PWP program area. In general, the target population of workfare programs like PWPs traditionally lack access to the labor market for reasons such as limited supply of wage jobs and low level of skills. In this sense, the target population of the PWPs is similar to the target population of cash transfers (CTs). Buller et al. (2018) conducted a review of 14 cash transfer programs and IPV in lower-middle-income countries, and found that in most cases IPV decreased, with a few exceptions. However, unlike conditional cash transfers, the conditions of which focus on children and typically re-enforce women's duties in the domestic sphere, PWPs require participants to work,

¹ Aizer and Perova, Reynolds and Schmutte take the same strategy of analyzing medical injuries for assault as proxies for IPV, though they are unable to differentiate between IPV specifically, GBV outside the home, and incidental crime against women.

² Doss (2017) reviews the literature on proxies for bargaining power.

often in low-skilled jobs, to receive transfers. Transfers from PWP may induce different effects compared with those of unearned income from cash-transfers, since women take on a new role outside the household, which could challenge social and gender norms. When these programs place women in employment traditionally reserved for men, the participants may be more at risk of assault or harassment.

This evaluation of a PWP contributes to the existing literature on GBV and women's economic opportunities in two ways. First, to our knowledge, this is the only study exploring the causal relationship between a workfare program and gender-based violence through a Randomized Controlled Trial. Second, the inclusion of domestic violence (physical or sexual) by a non-partner and violence (physical or sexual) outside the home along with the study of IPV (emotional, physical, sexual violence and controlling behavior) provides a broader analysis of GBV than is typically explored in economic empowerment studies. This consideration is important for women's safety, particularly when employment programs may violate traditional gender norms in the public sphere. Our results of neither a positive nor negative impact on gender-based violence inside and outside the home have at least two policy implications. First, they suggest that PWPs can be used as a mechanism for increasing household income without imposing safety risks on participating women. Second, while some social protection instruments, such as cash transfers, can also serve as a policy tool for lowering IPV, we cannot make a similar case for PWPs. As complementary programming, such as behavioral change communication, increases the potential of cash transfers to reduce GBV (Roy et al. 2019), complementary interventions may be needed for the PWPs to work as GBV-reducing interventions.

2. Context: Gender-Based Violence in Lao PDR

Lao PDR ranks at 113 of 162 countries on gender equality, according to the Gender Inequality Index (GII), produced by UNDP.³ This rank is far behind some countries in Southeast Asia: Singapore (12), Malaysia (59), Vietnam (65) and Thailand (80), though other Southeast Asian countries have similar rank: the Philippines (104), Cambodia (117), Myanmar (118) and Indonesia (121). Despite this low ranking on gender equality, Lao PDR has relatively low rates of IPV, compared to a set of countries for which comparable data are available. The most recent source of nationally representative data on GBV in Lao PDR is the Lao National Survey on Women's Health and Life Experiences, which uses the standardized World Health Organization methodology. The survey results suggest that 15.3% of ever-partnered women experience physical and/or sexual violence from an intimate partner in their lifetime. To contextualize this

³ The GII measures gender inequalities in three aspects of human development—reproductive health, empowerment and economic status. To do so, it aggregates 5 indicators: maternal mortality ratio, adolescent birth rates, proportion of parliamentary seats occupied by females, proportion of females and males aged 25 years and older with at least some secondary education and labor force participation rate of female and male populations aged 15 years and older.

prevalence rate, we compared this to a similar indicator from 47 countries for which a Demographic and Health Survey was administered in the last decade, and included a GBV module based on the WHO methodology. Lifetime exposure to physical and/or sexual violence from intimate partners in these 47 countries ranges from 6.4% in the Comoros to 57.1% in Papua New Guinea. Lao PDR ranks in the 15% of countries with the lowest prevalence of IPV, with a prevalence rate similar to neighboring Philippines (12.2%), Myanmar (16.3%) and Cambodia (18.2%).

The same national survey estimates that 5.1% and 5.3% of Laotian women experience physical and sexual violence, respectively, from a non-partner. For approximately 60% of respondents who reported this violence, the violence was committed by family members. Notably, close to two-thirds of these family members were women, especially mothers and stepmothers. This suggests women in Lao PDR experience relatively low levels of violence by non-partnered men.

Qualitative work (from the Laotian National Commission for Advancement of Women, 2015) outlines four key triggers of IPV: (i) failure of a woman to meet the expectations of gender roles, which assert superiority of a husband; (ii) jealousy, mistrust or infidelity by the husband; (iii) alcohol or drug use; and (iv) financial stress. Notably, women's participation in a PWP program could affect at least two of these triggers: it may violate gender roles and is likely to affect the financial situation of the household.

3. Road Management Group (RMG) Program and Experiment Design

The RMG program emerged from an evaluation of the government's Poverty Reduction Fund (PRF), a community-driven development program aimed at reducing poverty through infrastructure improvements in education, drinking water, irrigation, health, and transport. An evaluation carried out in 2015 showed that the PRF had been successful in improving infrastructure in rural areas but that post-completion, road quality deteriorated quickly. Under pressure from harsh rainy seasons and vehicular traffic, the access roads typically fell into extreme disrepair within a couple years and often became unusable. Aiming to provide a part-time supplementary income-earning opportunity to at-need households and to extend the lives of the access roads, a pilot Road Maintenance Group (RMG) program was established, in which female villagers from poor households would be trained and formed into work units to provide basic road maintenance services.

Two eligibility criteria were used to recruit interested RMG members from each village:

- I. Candidates must belong to a poor household, based on PRF poverty ranking, assigned in 2016 and updated by village heads on the day of the selection.⁴ Only one woman from each such household could participate in the program.

⁴ Dervisevic et. al. (2020) describe this process and confirm targeting is effective.

- II. Candidates must be between 18 and 50 years old, though the upper and lower age limits were not strictly enforced, as long as the woman was deemed capable of performing the work.

In every village, the number of eligible and interested women exceeded the number of available RMG jobs, with the excess demand varying across the villages. Therefore, a lottery was carried out to select RMG group members, with preference given to poorer women, according to their PRF rank. Specifically, PRF ranking divides all households into four groups: “poorest”, “poor”, “middle income” and “better off”. If there were enough interested women from the “poorest” households to fill the village’s RMG and waitlist spots, the lucky draw was restricted to women from these households only.⁵ If there were not enough women from the “poorest” households, the lucky draw was opened up to households in the next poverty rank – “poor” – households, and so on. The pool then included women from both “poor” and “poorest” households, for example, and the resulting lottery meant that some waitlist women were “poorest” and some participants were “poor”. Thus, 339 women were selected to become RMG members and 843 women were waitlisted across 85 villages in 7 provinces.⁶

The women were organized into RMGs of around three to five members, with group size depending on the length of road they were assigned to maintain; generally, one member per kilometer. The groups were tasked with carrying out routine road maintenance, such as clearing roads of vegetation, clearing the drainage system and making small repairs to the road surface. They were provided with simple training and basic hand tools. Payments were made monthly or quarterly, depending on the payment preference of each RMG, corresponding to the number of days worked. Typically, the RMGs worked a few days each month, with monthly variation based on maintenance needs as determined by the weather: the amount of work is generally higher during the wet season. All group members received the same wage, based on a fixed-daily rate set at slightly below the prevailing market wage in each village so as not to discourage private sector employment. The male rate was used because there were few employment opportunities for women; only 5% of the control group were regular earners. The PRF organized monthly road quality audits to assess the quality of the roads and make deduction to the wage payments in case of poor performance. Our respondents reported at endline that they did not experience any deductions.

The road maintenance activities started in June 2018. The maintenance contracts ran for 18 months, from October 2018 up to the January 2020, covering two full wet seasons and providing an average of 75

⁵ The women did not necessarily need to be at the draw; they could be registered by another household member. But women who were selected for the RMG program had to be available for a training session over the two days following the draw.

⁶ Although most RMGs were intended to be drawn from only one village, some were drawn from two. This is why we ended up with a higher number of villages than road-segments. Further, we had targeted 87 villages when planning data collection but later learned that four villages were merged. Therefore, there were only 85 villages in our sample and not 87.

days of employment for each RMG member. This equates to just over four days of work per month. The RMG members were paid wages of around 60,000 kip/day (US\$7.3/day), resulting in a total average income of around \$550 per RMG member over the implementation period. Since this was a part-time activity, the expectation was that it provided supplementary income for participants. Indeed, the RMG payment corresponds to 40% of household income of waitlisted women. This is a meaningful increase in income: for comparison, conditional cash transfers received by the poorest decile in eight Latin American countries are in the range of 7.8% to 33.6% of household income (Amarante and Brun 2018).

4. Data

Baseline data was collected between September and October 2018, before any salary payments were made. Women knew whether they were selected to be a part of a road maintenance group at the time of baseline data collection and had started work. We were able to interview 333 treatment households and women, and 813 control households and women. Not all women who were selected participated in the survey (6 treated households, 34 control households). We discuss attrition from selection to baseline data collection below. The baseline data allowed us to verify that treated and control samples are balanced across many characteristics. However, there are relatively fewer Hmong-Iumien women in the treated sample at baseline, and control group households are smaller and have somewhat higher monthly income⁷ (Table A1⁸). We control for these baseline characteristics in our estimates to account for potential bias from imbalance.

Endline data collection took place in December 2019 and January 2020, 18 months after the program started and the end of the contract period. At endline, we were able to interview 323 treated households and 776 control households. There was attrition of 47 households (4 percent): 10 treated, 37 control.

At both baseline and endline, we administered a household questionnaire to the person most knowledgeable about household matters, and an individual questionnaire to women enrolled as RMG and waitlist (control group) members. GBV experience was measured only at endline because we did not have enough time to pass a supplemental national ethics review for more sensitive data collection before the baseline survey.⁹ A special audio-computer self-interviewing (ACASI) module was developed for administration of GBV questions in order to protect participants' privacy.¹⁰ Our team specifically designed

⁷ The baseline data collection took place after the work had started but before the first monthly payment had been made. It is plausible that we observe lower incomes in the treatment group because RMG women had to give up some other work in order to engage in RMGs.

⁸ Tables starting with A are in the Online Appendix.

⁹ We passed external IRB with HML IRB Research & Ethics and Lao PDR ethics review for both baseline and endline data collection.

¹⁰ It is common for neighbors, relatives, other family members to stop by when interviews are conducted. Given construction of the dwellings (very thin walls), even being in a closed room did not guarantee complete privacy, as one could hear the questions from outside or adjacent rooms.

the ACASI module to suit this study population’s needs, considering their illiteracy and minority languages. Questions were recorded on electronic tablets in multiple ethnic languages and participants were taught during survey administration how to select answers by pressing the appropriate color-coded symbols (e.g. green star = yes). A test module on non-sensitive questions included at the beginning of the GBV module confirmed that the participants had learned it correctly. Participants listened to the questions with headphones and selected their own answers, ensuring confidentiality. Studies that have compared the likelihood of revealing victimization experience suggest that the likelihood of reporting GBV is either higher or at the same level with ACASI, as with traditional face-to-face direct questioning, commonly used in demographic and health surveys (Cullen 2020; Dervisevic et al. 2020).

5. Empirical Approach

The analytical approach was registered as a pre-analysis plan with 3ie RIDIE (study ID: RIDIE-STUDY-ID-5e61e44365ed9). This paper focuses only on the GBV outcomes, and we note deviations from the pre-analysis plan when they occur.

We measure the impact of the RMG program on women and their households through intent-to-treat (ITT) and treatment on the treated (ToT) models. ITT allows us to estimate the population-level effectiveness of the intervention when participants may not comply perfectly with the intervention activities, while ToT identifies the results on those who engaged in the intervention and shows the efficacy that can be achieved if participants comply. We estimate the ITT effect on GBV through the following estimating equation:

$$y_{i1} = \alpha + \beta Treat_{i0} + \gamma X_{i0} + \epsilon_i \quad (1)$$

where y_{i1} is the value of the outcome of interest at endline, $Treat_{i0}$ is a dummy that takes the value of 1 for the treatment group (RMG) as assigned at baseline, and X_{i0} contains a set of baseline characteristics (age, marital status (1/0) ever went to school, ethnicity dummies, household size, winsorized household monthly income and baseline level outcome y_{i0} , when available (as for labor outcomes confirming participation)).

In the case of perfect compliance with treatment assignment, we can interpret the ITT as a Treatment-on-Treated (ToT) effect and this would be equal to the Average Treatment Effect (ATE). However, in our case, 14 women dropped out of the program and were replaced by 12 women from the waitlist. We have information on the women who dropped out, which allows us to track actual treatment. This allows us to instrument for take-up using the random assignment in a two-stage regression to estimate a ToT. Since this is only relevant for women who take up the intervention, it should be interpreted as a

Local Average Treatment Effect (LATE). In the first stage, we estimate the likelihood of taking up the treatment based on (exogenous) assignment to treatment through the randomization process:

$$T_i = \alpha + \pi Z_i + u_i \quad (2)$$

where Z_i is an indicator that takes the value of 1 for women assigned to the RMG and 0 for women assigned to the waitlist, and T_i is equal to 1 if the woman participated in RMG, and 0 otherwise. In the second stage, we regress the outcome of interest on the predicted take-up $\widehat{T}_{i1}$.

We use robust standard errors in all specifications. Since randomization was at the individual level, standard errors are not clustered. However, we also run the estimations with errors clustered by village as a robustness check to account for potential variation in treatment intensity due to the varying number of RMG members per village, and for the possibility that RMG women may be subject to public violence as a group.

Recall our sample suffered from attrition at two points: first, we lost 40 households from selection to baseline data collection, and then another 47 households from baseline to endline. We check whether attrition is affected by observable characteristics, and whether attrition varied by observable characteristics between treatment status by estimating:

$$A_i = \xi_0 + \xi_1 Treat_i + \sum_{k=1}^n \xi_2^k X_i^k + \sum_{k=1}^n \xi_3^k Treat_i X_i^k + \varsigma_i \quad (3)$$

where A_i is a binary variable equal to 1 if individual i was lost to attrition, $Treat_i$ captures treatment or control status, and X_i is a vector of observable baseline characteristics, such as age and marital status. Coefficients ξ_2^k capture whether attrition differs depending on the baseline characteristics. Coefficients ξ_3^k capture whether the likelihood of attrition, associated with a specific observable characteristic, is different depending on treatment status. We estimate equation 3 on two samples: the sample of all who participated in the lottery, and baseline sample. For the first sample, we have a very limited number of variables, which were recorded on the day of the lottery: PRF poverty ranking and women's age. For the second sample, we include in the regression such characteristics as age, marital status, education, household size, household monthly income and ethnicity variables.

Table 1 presents the results. We find no evidence of differential attrition from selection to baseline (Column 1). The RMG participants are not more or less likely to attrit between baseline and endline (Column 2). We also do not find evidence of differential attrition between treatment and control women for specific groups (p-value of F-test for joint significance of all interactions is 0.631). However, we reject the null that attritors and non-attritors are similar across the full set of observable characteristics (Column 2). Attritors are younger, less likely to be married, more likely to belong to ethnic minority groups and come from poorer households, as manifested by observable dwelling characteristics. We address potential bias

due to attrition, along with bias for non-response to be discussed later, by calculating Lee (2009) bounds and Kling-Liebman bounds (Kling & Liebman, 2004).

6. Results

The 85 villages participating in the RMG program are among Lao PDR's poorest and offer few job opportunities. According to the baseline data, only one-fifth of working-age individuals in RMG-eligible households had paid work outside the household. Over 70% of RMG-eligible women worked on the household farm or business in unpaid roles. When compared against rural households from a nationally representative Laos Expenditure and Consumption Survey (LECS) V, used for calculation of poverty rates in Lao PDR, the RMG-eligible households were poorer than the average Laotian rural households across a range of wealth indicators, including housing composition, ownership of durables, and nutrition consumption; wait-listed and RMG women are also less educated on average and less likely to be in the labor force (Baseline Report, East Asia & Pacific Gender Innovation Lab 2020). A supplementary survey confirmed that the program women are among the poorest in these already poor villages (Dervisevic et al. 2020).

6.1. Impact on Women's Economic Situation

The RMG program was meant to directly change labor market activities by giving participants a regularly paying job for 18 months. We first confirm that the intervention has worked as intended before testing how GBV was impacted. To do so, we estimate the impact of treatment on whether the women were listed among the household members that regularly contributed wage income, and on household average monthly wage income contributed over the 12 months preceding the endline survey. We find increases in regular work for RMG members. RMG members were 77.4% more likely than the waitlist group to be regular income earners (Table 2). Monthly income (winsorized at the 99th percentile to minimize the effects of outliers) increases by 173,558.24 kip (\$23.56) for RMG households, over 40% greater than waitlist household income. We note that the value of the increase is only about 20% less than the amount of the payment to the RMG groups. This is notable within the PWP literature because other income generation is often displaced (Bertrand et al., 2017). Lee's bounds estimates adjusting for attrition confirm positive outcomes (results not shown).

6.2. GBV

We examine four types of IPV (controlling behavior, emotional violence, physical violence, and sexual violence), two types of non-IPV domestic violence (physical and sexual violence by household members other than intimate partner) and two types of GBV outside the home (physical and sexual). The single deviation from our pre-analysis plan regarding these outcomes is that we had initially grouped together the

non-IPV domestic violence into a single category. However, we decided to change this structure to improve parallelism with the other outcomes.

As described in our pre-analysis plan, we constructed indicators of controlling behavior, emotional violence, physical violence and sexual violence as dummy variables, equal to 1 if any question about exposure to the specific type of violence in that category during the previous 12 months received an affirmative response. This structure of outcome measure is used worldwide (UN Department of Economic and Social Affairs Statistical Office 2014). The indicators of physical or sexual violence by a household member were each generated by a single question. The indicators of physical or sexual violence by a non-household member included responses to questions regarding violence from any of the following individuals: friend or family, authority, random stranger, and other. If any question was answered within the set of questions comprising the index, we included that woman in the analysis. However, if she did not answer any of the questions within the category, we considered this a non-response and did not include her in the analysis of that particular index.

Summary statistics from the “non-empowered” control group indicate that just under one half of women reported experiencing controlling behavior by their spouse, just under one third reported emotional and physical violence, and just under one fifth reported sexual violence (Table 3). These levels of IPV are significantly higher than those reported in the Lao National Survey on Women’s Health and Life Experiences, where 10%, 4% and 3.1% of respondents reported exposure to emotional violence, physical and sexual violence respectively in the last 12 months prior to the interview. Our data exceeds these rates by a factor of seven for physical violence, a factor of six for sexual violence, and by a factor of 3 for emotional violence. There are several possibilities that explain this discrepancy. Firstly, these poor, rural women may have a higher experience of violence than the national average. Secondly, and, perhaps, most importantly, more women may have felt comfortable revealing their experience of violence using our ACASI interviewing technique rather than the in-person approach used in the national survey.

Summary statistics on non-IPV GBV also indicate higher levels than reported on the national survey. Between 7% and 12% of respondents reported having experienced physical or sexual violence, either inside the home with a non-partner or from someone outside the home (Table 3). These numbers are at least twice as high as the national prevalence rates reported in the Lao National Survey on Women’s Health and Life Experiences, for physical and sexual violence from a non-partner: at 5.1% and 5.3%, respectively.¹¹

We note that due to the sensitive nature of these questions, non-response is high, as is typical for surveys on IPV (UN Department of Economic and Social Affairs Statistical Office 2014). For our IPV variables, non-response reached over 40% for some of the questions regarding controlling behavior, while the non-

¹¹ The Lao National Survey on Women’s Health and Life Experiences does not collect data on exposure to non-partner physical and sexual violence over the last 12 months.

response rate was as low as 16% for some less conceptual questions on IPV. For the non-partner violence, non-response ranged from 13-21%. For each question, we tested whether non-response was balanced across RMG participants and waitlist women (Table 3) and did not find any significant differences. When analyzing the data, we drop observations only if all responses in a category of violence (e.g. emotional IPV) are missing.

The main results show that none of the impacts of the program on violence — either IPV or non-IPV GBV — significantly differed from zero (Tables 4 and 5). We employed a variety of robustness checks that were not included in the pre-analysis plan. We first consider a different index construction: the percentage of affirmative responses in each category. For each woman, we calculate the percentage of affirmative responses, excluding questions in the category for which she did not respond. Results are very similar to our main specification (Tables A2 and A3). We also examined each question individually, reweighting the sample with inverse probability weights (Tables A4-A9). We find one significant result for controlling behaviors: the likelihood that a husband needs to know where the woman is increases due to RMG participation, and for sexual violence: the likelihood of being threatened into sexual acts increases due to participation in the program (Tables A4-A9). However, these are two indicators out of 30, which may happen by chance. We also considered a variation in combining the response to individual questions within categories using the index proposed by Kling et. al (2007) to account for correlation between the responses (Tables A10 and A11). Results from this specification do not reject the hypothesis that the PWP program had no impact on women’s experience of violence, although the confidence intervals are wider. We grouped the outcomes of each type (IPV & non-IPV GBV) into two indices indicating “ever experienced” for each type, but this specification also had null results (Table A12). Also yielding null results, for the IPV outcomes we considered the smaller subsample of partnered women and controlled for their partner’s characteristics (partner participates in the labor force, has ever attended school, and age).¹²

In addition to the attrition concerns mentioned earlier, we note that a number of women declined to answer (see summary statistics table 3). In our main results we dropped observations when all responses in a category of violence, such as physical or emotional IPV were missing. We also apply Lee’s bounds to determine the range of possible estimates from the missing responses being either all yes or all no. For each individual question, we imputed missing responses to be all affirmative in the treatment group and all negative in the control group. The resulting index yielded the upper bound. We did the reverse to calculate the lower bound. Among IPV variables, the upper bound for controlling behavior is significant, as is exposure to sexual violence in the household by a non-partner (Tables A13 and A14). When we apply Kling & Liebman bounds, statistically significant results for the upper bounds suggest that IPV increases;

¹² Available upon request.

however, only controlling behavior has a lower bound that is also positive; the bounds of the other IPV variables include zero (Table A15). The upper and lower bounds for the GBV estimates are all significant, but they also include zero (Table A16). Overall, the results from the bounding exercises using extreme assumptions regarding non-response do not generate strong evidence that calls into question conclusion of our core specification.

Our pre-analysis plan included heterogeneity analyses along several dimensions that have been linked to women's status in the home and labor opportunities: ethnicity, income, age, education, education relative to the spouse's, empowerment index, household decision making, and social contact. We only found one significant result (the most educated women who participated experienced less non-IPV GBV) that did not stand up to multiple hypothesis testing when examining the two outcomes ever-IPV and ever non-IPV GBV (results available upon request).

7. Conclusion

PWPs, like cash transfer programs, are an important tool in creating social protection and increasing the well-being of vulnerable populations that are typically poorer and have less access to the traditional labor market. Unlike cash-transfer programs, public work programs require participants to be employed, often in labor intensive jobs, in order to receive a transfer. This requirement may challenge gender norms. While a consensus has emerged that cash transfers are likely to reduce IPV, at least on average (Buller et al., 2019), there is a concern that PWPs may have unintended negative consequences on the incidence of GBV both inside and outside the home. To the best of our knowledge, we are the first to investigate the causal relationship of PWPs that target women, and GBV (both IPV, domestic violence and GBV outside the household). The randomized control trial design of the Lao PDR Road Management Group program confirms that treatment increases women's employment in wage work and their earnings. We do not find that participation in the program changes their exposure to GBV.

There are a variety of possible explanations for the lack of impact on GBV with respect to specific program components. First, though women were bringing in more income, the PWP wage was lower than the male wage. Thus, men may not have felt like their economic power was being challenged. GBV may not have increased because the work was done in groups of women; harassment is easier if there are no bystanders. Additionally, men were not part of the work groups, so harassment from co-workers was not a possibility. The communities may be very aware of the benefits of the roads, which were only recently improved; this social commitment to maintaining a public good may also have protected the women. Although our findings are reassuring, future PWPs should still analyze how their program design may influence gender divisions both inside and outside the home before and after implementation.

Our results are reassuring for those concerned with the potential negative effects of PWPs on GBV: we do not find evidence that participation in PWPs may endanger women through increased risk of violence either from their partners and other household members, or the public at large in the position of authority. On the other hand, unlike in the literature on cash transfers, we did not find that PWPs lowered IPV. Considering evidence that add-on interventions to cash transfer programs, such as behavioral change components, are likely to improve their potential to lower GBV (Roy et al., 2017), policy makers may consider integrating additional components into the design of future PWP programs.

References

- Aizer, Anna. 2010. "The Gender Wage Gap and Domestic Violence." *The American Economic Review* 100 (4): 1847–59. <https://doi.org/10.1257/aer.100.4.1847>.
- Akerlof, George A., and Rachel E. Kranton. 2000. "Economics and Identity." *The Quarterly Journal of Economics* 115 (3): 715–53. <https://doi.org/10.1162/003355300554881>.
- Amaral, Sofia. 2019. "Do Improved Property Rights Decrease Violence against Women? Evidence from India." manuscript.
- Amaral, Sofia, Siddhartha Bandyopadhyay, and Rudra Sensarma. 2015. "Employment Programmes for the Poor and Female Empowerment: The Effect of NREGS on Gender-Based Violence in India." *Journal of Interdisciplinary Economics* 27 (2): 199–218. <https://doi.org/10.1177/0260107915582295>.
- Amarante, Verónica, and Martin Brun. 2018. "Cash Transfers in Latin America: Effects on Poverty and Redistribution." *Economia* 19 (1): 1–31.
- Bloch, F., and V. Rao. 2002. "Terror as a Bargaining Instrument: A Case Study of Dowry Violence in Rural India." *American Economic Review* 92 (4): 1029–43.
- Bobonis, Gustavo J., Melissa González-Brenes, and Roberto Castro. 2013. "Public Transfers and Domestic Violence: The Roles of Private Information and Spousal Control." *American Economic Journal: Economic Policy* 5 (1): 179–205. <https://doi.org/10.2307/23358341>.
- Buller, Ana Maria, Amber Peterman, Meghna Ranganathan, Alexandra Bleile, Melissa Hidrobo, and Lori Heise. 2018. "A Mixed-Method Review of Cash Transfers and Intimate Partner Violence in Low- and Middle-Income Countries." *The World Bank Research Observer* 33 (2): 218–58. <https://doi.org/10.1093/wbro/lky002>.
- Bulte, Erwin, and Robert Lensink. 2019. "Women's Empowerment and Domestic Abuse: Experimental Evidence from Vietnam." *European Economic Review* 115 (C): 172–91.
- Chin, Yoo-Mi. 2012. "Male Backlash, Bargaining, or Exposure Reduction?: Women's Working Status and Physical Spousal Violence in India." *Journal of Population Economics* 25 (1): 175–200. <https://doi.org/10.1007/s00148-011-0382-8>.
- Corradi, Consuelo, Chaime Marcuello-Servós, Santiago Boira, and Shalva Weil. 2016. "Theories of Femicide and Their Significance for Social Research." *Current Sociology* 64 (7): 975–95. <https://doi.org/10.1177/0011392115622256>.
- Cullen, Claire. 2020. "Method Matters: Underreporting of Intimate Partner Violence in Nigeria and Rwanda." SSRN Scholarly Paper ID 3624515. Rochester, NY: Social Science Research Network. <https://papers.ssrn.com/abstract=3624515>.
- Davila, Manuel Alejandro Estefan. 2019. "Essays in Development Economics." *Doctoral Thesis, UCL (University College London)*. Doctoral, University College London. <https://discovery.ucl.ac.uk/id/eprint/10076088/>.
- Dervisevic, Ervin, Seth Garz, Aneesh Mannava, and Elizaveta Perova. 2020. *In Light of What They Know: How Do Local Leaders Make Targeting Decisions?* Policy Research Working Papers. The World Bank. <https://doi.org/10.1596/1813-9450-9465>.
- East Asia & Pacific Gender Innovation Lab. 2020. "Impact Evaluation of Laos Road Maintenance Groups Program." The World Bank.
- Kling, Jeffrey R., Jeffrey B. Liebman, and Lawrence F. Katz. 2007. "Experimental Analysis of Neighborhood Effects." *Econometrica* 75 (1): 83–119. <https://doi.org/10.1111/j.1468-0262.2007.00733.x>.

Kotsadam, Andreas, and Espen Villanger. 2020. "Jobs and Intimate Partner Violence - Evidence from a Field Experiment in Ethiopia." SSRN Scholarly Paper ID 3541457. Rochester, NY: Social Science Research Network. <https://papers.ssrn.com/abstract=3541457>.

Macmillan, Ross, and Rosemary Gartner. 1999. "When She Brings Home the Bacon: Labor-Force Participation and the Risk of Spousal Violence against Women." *Journal of Marriage and Family* 61 (4): 947–58. <https://doi.org/10.2307/354015>.

Manser, Marilyn, and Murray Brown. 1980. "Marriage and Household Decision-Making: A Bargaining Analysis." *International Economic Review* 21 (1): 31–44. <https://doi.org/10.2307/2526238>.

Pillinger, Jane. 2017. "Violence and Harassment against Women and Men in the World of Work." International Labour Organization.

Roy, Shalini, Melissa Hidrobo, John Hoddinott, Bastien Koch, and Akhter Ahmed. 2019. *Can Transfers and Behavior Change Communication Reduce Intimate Partner Violence Four Years Post-Program? Experimental Evidence from Bangladesh*. International Food Policy Research Institute. <https://doi.org/10.2499/p15738coll2.133421>.

UN Department of Economic and Social Affairs Statistical Office. 2014. *Guidelines for Producing Statistics on Violence Against Women: Statistical Surveys*. United Nations.

Table 1 - Attrition

	Attrition (Lottery -> Baseline)		Attrition (Baseline -> Endline)	
RMG	-0.013	(0.048)	0.245	(0.161)
Age	-0.001	(0.001)	-0.001*	(0.001)
Poverty Ranking	-0.006	(0.007)		
RMG x Age	0.001	(0.001)	-0.000	(0.001)
RMG x Poverty Ranking	-0.009	(0.014)		
Married			-0.048**	(0.021)
Ever Attended School			0.017	(0.015)
Ethnicity: Mon-Khmer			0.050**	(0.020)
Ethnicity: Tibeto-Burman			0.013	(0.040)
Ethnicity: Hmong-Mien & Other			0.094***	(0.035)
Household Size			-0.002	(0.003)
Sqm of residential land			-0.000	(0.000)
House has brick wall			0.028	(0.033)
House has solid floor			-0.010	(0.027)
Number of rooms in house			0.002	(0.007)
House has piped water			-0.053***	(0.019)
House has toilet			0.017	(0.017)
House has outdoor roofed kitchen			-0.009	(0.015)
House has electricity			-0.033*	(0.019)
Number of cell phones in HH			0.007	(0.006)
HH owns a vehicle			-0.061	(0.047)
HH owns a motorcycle			-0.015	(0.017)
HH owns a refrigerator/freezer			0.004	(0.031)
HH owns a steam rice cooker			0.005	(0.033)
HH owns an electric rice cooker			0.079	(0.102)
HH owns a tractor			-0.022	(0.020)
HH owns a rice mill			0.025	(0.017)
HH owns a TV			0.008	(0.018)

Table continues in next page

	Attrition (Lottery -> Baseline)	Attrition (Baseline -> Endline)
<i>Table continues from previous page</i>		
RMG x Married		0.100** (0.042)
RMG x Ever Attended School		-0.013 (0.029)
RMG x Ethnicity: Mon-Khmer		-0.052 (0.037)
RMG x Ethnicity: Tibeto-Burman		-0.031 (0.069)
RMG x Ethnicity: Hmong-Mien & Other		-0.100 (0.062)
RMG x Household Size		-0.006 (0.005)
RMG x Sqm of residential land		0.000 (0.000)
RMG x House has brick wall		-0.047 (0.059)
RMG x House has solid floor		0.010 (0.049)
RMG x Number of rooms in house		0.016 (0.014)
RMG x House has piped water		-0.008 (0.037)
RMG x House has toilet		-0.013 (0.032)
RMG x House has outdoor roofed kitchen		0.027 (0.028)
RMG x House has electricity		-0.002 (0.037)
RMG x Number of cell phones in HH		-0.004 (0.012)
RMG x HH owns a vehicle		0.101 (0.087)
RMG x HH owns a motorcycle		-0.014 (0.031)
RMG x HH owns a refrigerator/freezer		-0.019 (0.056)
RMG x HH owns a steam rice cooker		-0.008 (0.062)
RMG x HH owns an electric rice cooker		-0.268* (0.139)
RMG x HH owns a tractor		-0.022 (0.037)
RMG x HH owns a rice mill		-0.018 (0.034)
RMG x HH owns a TV		-0.003 (0.033)
Constant	0.069*** (0.026)	0.041 (0.109)
Adj R-sq	0.001	0.018
p-val. (RMG)	0.788	0.128
F-stat (controls)	0.834	1.945
p-val.	0.435	0.004***
F-stat (interaction)	0.358	0.880
p-val.	0.699	0.631
N	1182	1146

Table 2 - The effect of treatment on women's labor market activities

ITT (OLS)

	Regular earner	Average Regular Income, monthly (HN), Winsor
RMG	0.774*** (0.023)	173,558.246*** (7392.307)
Control Group Mean	0.050	16,249.033
N (Obs.)	1,099	1,099
Adj R-sq	0.634	0.350
p-val	0.000	0.000

ToT (2SLS)

	Regular earner	Average Regular Income, monthly (HN), Winsor
RMG	0.807*** (0.022)	181,147.937*** (7384.186)
Control Group Mean	0.048	16,859.697
N (Obs.)	1,099	1,099
Adj R-sq	0.676	0.374
p-val	0.000	0.000

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. Outcomes are (1) binary indicator of whether she is a regular earner, and (2) her average regular monthly income in Laotian Kip. USD 1 = LAK 9,350 at time of writing. * $p < 0.1$, ** $p < .05$, *** $p < 0.01$.

Table 3 - Summary Statistics for Gender-Based Violence, exposure in the last 12 months

Type of Intimate Partner Violence	Control				Treatment				Difference in Non-response	
	Yes (%)	No (%)	No Resp. (%)	N (Obs.)	Yes (%)	No (%)	No Resp. (%)	N (Obs.)	Diff.	p-val.
EXPOSURE TO CONTROLLING BEHAVIOR	49.29	46.05	4.66	708	54.64	39.52	5.84	291	-1.181	0.437
Ever experienced jealousy	18.22	49.01	32.77	708	20.62	47.42	31.96	291	0.810	0.804
Ever accused of unfaithfulness	14.12	51.41	34.46	708	16.49	50.17	33.33	291	1.130	0.732
Ever socialisation restricted	19.63	48.59	31.78	708	19.93	43.30	36.77	291	-4.990	0.128
Ever family contact restricted	14.69	42.94	42.37	708	14.43	39.52	46.05	291	-3.675	0.287
Ever husband must know location	23.16	38.98	37.85	708	26.46	31.27	42.27	291	-4.415	0.194
Ever household spending restricted	14.69	42.51	42.80	708	13.40	41.92	44.67	291	-1.877	0.587
Ever not trusted with money	20.06	50.71	29.24	708	21.65	44.67	33.68	291	-4.440	0.167
EXPOSURE TO EMOTIONAL VIOLENCE	32.06	60.73	7.20	708	31.62	60.82	7.56	291	-0.357	0.844
Ever publicly embarrassed	17.66	62.85	19.49	708	20.27	57.73	21.99	291	-2.502	0.372
Ever threatened	17.80	60.45	21.75	708	19.59	58.08	22.34	291	-0.585	0.839
Ever insulted/degraded	21.75	59.32	18.93	708	19.93	58.08	21.99	291	-3.067	0.270
EXPOSURE TO PHYSICAL VIOLENCE	31.78	65.11	3.11	708	33.33	62.20	4.47	291	-1.360	0.289
Ever pushed/shaken	17.23	63.70	19.07	708	20.27	62.89	16.84	291	2.229	0.409
Ever slapped	14.41	63.84	21.75	708	17.18	60.48	22.34	291	-0.585	0.839
Ever arm twisted/hair pulled	12.71	65.68	21.61	708	13.75	70.10	16.15	291	5.459	0.050
Ever punched/hit	14.41	68.22	17.37	708	15.46	63.23	21.31	291	-3.933	0.146
Ever kicked/beaten	13.14	69.07	17.80	708	16.15	64.60	19.24	291	-1.447	0.591
Ever choked/burned	11.86	71.33	16.81	708	12.37	71.13	16.49	291	0.313	0.904
Ever threatened with weapon	11.44	71.89	16.67	708	13.40	70.45	16.15	291	0.515	0.842
EXPOSURE TO SEXUAL VIOLENCE	19.35	72.60	8.05	708	23.37	70.45	6.19	291	1.865	0.310
Ever forced sex	12.15	67.66	20.20	708	12.71	71.13	16.15	291	4.047	0.139
Ever forced non-sex sexual acts	10.88	68.36	20.76	708	13.40	64.95	21.65	291	-0.887	0.755
Ever threatened into sex	10.45	70.20	19.35	708	16.49	67.01	16.49	291	2.855	0.292

Type of Non-Intimate Partner Violence	Control				Treatment				Difference in Non-response	
	Yes (%)	No (%)	No Resp. (%)	N (Obs.)	Yes (%)	No (%)	No Resp. (%)	N (Obs.)	Diff.	p-val.
PHYSICAL VIOLENCE BY OTHER HH MEMBER	10.14	69.86	20.00	720	8.67	70.67	20.67	300	-0.667	0.809
EXPOSURE TO PHYSICAL VIOLENCE, OUTSIDE HH	12.50	69.03	18.47	720	11.33	69.00	19.67	300	-1.194	0.657
Physical violence by friend/family	8.47	72.22	19.31	720	7.67	71.67	20.67	300	-1.361	0.619
Physical violence by authority	9.17	71.25	19.58	720	7.33	71.67	21.00	300	-1.417	0.607
Physical violence by random stranger	8.33	71.39	20.28	720	8.67	70.33	21.00	300	-0.722	0.795
Physical violence by other type of individual	8.19	71.94	19.86	720	8.67	71.00	20.33	300	-0.472	0.864
FORCED SEX BY OTHER HH MEMBER	7.64	75.00	17.36	720	8.67	76.67	14.67	300	2.694	0.292
EXPOSURE TO SEXUAL VIOLENCE, OUTSIDE HH	12.36	71.67	15.97	720	13.00	73.67	13.33	300	2.639	0.285
Forced sex by friend/family	8.47	74.03	17.50	720	9.00	75.33	15.67	300	1.833	0.478
Forced sex by authority	9.31	73.47	17.22	720	9.00	76.33	14.67	300	2.556	0.317
Forced sex by random stranger	8.06	74.58	17.36	720	8.33	76.00	15.67	300	1.694	0.511
Forced sex by other type of individual	8.06	74.58	17.36	720	8.00	76.33	15.67	300	1.694	0.511

Table 4 - Effect of treatment on GBV: IPV in the past 12 months

ITT (OLS)

	Exposure to Controlling Behavior	Exposure to Emotional Violence	Exposure to Physical Violence	Exposure to Sexual Violence
RMG	0.057 (0.036)	-0.000 (0.035)	0.020 (0.033)	0.033 (0.030)
Control Group Mean	0.517	0.346	0.328	0.210
N (Obs.)	949	926	964	924
Adj R-sq	0.006	-0.003	0.038	0.039
p-val	0.111	0.991	0.551	0.285

ToT (2SLS)

	Exposure to Controlling Behavior	Exposure to Emotional Violence	Exposure to Physical Violence	Exposure to Sexual Violence
RMG	0.057 (0.036)	-0.000 (0.034)	0.020 (0.033)	0.033 (0.030)
Control Group Mean	0.521	0.343	0.324	0.211
N (Obs.)	949	926	964	924
Adj R-sq	0.006	-0.003	0.038	0.039
p-val	0.109	0.991	0.549	0.282

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are binary outcomes where the outcome equals 1 if she has experienced this type of violence in the past 12 months. * $p < 0.1$, ** $p < .05$, *** $p < 0.01$.

Table 5 - Effect of treatment on GBV: Non-IPV GBV in the past 12 months

ITT (OLS)

	Exposure to Phys. Violence, in HH non partner	Exposure to Sexual Violence, in HH non partner	Exposure to Phys. Violence, outside HH	Exposure to Sexual Violence, outside HH
RMG	-0.016 (0.024)	0.007 (0.022)	-0.012 (0.027)	-0.003 (0.026)
Control Group Mean	0.124	0.091	0.153	0.147
N (Obs.)	828	865	828	865
Adj R-sq	0.025	0.023	0.058	0.051
p-val	0.508	0.737	0.644	0.896

ToT (2SLS)

	Exposure to Phys. Violence, in HH non partner	Exposure to Sexual Violence, in HH non partner	Exposure to Phys. Violence, outside HH	Exposure to Sexual Violence, outside HH
RMG	-0.016 (0.024)	0.007 (0.022)	-0.012 (0.026)	-0.003 (0.026)
Control Group Mean	0.122	0.094	0.151	0.149
N (Obs.)	828	865	828	865
Adj R-sq	0.025	0.023	0.058	0.051
p-val	0.506	0.736	0.641	0.895

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are binary outcomes where the outcome equals 1 if she has experienced this type of violence in the past 12 months. * $p < 0.1$, ** $p < .05$, *** $p < 0.01$.

Appendix

Table A1 - Baseline characteristics by treatment status

	Mean (Control)	Mean (Treated)	Difference	p-val
Age	33.256	32.718	0.538	0.432
Married (Dummy)	0.868	0.889	-0.021	0.342
Ever attended school (Dummy)	0.590	0.553	0.038	0.239
Education level: None	0.410	0.447	-0.038	0.239
Education level: Primary & lower	0.476	0.438	0.038	0.247
Education level: Lower Secondary	0.102	0.093	0.009	0.644
Education level: Upper Secondary +	0.012	0.021	-0.009	0.268
Ethnicity: Lao-Tai	0.225	0.222	0.003	0.916
Ethnicity: Mon-Khmer	0.662	0.619	0.043	0.165
Ethnicity: Tibeto-Burman	0.044	0.057	-0.013	0.359
Ethnicity: Hmong-Mien & Other	0.069	0.102	-0.033	0.058*
Household Size	5.846	6.282	-0.436	0.029**
Sqm of residential land	231.634	256.694	-25.060	0.107
House has brick wall	0.129	0.129	0.000	0.999
House has solid floor	0.196	0.192	0.003	0.896
Number of rooms in house	1.913	1.928	-0.015	0.833
House has piped water	0.180	0.162	0.017	0.481
House has toilet	0.416	0.420	-0.005	0.884
House has outdoor roofed kitchen	0.486	0.444	0.041	0.203
House has electricity	0.795	0.826	-0.031	0.227
Number of cell phones in HH	1.386	1.483	-0.097	0.284
HH owns a vehicle	0.023	0.027	-0.004	0.716
HH owns a motorcycle	0.588	0.607	-0.019	0.560
HH owns a refrigerator/freezer	0.077	0.087	-0.010	0.588
HH owns a steam rice cooker	0.062	0.054	0.007	0.628
HH owns an electric rice cooker	0.995	0.985	0.010	0.079*
HH owns a tractor	0.231	0.231	0.000	1.000
HH owns a rice mill	0.276	0.279	-0.004	0.897
HH owns a TV	0.326	0.297	0.029	0.345
N (Obs.)	813	333		

Table A2 - Percent of positive responses in each category of GBV: IPV**ITT (OLS)**

	Pct Positive Response to Controlling Behavior	Pct Positive Response to Emotional Violence	Pct Positive Response to Physical Violence	Pct Positive Response to Sexual Violence
RMG	0.017 (0.024)	0.015 (0.026)	0.022 (0.022)	0.022 (0.023)
Control Group Mean	0.261	0.223	0.163	0.139
N (Obs.)	949	926	964	924
Adj R-sq	0.008	0.007	0.033	0.039
p-val	0.462	0.573	0.333	0.334
Bonferroni ($\alpha = .05$)	0.013	0.013	0.013	0.013

ToT (2SLS)

	Pct Positive Response to Controlling Behavior	Pct Positive Response to Emotional Violence	Pct Positive Response to Physical Violence	Pct Positive Response to Sexual Violence
RMG	0.017 (0.024)	0.015 (0.026)	0.022 (0.022)	0.022 (0.022)
Control Group Mean	0.259	0.219	0.161	0.140
N (Obs.)	949	926	964	924
Adj R-sq	0.008	0.007	0.033	0.039
p-val	0.459	0.571	0.330	0.331
Bonferroni ($\alpha = .05$)	0.013	0.013	0.013	0.013

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are the proportion of questions she answered affirmatively to in the category. * $p < 0.1$, ** $p < .05$, *** $p < 0.01$.

Table A3 - Percent of positive responses in each category of GBV: Non-IPV GBV

ITT (OLS)

	Pct Positive Response to Physical Violence, in HH non partner	Pct Positive Response to Physical Violence, outside HH	Pct Positive Response to Sexual Violence, in HH non partner	Pct Positive Response to Sexual Violence, outside HH
RMG	-0.016 (0.024)	-0.003 (0.008)	0.007 (0.022)	0.004 (0.009)
Control Group Mean	0.124	0.043	0.091	0.042
N (Obs.)	828	827	865	865
Adj R-sq	0.025	0.056	0.023	0.044
p-val	0.508	0.750	0.737	0.645
Bonferroni ($\alpha = .05$)	0.013	0.013	0.013	0.013

ToT (2SLS)

	Pct Positive Response to Physical Violence, in HH non partner	Pct Positive Response to Physical Violence, outside HH	Pct Positive Response to Sexual Violence, in HH non partner	Pct Positive Response to Sexual Violence, outside HH
RMG	-0.016 (0.024)	-0.003 (0.008)	0.007 (0.022)	0.004 (0.009)
Control Group Mean	0.122	0.042	0.094	0.042
N (Obs.)	828	827	865	865
Adj R-sq	0.025	0.056	0.023	0.044
p-val	0.506	0.749	0.736	0.643
Bonferroni ($\alpha = .05$)	0.013	0.013	0.013	0.013

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are the proportion of questions she answered affirmatively to in the category. * $p < 0.1$, ** $p < .05$, *** $p < 0.01$.

Table A4 - Individual outcomes: Controlling Behavior

ITT (OLS)

	Ever experienced jealousy	Ever accused of unfaithfulness	Ever socialization restricted	Ever family contact restricted	Ever husband must know location	Ever household spending restricted	Ever not trusted with money
RMG	0.029 (0.039)	0.026 (0.036)	0.016 (0.041)	-0.004 (0.042)	0.087* (0.045)	-0.018 (0.041)	0.038 (0.039)
Control Group Mean	0.271	0.216	0.288	0.255	0.373	0.257	0.283
N (Obs.)	674	658	667	565	608	566	694
Adj R-sq	0.010	0.014	0.016	0.025	0.019	0.018	0.016
p-val	0.459	0.481	0.688	0.914	0.057	0.656	0.325

ToT (2SLS)

	Ever experienced jealousy	Ever accused of unfaithfulness	Ever socialization restricted	Ever family contact restricted	Ever husband must know location	Ever household spending restricted	Ever not trusted with money
RMG	0.029 (0.038)	0.026 (0.036)	0.016 (0.040)	-0.004 (0.041)	0.087* (0.045)	-0.018 (0.040)	0.038 (0.039)
Control Group Mean	0.268	0.211	0.284	0.253	0.369	0.251	0.281
N (Obs.)	674	658	667	565	608	566	694
Adj R-sq	0.010	0.014	0.016	0.025	0.019	0.018	0.016
p-val	0.456	0.477	0.685	0.914	0.054	0.653	0.322

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are binary indicators equal to 1 if she has experienced the individual type of GBV in the past 12 months. * $p < 0.1$, ** $p < .05$, *** $p < 0.01$

Table A5 - Individual outcomes: Emotional Violence

ITT (OLS)

	Ever publicly embarrassed	Ever threatened	Ever insulted/degraded
RMG	0.039 (0.035)	0.024 (0.034)	-0.007 (0.035)
Control Group Mean	0.219	0.227	0.268
N (Obs.)	797	780	801
Adj R-sq	0.016	0.008	0.010
p-val	0.264	0.475	0.848

ToT (2SLS)

	Ever publicly embarrassed	Ever threatened	Ever insulted/degraded
RMG	0.039 (0.034)	0.024 (0.034)	-0.007 (0.034)
Control Group Mean	0.215	0.221	0.264
N (Obs.)	797	780	801
Adj R-sq	0.016	0.008	0.010
p-val	0.261	0.472	0.847

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are binary indicators equal to 1 if she has experienced the individual type of GBV in the past 12 months.

* $p < 0.1$, ** $p < .05$, *** $p < 0.01$

Table A6 - Individual outcomes: Physical Violence**ITT (OLS)**

	Ever pushed/shaken	Ever slapped	Ever arm twisted/hair pulled	Ever punched/hit	Ever kicked/beaten	Ever choked/burned	Ever threatened with weapon
RMG	0.033 (0.032)	0.040 (0.032)	-0.004 (0.029)	0.022 (0.031)	0.038 (0.030)	0.006 (0.027)	0.022 (0.028)
Control Group Mean	0.213	0.184	0.162	0.174	0.160	0.143	0.137
N (Obs.)	815	780	799	814	817	832	834
Adj R-sq	0.023	0.013	0.022	0.033	0.034	0.039	0.033
p-val	0.307	0.206	0.903	0.470	0.210	0.813	0.418

ToT (2SLS)

	Ever pushed/shaken	Ever slapped	Ever arm twisted/hair pulled	Ever punched/hit	Ever kicked/beaten	Ever choked/burned	Ever threatened with weapon
RMG	0.033 (0.032)	0.040 (0.032)	-0.004 (0.029)	0.022 (0.030)	0.038 (0.030)	0.006 (0.027)	0.022 (0.027)
Control Group Mean	0.211	0.186	0.160	0.170	0.156	0.141	0.140
N (Obs.)	815	780	799	814	817	832	834
Adj R-sq	0.023	0.013	0.022	0.033	0.034	0.039	0.033
p-val	0.304	0.203	0.903	0.467	0.207	0.812	0.415

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are binary indicators equal to 1 if she has experienced the individual type of GBV in the past 12 months. * $p < 0.1$, ** $p < .05$, *** $p < 0.01$

Table A7 - Individual outcomes: Sexual Violence

ITT (OLS)

	Forced sexual intercourse	Forced other sexual acts	Ever threatened into sex
RMG	-0.007 (0.028)	0.029 (0.029)	0.061** (0.029)
Control Group Mean	0.152	0.137	0.130
N (Obs.)	809	789	814
Adj R-sq	0.031	0.022	0.045
p-val	0.794	0.322	0.036

ToT (2SLS)

	Forced sexual intercourse	Ever other sexual acts	Ever threatened into sex
RMG	-0.007 (0.028)	0.029 (0.029)	0.061** (0.029)
Control Group Mean	0.151	0.138	0.134
N (Obs.)	809	789	814
Adj R-sq	0.031	0.022	0.045
p-val	0.793	0.319	0.035

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are binary indicators equal to 1 if she has experienced the individual type of GBV in the past 12 months.

* $p < 0.1$, ** $p < .05$, *** $p < 0.01$

Table A8 - Individual outcomes: Non-IPV Physical Violence

ITT (OLS)

	Physical violence by other HH member	Physical violence by friend/family	Physical violence by authority	Physical violence by random stranger	Physical violence by other type of individual
RMG	-0.017 (0.024)	-0.009 (0.023)	-0.023 (0.023)	0.007 (0.024)	0.006 (0.023)
Control Group Mean	0.127	0.105	0.114	0.105	0.102
N (Obs.)	814	819	816	811	816
Adj R-sq	0.028	0.027	0.032	0.034	0.035
p-val	0.476	0.699	0.321	0.781	0.789

ToT (2SLS)

	Physical violence by other HH member	Physical violence by friend/family	Physical violence by authority	Physical violence by random stranger	Physical violence by other type of individual
RMG	-0.017 (0.024)	-0.009 (0.023)	-0.023 (0.023)	0.007 (0.024)	0.006 (0.023)
Control Group Mean	0.124	0.103	0.112	0.104	0.100
N (Obs.)	814	819	816	811	816
Adj R-sq	0.028	0.027	0.032	0.034	0.035
p-val	0.473	0.698	0.318	0.780	0.787

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-lumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are binary indicators equal to 1 if she has experienced the individual type of GBV in the past 12 months. * $p < 0.1$, ** $p < .05$, *** $p < 0.01$

Table A9 - Individual outcomes: Non-IPV Sexual Violence**ITT (OLS)**

	Forced sex by other HH member	Forced sex by friend/family	Forced sex by authority	Forced sex by random stranger	Forced sex by other type of individual
RMG	0.008 (0.022)	-0.002 (0.023)	-0.013 (0.023)	-0.004 (0.023)	-0.006 (0.022)
Control Group Mean	0.092	0.103	0.112	0.097	0.097
N (Obs.)	851	847	852	848	848
Adj R-sq	0.025	0.034	0.042	0.029	0.040
p-val	0.727	0.940	0.575	0.873	0.800

ToT (2SLS)

	Forced sex by other HH member	Forced sex by friend/family	Forced sex by authority	Forced sex by random stranger	Forced sex by other type of individual
RMG	0.008 (0.022)	-0.002 (0.023)	-0.013 (0.023)	-0.004 (0.022)	-0.006 (0.022)
Control Group Mean	0.096	0.103	0.113	0.102	0.096
N (Obs.)	851	847	852	848	848
Adj R-sq	0.025	0.034	0.042	0.029	0.040
p-val	0.725	0.940	0.573	0.872	0.799

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are binary indicators equal to 1 if she has experienced the individual type of GBV in the past 12 months. * $p < 0.1$, ** $p < .05$, *** $p < 0.01$

Table A10 - Effect of treatment on GBV: KKL Indexes of Exposure to IPV**ITT (OLS)**

	KKL Index of Controlling Behaviour Experience	KKL Index of Emotional Violence Experience	KKL Index of Physical Violence Experience	KKL Index of Sexual Violence Experience
RMG	0.039 (0.053)	0.037 (0.063)	0.057 (0.060)	0.065 (0.065)
Control Group Mean	-0.033	-0.029	-0.010	-0.006
N (Obs.)	949	926	964	924
Adj R-sq	0.008	0.007	0.033	0.039
p-val	0.465	0.556	0.344	0.321
Bonferroni ($\alpha = .05$)	0.013	0.013	0.013	0.013

ToT (2SLS)

	KKL Index of Controlling Behaviour Experience	KKL Index of Emotional Violence Experience	KKL Index of Physical Violence Experience	KKL Index of Sexual Violence Experience
RMG	0.039 (0.053)	0.037 (0.062)	0.057 (0.060)	0.065 (0.065)
Control Group Mean	-0.037	-0.039	-0.014	-0.003
N (Obs.)	949	926	964	924
Adj R-sq	0.008	0.007	0.033	0.039
p-val	0.462	0.553	0.341	0.318

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are indexes of the form specified by Kling, et.al. (2007) for each category of GBV in the past 12 months. * $p < 0.1$, ** $p < .05$, *** $p < 0.01$

Table A11 - Effect of treatment on GBV: KKL Indexes of Exposure to non-IPV GBV
ITT (OLS)

	KKL Index of Physical Violence, in HH non partner	KKL Index of Physical Violence, outside HH	KKL Index of Sexual Violence, in HH non partner	KKL Index of Sexual Violence, outside HH
RMG	-0.053 (0.074)	-0.006 (0.071)	0.026 (0.075)	-0.000 (0.069)
Control Group Mean	0.008	0.023	-0.014	0.016
N (Obs.)	814	827	851	865
Adj R-sq	0.028	0.042	0.025	0.048
p-val	0.476	0.930	0.727	0.998
Bonferroni ($\alpha = .05$)	0.013	0.013	0.013	0.013

ToT (2SLS)

	KKL Index of Physical Violence, in HH non partner	KKL Index of Physical Violence, outside HH	KKL Index of Sexual Violence, in HH non partner	KKL Index of Sexual Violence, outside HH
RMG	-0.053 (0.074)	-0.006 (0.071)	0.026 (0.075)	-0.000 (0.068)
Control Group Mean	-0.001	0.017	-0.003	0.018
N (Obs.)	814	827	851	865
Adj R-sq	0.028	0.042	0.025	0.048
p-val	0.473	0.930	0.725	0.998

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-lumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are indexes of the form specified by Kling, et.al. (2007) for each category of GBV. * $p < 0.1$, ** $p < .05$, *** $p < 0.01$

Table A12 - Effect of treatment on GBV: Binary indicators of exposure to any GBV and any IPV**ITT (OLS)**

	Experienced any GBV	Experienced any IPV
RMG	0.025 (0.033)	0.037 (0.033)
Control Group Mean	0.668	0.663
N (Obs.)	1,003	980
Adj R-sq	0.008	0.000
p-val	0.439	0.265

ToT (2SLS)

	Experienced any GBV	Experienced any IPV
RMG	0.025 (0.032)	0.037 (0.033)
Control Group Mean	0.671	0.668
N (Obs.)	1,003	980
Adj R-sq	0.008	0.000
p-val	0.437	0.262

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. Outcomes of interest are dummy variable, if a respondent reports to have ever experienced any GBV or any IPV. * $p < 0.1$, ** $p < .05$, *** $p < 0.01$

Table A13 - Lee bounds for Exposure to GBV: IPV

	Exposure to Controlling Behavior	Exposure to Emotional Violence	Exposure to Physical Violence	Exposure to Sexual Violence
RMG (Upper Bound)	0.059* (0.035)	0.004 (0.034)	0.037 (0.033)	0.049 (0.030)
Control Group Mean	0.516	0.340	0.314	0.195
N (Obs.)	981	963	995	950
Adj R-sq	0.006	-0.001	0.035	0.039
p-val	0.094	0.896	0.263	0.104
RMG (Lower Bound)	0.049 (0.035)	0.001 (0.034)	0.026 (0.033)	0.028 (0.030)
Control Group Mean	0.527	0.344	0.326	0.215
N (Obs.)	982	964	996	951
Adj R-sq	0.007	-0.000	0.035	0.039
p-val	0.170	0.982	0.429	0.349
Controls	Controls	Controls	Controls	Controls

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are binary outcomes where the outcome equals 1 if she has experienced this type of violence in the past 12 months, modified using the formula specified by Lee (2009). * $p < 0.1$, ** $p < .05$, *** $p < 0.01$

Table A14 - Lee bounds for Exposure to GBV: Non-IPV GBV

	Exposure to Physical Violence, in HH non partner	Exposure to Sexual Violence, in HH non partner	Exposure to Physical Violence, outside HH	Exposure to Sexual Violence, outside HH
RMG (Upper Bound)	-0.006 (0.024)	0.041** (0.021)	-0.004 (0.026)	0.030 (0.025)
Control Group Mean	0.116	0.057	0.145	0.115
N (Obs.)	863	879	863	879
Adj R-sq	0.023	0.023	0.057	0.045
p-val	0.785	0.046	0.886	0.243
RMG (Lower Bound)	-0.011 (0.024)	0.001 (0.022)	-0.008 (0.026)	-0.011 (0.026)
Control Group Mean	0.120	0.098	0.149	0.156
N (Obs.)	864	880	864	880
Adj R-sq	0.023	0.021	0.059	0.052
p-val	0.647	0.975	0.755	0.672
Controls	Controls	Controls	Controls	Controls

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are binary outcomes where the outcome equals 1 if she has experienced this type of violence in the past 12 months, modified using the formula specified by Lee (2009). * $p < 0.1$, ** $p < .05$, *** $p < 0.01$

Table A15 - Kling-Liebman bounds for Exposure to GBV (0.25 diff): IPV

	Exposure to Controlling Behavior	Exposure to Emotional Violence	Exposure to Physical Violence	Exposure to Sexual Violence
RMG (Upper Bound)	0.097*** (0.029)	0.046* (0.028)	0.066** (0.028)	0.077*** (0.025)
Control Group Mean	0.501	0.320	0.304	0.191
N (Obs.)	1,193	1,193	1,193	1,193
Adj R-sq	0.013	0.002	0.034	0.036
p-val	0.001	0.099	0.019	0.002
RMG (Lower Bound)	0.011 (0.029)	-0.044 (0.028)	-0.010 (0.028)	-0.003 (0.025)
Control Group Mean	0.543	0.365	0.341	0.231
N (Obs.)	1,193	1,193	1,193	1,193
Adj R-sq	0.001	0.003	0.030	0.033
p-val	0.702	0.114	0.726	0.919

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are binary outcomes where the outcome equals 1 if she has experienced this type of violence in the past 12 months, modified using the formula specified by Kling and Liebman (2004). * $p < 0.1$, ** $p < .05$, *** $p < 0.01$

Table A16 - Kling-Liebman bounds for Exposure to GBV (0.25 diff): Non-IPV GBV

	Exposure to Phys. Violence, in HH non partner	Exposure to Sexual Violence, in HH non partner	Exposure to Phys. Violence, outside HH	Exposure to Sexual Violence, outside HH
RMG (Upper Bound)	0.031* (0.017)	0.039** (0.017)	0.040** (0.019)	0.041** (0.020)
Control Group Mean	0.098	0.076	0.124	0.128
N (Obs.)	1,193	1,193	1,193	1,193
Adj R-sq	0.018	0.020	0.043	0.037
p-val	0.069	0.021	0.035	0.042
RMG (Lower Bound)	-0.056*** (0.017)	-0.030* (0.017)	-0.056*** (0.019)	-0.043** (0.020)
Control Group Mean	0.142	0.113	0.173	0.173
N (Obs.)	1,193	1,193	1,193	1,193
Adj R-sq	0.025	0.018	0.051	0.043
p-val	0.001	0.074	0.003	0.034

Robust standard errors in parentheses. We control for the following baseline characteristics: age, a binary indicator for married, an indicator for ever attending school, indicators for ethnicity being Lao-Tai, Mon-Khmer, Sino-Tibetan, Hmong-Iumien or other, household size and monthly household income. Data on gender-based violence was not collected at baseline so we cannot control for exposure before the RMG program. All outcomes are binary outcomes where the outcome equals 1 if she has experienced this type of violence in the past 12 months, modified using the formula specified by Kling and Liebman (2004). * $p < 0.1$, ** $p < .05$, *** $p < 0.01$