For Better or for Worse?: Education and the Prevalence of Domestic Violence in Turkey

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Abstract

Domestic violence remains an important social, economic and public health problem, particularly within developing countries. We exploit a change in compulsory schooling law in Turkey to estimate the causal effects of education on the prevalence of domestic violence. The change in the law implied that individuals born after January 1987 were obliged to complete eight years of schooling whereas those born earlier had the option of dropping out after five years. Using this discontinuity and the National Survey on Domestic Violence against Women in Turkey (2008), we adopt a Regression Discontinuity (RD) design to estimate causal effects of the reform on domestic violence. We find that the reform resulted in an increase of one to one and half years of additional schooling of women on average. This higher educational attainment resulted in improved labor market outcomes for women, including being employed, particularly in the non-agricultural sector, and having a higher personal income. In contrast, we find no evidence of a significant effect on marriage market outcomes or domestic violence attitudes. Our findings show that the effects of the reform were particularly strong for the main compliers, women who have grown up in rural areas facing constraints in accessing education. There is no evidence of a corresponding effect on women grown up in urban areas. We find that the reform had a positive effect on psychological violence and financial control behavior experienced by these women from rural areas, without any evidence of a significant impact on physical or sexual violence. We interpret these findings as evidence for instrumental theories of violence. Higher personal income earned by these women in return for their additional years of schooling created incentives for male partners to use coercive instruments to extract rents from women and regain control over household decision-making.

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1 Introduction

Domestic violence, more specifically intimate partner violence, remains an important and widespread public-health problem with adverse health and economic consequences in both developed and developing countries. In the United States, for example, the Center for Disease Control and Prevention's 2011 National Intimate Partner and Sexual Survey revealed that 22.3% of the women surveyed experienced severe physical violence by an intimate partner (CDC, 2014). The costs of domestic violence are staggering. In the U.S. alone, the total cost of domestic violence exceeds $5.8 billion annually, over $900 million of which is attributed to productivity losses (CDC, 2003). Losses in productivity are a significant, but often hidden, cost of domestic violence. Indeed, women in violent relationships are more likely to report mental health problems, suicidal thoughts and attempts, alcohol and substance abuse, abstinence from work, sexually transmitted diseases and unintended pregnancies (Campbell, 2002). Similarly, children born or raised in such households are more likely to have lower birth weights (Aizer, 2011), difficulty in relating with their peers (Carlson, 2000), delays in neuro-cognitive development (Huth-Bocks et al., 2001) and lower IQ (Koenen et al., 2003).

Empowerment of women is often thought of as a major tool in the fight against intimate partner violence. However, in reality, economic empowerment of women might have a positive or a negative impact on the prevalence of domestic violence. On the one hand, female empowerment through employment opportunities, welfare service access, income transfers, or changes in divorce laws may increase the resources available to women within the household; improve their outside options and/or bargaining status in their relationships; and decrease their exposure to violence (Farmer and Tiefenthaler, 1996; Stevenson and Wolfers, 2006; Aizer, 2010; Hidrobo and Fernald, 2013). On the other hand, an increase in available resources for women may increase the incentives of men to use violence or threats of violence in order to control these newly obtained resources or regain decision-making power within the household. As a result, women may become more vulnerable to mistreatment (Bloch and Rao, 2002; Eswaran and Malhotra, 2011; Bobonis et al., 2013).

Education is one of the most effective ways to empower women. Additional years of schooling can not only improve women's access to information and marketable skills, but also allow them to mature intellectually, change their beliefs on gender equality, learn their rights, and develop a new sense of self-worth. Moreover, more educated women are also more likely to find better employment opportunities and earn higher returns to education, which would strengthen their outside option and reduce their risk of experiencing violence. Higher levels of education can also allow women to marry a higher quality husband, who may be more educated and less prone to use violence. However, as earlier work on other empowerment channels taught us, access to resources can make women more vulnerable to violence if men use coercive acts as a way to extract resources from their partners. Our paper is the first to causally examine whether education has a positive or a negative impact on the probability of experiencing domestic violence. In particular, we assess whether an exogenous increase in years of schooling impacts a set of spousal violence indicators. Therefore we seek to shed light on the mechanisms that relate education to empowerment and violence. This is

in contrast to a large body of non-causal empirical work that documents the negative correlation between domestic violence and education (Ackerson and Subramanian, 2008; Vyas and Watts, 2009; Altinay and Arat, 2009; Eswaran and Malhotra, 2011; Anderberg et al., 2015).[1]

We study the consequences of the 1997 Compulsory Schooling Law in Turkey, which increased mandatory school attendance from five to eight years, on domestic violence and related outcomes. We use a new and recently available nationally representative survey, the National Survey on Domestic Violence against Women in Turkey (NSDVW, 2008). This survey includes detailed information on the prevalence of spousal violence, spousal controlling behavior, gender role and violence attitudes, labor market and marriage market indicators. In order to isolate the causal impact of education, we implement a regression discontinuity (RD) design, which allows us to estimate a meaningful causal treatment effect by comparing domestic violence indicators for younger individuals who were exposed to the reform and older individuals who were not exposed in the context of Turkey. Since the required age for starting junior high school in Turkey is twelve, the expansion of compulsory schooling in 1998 implied that the individuals born before January 1987 could drop out after five years whereas those born after January 1987 had to complete eight years of education (Cesur and Mocan, 2014; Dincer et al., 2014). Our identifying assumption is that these two cohorts born one month apart do not display any systematic differences other than being exposed to the compulsory schooling law or not. In our RD design, we assign treatment according to the month and year of birth of the individual, with those that are born after January 1987 assigned to the treated status.

To estimate the education effects on domestic violence measures, we begin our analysis first by testing whether the reform had a positive effect on the level of education in our sample. Our RD estimates show that the reform increased female schooling by roughly 0.9 years, junior high school completion by 19 percentage points (ppt), and high school completion by 14 ppt. In contrast, we find no evidence that the reform had a significant impact on the level of education attained by men. Moreover, we find that the reform had relatively larger effects in the sample of women who ever had a relationship, with positive effects of 1.4 years on years of schooling, 23 ppt on junior high school completion, and 19 ppt on high school completion. Our analysis is focused on the

[1]Several studies report a negative correlation between education and domestic violence. Ackerson and Subramanian (2008) find that in India the probability of intimate partner violence among women with no education were more than five times those of college-educated women, while the probability among wives of uneducated men were almost twice as those of wives of college-educated men. Vyas and Watts (2009) show that women with college education are less likely to experience domestic violence and more likely to leave their partners in case of violence in low and middle income countries. They also document that men with college education are less likely to use violence when they experience marital problems. Tang and Lai (2008) provide a review of domestic violence literature in China, and conclude that the risk of spousal abuse is positively correlated with having a low level of education (either male or female partner), having grown up in rural areas, and exhibiting tobacco or drug abuse. In Turkey, the report of the Ministry of Family and Social Policy, *Domestic Violence against Women in Turkey* (2009), shows that among women who did not complete primary school the prevalence of physical violence is 52 percent, which is more than twice the prevalence of physical violence among women with a high school degree or more (25 percent). Correlations also reveal that women without a primary school degree are almost three times more subject to sexual violence (22.2 percent) than women with a high school degree or more (8.7 percent). Yet, to this date no research has provided a causal identification of the effect of education on domestic violence in any country context.

sample of women who ever had a relationship since domestic violence outcomes are only relevant for women who ever experienced being in a relationship that could expose them to intimate partner violence. Furthermore, within this sample, we find that the reform mainly affected women who have grown up in rural areas which had previously lacked schooling infrastructure and entailed socially conservative norms towards sending girls to school. For women who grew up in rural regions, we find that the reform increased years of schooling by 1.8 years and junior high school completion by 34 ppt. We find no evidence that the reform had a significant effect on education of women grown up in urban regions, which on average had eight years of schooling attainment prior to the reform.

Second, our findings indicate that the increase in years of schooling had significant positive effects on labor market outcomes. Ten years after the implementation of the eight-year compulsory schooling reform in Turkey, relative to the sample means, women who attained a higher level of education due to the reform were 41 percent (5.7 ppt) more likely to be employed, 40 percent (5.4 ppt) more likely to work in the non-agricultural sector, 46 percent (3.2 ppt) less likely to work in irregular jobs that are either seasonal or temporary. As a result, they are 8.2 ppt more likely to have a personal income. Furthermore, we find larger RD treatment effects on these outcomes for women grown up in rural regions, and the additional positive effect of 3.6 ppt increase in the likelihood of having social security, and 7.7 ppt increase in the likelihood of working in services sector. We find no evidence of a significant RD treatment effect in urban areas. This is not surprising since the main compliers with the reform were women who have grown up in rural areas.

Third, we find no evidence that the additional schooling attainment led to a significant impact on marriage market outcomes, except household asset ownership. We find that the reform had a 10.1 ppt increase in assets owned by the household. However, this reform-induced positive impact could reflect the additional personal income earned by the female partner as a result of her increased schooling. We find no evidence of a significant treatment effect on partner's years of schooling and his probability of employment. We also find no evidence of a significant impact on woman's age at marriage or her marriage decision for our ever-married women sample. We also find no evidence that the reform had a significant effect on whether the partner has witnessed violence towards his own mother, or whether the partner experience violence in the past. These results are also insignificant for women who have grown up in rural areas, the main compliers with the reform.

Fourth, we examine whether the reform had a significant impact on gender and domestic violence attitudes. We find no evidence that the reform had a significant impact on domestic violence attitudes, including violence against women or violence against children. The absence of a significant effect on average attitudes can also be seen in a gender attitudes index, a weighted average of z-scores of all attitudes variables.

Finally, our findings reveal that the reform had a positive impact on psychological violence and financial control behavior experienced by women grown up in rural areas whereas we find no evidence that the reform had a significant effect on physical or sexual violence. Our RD estimates show that, for women grown up in rural areas, the reform had a positive effect of 19.1 ppt on

psychological violence narrowly defined (including, humiliating, insulting, and threatening), and 12.3 ppt on psychological violence broadly defined (including narrow definition and controlling behavior indicators). We also find that the reform had a positive effect of 23.5 ppt on financial control behavior, which includes taking female partner's income or refusing to give her money for household expenditures, for women grown up in rural regions.

Overall, our results show that the effects of the reform on domestic violence works through the labor market channel as opposed to changes in attitudes towards gender dynamics or improvements in partner's quality. Our findings imply that the additional reform-induced educational attainment of women who grew up in rural areas allowed them to work in non-agricultural sector and provided them with higher personal income. The positive female income generated through the labor market channel created incentives for the male partner to extract rents from the female partner by using coercive instruments, such as threats of violence, and other controlling behavior to have more influence over the decision-making process in the allocation of household resources. In particular, our finding that the male partner exerts more financial control implies that the male partner has a motivation to extract rents by either taking her income or refusing to contribute to household spending, forcing the female partner to use her own income for joint household spending.

Our work contributes to the growing literature on causal channels that impinge on the prevalence of domestic violence. One strand of this literature focuses on the heterogeneous effects of conditional cash transfer programs on domestic violence. Bobonis et al. (2013) analyze the effect of the Mexican Oportunidades program on domestic violence. They find that beneficiary women are less likely to be victims of physical violence, but are more likely to receive threats of violence. They interpret these findings using the instrumental models of violence, which predict that in the presence of asymmetric information related to husband's gains from marriage, an increase in woman's income could lead to an increase in the husband's threats of violence to extract rents from their female partners. In another evaluation of the same program, Rivera et al. (2006) find that beneficiary women do not face a distinct risk of being physically abused by their partners compared to nonbeneficiary women. In a randomized evaluation of the rural Progresa program, Angelucci (2008) finds that among households that received small transfers, alcohol-related domestic violence declined, while in household that received large transfers, the spousal abuse from husbands with particularly low levels of education increased. Our study contributes to this literature by examining the effects of a reform-induced increase in female income through the labor market channel on the incidence of intimate partner violence.

A related body of empirical work focuses on other dimensions of the intrahousehold bargaining channels that affect domestic violence. Using the exogenous changes in the labor demand for female-industries, Aizer (2010) shows that the decline in male-female wage gap reduces violence against women, and interprets these findings by using a household bargaining model which predicts that a relative improvement in female income reduces her exposure to spousal violence by increasing her bargaining power. Stevenson and Wolfers (2006) find that the adoption of unilateral divorce laws in

the United States reduced female suicide rates, incidence of domestic violence, and rates of females murdered by their partners by increasing the bargaining power of the abused partner. Our study contributes to this literature by examining different channels through which education may affect intrahousehold bargaining, including attitudes, labor market, and marriage market channels.

Last but not least, our study relates to the extended literature focusing on the causal effects of compulsory schooling laws on returns to education in the labor market (Angrist and Krueger, 1991; Oreopolous, 2006), health outcomes (Clark and Royer, 2013; Lleras-Muney, 2005), fertility behavior (McCrary and Royer, 2011; Black et al., 2008) and other outcomes. We contribute to this growing literature by examining the effects of female schooling on the prevalence of domestic violence for the first time and providing detailed evidence from a developing-country, Turkey. Related studies examining the same 1997 compulsory schooling law in Turkey as we do are Cesur and Mocan (2014) who find a negative effect on women's propensity to self-identify as religious, wear a religious head cover, and cast a vote for Islamic parties; Gulesci and Meyersson (2015) who find a negative effect on women's religiosity, a positive effect on marriage decisions, and a positive effect on household assets, which they interpret as household consumption; and Dincer et al. (2014) who find a negative effect on fertility, child mortality, and a positive effect on the use of modern contraception. While our findings are complementary to theirs, our paper differs significantly in the focus on domestic violence outcomes and the channels through which education may affect these outcomes.

The paper is organized as follows. Section 2 provides a brief description of the 1997 Compulsory Schooling Law in Turkey. Section 3 presents the data used for the analysis, the identification strategy for estimating the causal effects of education on domestic violence, and the preliminary checks for the RD analysis. Section 4 presents the results and their implications. Section 5 concludes.

2 Context and the Overview of the 1997 Compulsory Schooling Law in Turkey

Prior to 1997, the education system composed of the mandatory component of five years of primary school, and the voluntary component of three years of junior high school and three years of high school. For the voluntary component, students could choose from either secular schools or vocational schools, which also included religious (imam-hatip) schools. Hence, a student who completed primary school in five years could drop out or continue studying in religious schools. Official law required that the education is provided only in Turkish and in a co-educational way, and prohibited that a headscarf is worn in any type of school, including religious schools. In practice, however, religious schools permitted women to wear headscarf during class time. During the 1990s, political Islam began to gain substantial support from the public, which led to an Islamist party to win the 1995 national elections. This outcome exacerbated the ongoing conflict between the Islamic movement and the secular political groups that include the military and the judiciary. The latter groups strongly criticized the lack of enforcement of the law in religious schools as well as in extracurricular

religious study centers.

In 1997, the military decided to intervene with a set of decisions with the objective of preventing the spread of Islamist movement in Turkey. These decisions were announced by the National Security Council (NSC) on February 28, 1997, and came to be known as the 1997 military memorandum, or the post-modern coup, as they paved the way for the resignation of the leader of the Islamist party and the end of his coalition government. Among these decisions was the extension of compulsory schooling from five to eight years to be provided only in secular schools. In August 18, 1997 the parliament of Turkey passed Law No. 4306 that extended compulsory schooling to eight years, combining primary school and junior high school into primary education. This was referred as the Basic Education Program, and implied that students could no longer choose to attend religious junior high schools after completing five years of primary school. The religious junior high schools were shut down. Students began to receive a diploma for completing the eighth grade successfully.

The law for school starting age in Turkey implies that a child begins mandatory schooling in September of the year when he/she turns 6 years old. The 1997 compulsory schooling law made eight years of primary education mandatory, which became effective in the 1997/1998 school year. This meant that if a student had completed fifth grade in 1997, he/she could drop out. In contrast, if a student had completed fourth grade in 1997, he/she was now obliged to continue school until the eighth grade. The combination of the school-starting age law with the 1997 compulsory schooling law implied that children born before January 1987 could drop out after five years whereas those born after January 1987 had to complete eight years of education. Although there may have been cases that did not completely fit this rule due to imperfect compliance with the age of starting school or grade repetition, the official requirements was such that students born after January 1987 were more likely to comply with the new compulsory schooling law compared to the older cohorts.[2]

Referred to as a 'big bang' approach to education reform, the Basic Education Program emphasized the restoration of old schools and the construction of new schools. Thousands of new teachers were recruited and trained, and the Turkish government attempted to improve computer literacy by purchasing and distributing over 56,000 computers to rural primary schools. A standardized bus system was rolled out in 2000, and a program was established to distribute free books and meals to low-income students.

While the Basic Education Program has been criticized for failing to substantially improve the quality of education provided by public schools, the program's implementation significantly increased enrollment in primary schools. From 1997 to 2000, the net schooling ratio rose from 84.74% to 93.54%, and the number of students increased from 9,084,635 students to 10,480,721 students. The number of teachers also increased in this period, from 302,354 to 345,015. Importantly, girls' enrollment increased, and from 1995 to 2005, the ratio of girls to boys in primary and secondary

[2]As Cesur and Mocan (2014) explain in greater detail, it is important to note that Turkish students who are 72 months old by the end of a calendar year can start school in September of that year (Resmi Gazete, Number 21308). Thus, children who were born before January 1987 could start primary school in 1992 and avoid the 8-year-mandate which was was adopted on August 18, 1997, to be effective starting with the 1997-98 school year.

education rose from 90% to 97%.

3 Data and Empirical Methodology

3.1 Data

We use data from Turkey's National Survey on Domestic Violence against Women (NSDVW) 2008, a nationally representative household survey including information on the presence and intensity of domestic violence and parental history of violence, as well as other indicators of intrahousehold behavior. The survey, which was conducted among 24,048 households during the months of July and September 2008, covers data on socioeconomic indicators of households, demographics, labor market and marital histories, general health status, gender role attitudes, indicators of autonomy in decision making, indicators of the presence and intensity of domestic violence, and parental history of domestic violence. The questions on domestic violence provide detailed information on physical, sexual, and psychological violence. The survey targeted women between 15 and 59 years old, including those that were married, in a relationship (had a boyfriend or engaged), or never in a relationship. During the interview, one woman per household was randomly selected. The survey also includes questions on month and year of birth of the women, which allows us to implement a regression discontinuity approach.

Domestic violence measures include binary variables on whether the woman ever experienced physical, sexual, psychological violence, or financial control behavior from her spouse or partner. Physical violence is measured by acts of slapping or throwing an object that would hurt; pushing, shoving, or pulling hair; hitting with his fist or in a way that hurts; kicking, pulling on the ground, or beating; choking or burning; and physical violence during pregnancy. Sexual violence is measured by forced sexual acts, forced sexual relation due to the fear of what the partner would do otherwise, and humiliating sexual acts. Psychological violence is narrowly defined by acts of insulting, humiliating, and scaring or threatening. We also include a broad measure of psychological violence by adding measures of controlling behavior by the spouse, which include trying to keep her away from her friends, trying to prevent contact from her family, insisting on knowing her location, ignoring her, getting angry if she speaks to other men, being suspicious that she cheats on him, wanting his permission before she seeks healthcare, and intervening her clothes (i.e. the way she dresses up) to the narrow definition. Financial control behavior include taking income from her and refusing to give money for household spending. To capture each dimension of domestic violence, we follow Duflo et al. (2007) and Kling et al. (2007) to construct five indices by averaging the z-scores of the underlying domestic violence indicators.[3]

[3]We construct z-scores for each domestic violence variable using the mean and standard deviation of the variable, and take the simple average of z-scores to create four violence indices. For example, the physical violence index is constructed by averaging the z-scores of six underlying dummy variables indicating whether the responded was subject to the following spousal acts of violence: slapping or throwing an object that would hurt; pushing, shoving, or pulling hair; hitting with his fist or in a way that hurts; kicking, pulling on the ground, or beating; choking or

Gender role attitudes are represented by whether the respondent agrees with each of the following statements: (i) a woman should not argue with partner if she disagrees with him; (ii) a woman should be able to spend her money as she wills; (iii) men can beat their partners in certain situations; (iv) it may be necessary to beat children for discipline; (v) men should also do housework such as cooking and cleaning; (vi) men in the family are responsible for a woman's behavior; (vii) it is a woman's duty to have sexual intercourse with her husband. To aggregate information from these attitudes, we also create a gender attitudes index by averaging the z-scores of each attitudes variable.

Our data has information on the type of region each woman has lived in until the age of 12, e.g. whether it is a village, a district, or a province, from the 2008 NSDVW survey. This allows us to construct an indicator of pre-reform rural residence as the school starting age for junior high school in Turkey is 12 years old.

Table 1 presents the summary statistics on major indicators for women who ever had a relationship from the 2008 NSDVW survey. We provide summary statistics for women of ages between 16 and 26 because the estimated bandwidths in our local regression analyses fall into this range. Panel A indicates that the average years of female schooling for this age group was 8.5 years. Junior high school completion rate was roughly 63 percent, while high school completion rate was 38 percent. Around 95 percent of the women had completed primary school. Column 4 tests for differences in group means of women grown up in rural areas and women grown up in urban areas. Women grown up in rural areas had 1.8 years lower schooling, 22 percentage points lower junior high school completion, and 23 percentage points lower high school completion. This corresponds to 21 percent lower years of schooling, 34 percent lower junior high school completion, and 61 percent lower high school completion relative to the sample mean.

In Panel B of Table 1, we report descriptive statistics for labor market outcomes, which are important mechanisms through which increased female schooling may empower women (Goldin, 2006; Doepke and Tertilt, 2009). Only 14 percent of 16-26 year old women in our sample were employed. 11 percent of them were employed in the non-agricultural sector, 10 percent in services, and 3 percent in agricultural sector. These facts match the overall pattern in Turkey, where female labor force participation remains rather low.[4] Roughly 7 percent worked in a job that had social security benefits. The last row in Panel B reports summary statistics for a personal income index that is constructed by averaging the z-scores of indicator variables on whether the respondent earns a personal income from the following six sources: rent from owning a land, rent from owning a house, income from owning a company or workplace, income from owning a vehicle, having money in a bank, and income from other asset ownership.[5] Higher values of the index indicate more personal income. On average, women grown up in rural areas were 7 percentage points less likely to work in

burning; and physical violence during pregnancy.

[4]In our entire survey data, the female labor force participation is 16.6 percent and the female labor force participation in non-agricultural sector is 11.6 percent.

[5]We construct a dummy variable for each indicator of personal income that takes the value of 1 if the respondent earns income and 0 otherwise. We take the simple average of z-scores of these six dummy variables to construct a personal income index for the respondent.

the non-agricultural sector, 6 percentage points less likely to work in services, 5 percentage points more likely to work in the agricultural sector, and 6 percentage points less likely to have access to social security benefits compared to women grown up in urban areas.

Panel C provides summary statistics for the type of partner or marriage market indicators. The partner completed on average 9.5 years of schooling, and his average employment probability was 84 percent. The average age at first marriage of the respondent was 20.2 years. Roughly 56 percent had decided on her marriage, while it was an arranged marriage for the rest of the women. On average 30 percent of the partners witnessed violence towards their own mothers, and 73 percent of them experienced violence from their family members, including parents, siblings, or extended family, in the past. The last row in Panel C reports summary statistics for an index that is constructed from averaging the z-scores of indicator variables on whether the respondent's household owns the following 24 different assets: refrigerator, gas/electric oven, microwave oven, blender/mixer, dishwasher, washing machine, iron, vacuum cleaner, plasma-TV (LCD), television, cable-TV, satellite antenna, video camera, DVD/VCD player, camera, cellphone, non-mobile telephone, computer, internet, air-conditioner, car, taxi/mini-bus, tractor, and motorcycle.[6] Higher values of the index indicate more household wealth. On average, the partners of women grown up in rural areas have roughly 1.8 years less schooling, but are 7 percentage points more likely to be employed. The average age of marriage for women grown up in rural areas is 0.4 years lower. Women grown up in rural areas are 12 percentage points less likely to have decided on their marriage. The level of their household asset ownership is also lower compared to women grown up in urban areas.

Panel D presents the descriptive statistics for gender and domestic violence attitudes. Roughly 39 percent of the women in our sample agree with the statement that a woman should not argue with her partner if she disagrees with him, while 68 percent of them agree with the statement that a woman should be able to spend her money as she wills. Regarding attitudes towards domestic violence, 10 percent agree with the statement that men can beat their partners in certain situations, and 29 percent agree that it may be necessary to beat children for discipline. More than half of them, 71 percent, agree that men should also do housework, including cooking and cleaning. 41 percent agree that men in the family are responsible for a woman's behavior, while 22 percent agree that it is a woman's duty to have sexual intercourse with her husband. Since these variables measure gender and domestic violence attitudes in different ways, we also construct a gender attitudes index to aggregate information by averaging the z-scores of attitudes variables following Kling et al. (2007).[7]

[6] We construct a dummy variable for each indicator of household wealth that takes the value of 1 if the respondent's household owns an asset and 0 otherwise. We take the simple average of the z-scores of these 24 dummy variables to construct an asset index for the respondent's household.

[7] We follow Kling et al. (2007) to create a summary index for gender role attitudes. We recode the variables such that each dummy variable receives the value of 1 if the respondent disagrees with statements of gender inequality and domestic violence (a woman should not argue with her partner if she disagrees with him; men can beat their partners in certain situations; it may be necessary to beat children for discipline; men in the family are responsible for a woman's behavior; it is a woman's duty to have sexual intercourse with her husband), and if the respondent agrees with statements of gender equality (a woman should be able to spend her money as she wills; men should also do housework, including cooking and cleaning), and 0 otherwise. We then construct z-scores for each attitude

Higher values of the index indicate more progressive and gender-equal attitudes.

Panel E provides descriptive statistics for domestic violence measures. Following Duflo et al. (2007) and Kling et al. (2007), we aggregate information from each set of domestic violence measures to create five summary indices: physical violence index, sexual violence index, psychological violence index 1, psychological violence index 2, and financial control index. This aggregation improves statistical power to find effects that go in the same direction for a group of indicators which captures similar forms of violent behavior. We construct these indices by averaging the z-scores of each underlying measure of physical, sexual, psychological violence and financial control behavior by the spouse as described above. Higher values of the indices indicate more intimate partner violence. While the raw means indicate less physical violence, less psychological violence (narrowly defined) and less financial control behavior exercised by the partner of women grown in urban areas, the differences between rural and urban childhood regions are not statistically significant.

The descriptive statistics for the components of each dimension of domestic violence are presented in Table A2 in Appendix B. Roughly 24 percent of 16-26 aged women who ever had a relationship in our sample experienced at least one dimension of physical violence from their intimate partner. The most prevalent forms of physical violence are spousal acts of slapping or throwing an object that would hurt (21 percent) and pushing, shoving or pulling hair (11 percent). These are followed by less prevalent violent acts of physical violence during pregnancy (9 percent), hitting with his fist or in a way that hurts (5 percent), kicking, pulling on the ground, or beating (5 percent), and choking or burning (3 percent). Moreover, 9 percent of the women experienced sexual violence, including forced sexual acts (4 percent), forced sex due to fear of what the husband would do otherwise (6 percent), and humiliated sexual acts (13 percent) by their intimate partner. Roughly 33 percent experienced at least one dimension of psychological violence narrowly defined, which includes being insulted (26 percent), being humiliated (13 percent), and being threatened or scared (15 percent) by their intimate partner. Roughly 92 percent of the women in our sample experienced psychological violence in a broadly defined manner, which includes narrow definition in addition to other controlling behavior by the partner, including insisting on knowing her location (78 percent), getting angry if she speaks to other men (60 percent), intervening her clothes (49 percent), wanting his permission before she seeks healthcare (25 percent), trying to keep her away from her friends (20 percent), ignoring her (14 percent), trying to prevent contact from her family (9 percent), and being suspicious that she cheats on him (7 percent). In addition, 6 percent experienced financial control by their intimate partner, which includes taking her income despite her disapproval (3 percent) and refusing to give money for household spending (5 percent).

Finally, Panel F of Table 1 reports summary statistics on predetermined features of 16-26 year-old women who ever had a relationship in our sample. Roughly 54 percent of the women lived in a rural areas until the age of 12, one fifth lived in villages, and less than one percent had a primary

variable using the mean and standard deviation of the variable, and take the simple average of z-scores to create a gender attitudes index.

interview language that was different from Turkish, which could be predominantly Kurdish or Arabic. On average, 26 percent of their mothers experienced domestic violence.

3.2 Identification

The 1997 Compulsory Schooling Law coupled with the law on school starting age implied that individuals born after January 1987 were bound to complete 8 years of schooling while those born earlier could drop out after 5 years, as explained in further detail in Section 2. We use this break point in a Regression Discontinuity (RD) design to estimate the causal effect of schooling on domestic violence. Our identifying assumption is that these two cohorts born one month apart do not display any systematic differences other than being exposed to the compulsory schooling law or not. As long as this assumption holds, this provides an as-good-as-random assignment of treatment. In our RD design, we assign treatment according to the month and year of birth of the individual, with those that are born after January 1987 assigned to the treated status.

Following previous research (Clark and Royer, 2013; Oreopolous, 2006; Gulesci and Meyersson, 2015), we use an RD design by exploiting the discontinuity at the birth date and using this discontinuity as an instrument for years of schooling. We provide both the reduced-form estimates (i.e. sharp RD), and the two-stage least squares estimates (i.e. fuzzy RD) for all outcome variables of interest. Our specification follows a basic RD form:

$$y_i = \alpha + \beta t_i + f(x_i) + \epsilon_i \tag{1}$$

$$\forall x_i \in (c-h, c+h)$$

where y_i is the dependent variable, t_i is the treatment status, x_i is the forcing variable, and h is the bandwidth around the cutoff point c. The control function, $f(x_i)$, is a continuous n-order polynomial function of the forcing variable on each side of the cutoff point. We use local linear regressions in our RD estimations (Imbens and Lemiuex, 2008), and adopt the optimal bandwidth selection using the Imbens and Kalyanaraman (2009) routine. This implies the selection of an optimal bandwidth for each outcome variable examined. In addition, we use specifications that adopt the optimal bandwidth from the first stage results for years of schooling, which is estimated as 61 months around the discontinuity, in tables where we focus on heterogeneous effects. This static or constant bandwidth approach will complement the former results where we use the optimal bandwidth. We cluster standard errors at the month-year of birth level. We include the following control variables in all of our specifications: a dummy variable for whether the respondent's interview language was different from Turkish, a dummy variable for having grown up in a rural region, month-of-birth fixed effects, and region fixed effects.[8]

[8]We use fixed effects for 26 regions where the respondents lived until the age of 12, when they were exposed to the education reform.

3.3 Preliminary Checks

We present two standard validity checks for the RD design (Imbens and Lemiuex, 2008). First, we examine whether the density of the forcing variable, the month-year-of birth, is continuous at the discontinuity. We run a McCrary density test on the density of the forcing variable. This yields an insignificant estimate, as can be seen in Figure 1.

Second, in Figure 2, we examine the control variables, used in later regressions, at the discontinuity. Each graph represents local averages of the outcome in one-month bins, plotted against the forcing variable, with overlaid smoothed linear regression lines using raw data on each side of the cutoff. The gray lines represent 95 percent confidence intervals. The pre-determined characteristics that we plot are regional dummy variables for whether the respondent's childhood region is West, South, Central, North, East of Turkey, whether the respondent's childhood region is a rural area, whether the respondent's interview language is different from Turkish, and whether the respondent's mother faced domestic violence. The graphs do not indicate any significant jumps at the cutoff point. Overall, we conclude that the pre-determined covariates appear balanced around the threshold, further validating our RD design.

Since all of the intimate partner violence-related questions are only relevant for women who ever had a relationship, in our RD analysis we will primarily use the sample of women who ever had a relationship. This implies that our results will be less informative for women who never had a relationship at the time of the survey. A comparison of women who ever had a relationship with those who never had one shows that these two groups have significant differences. Table A1 in Appendix B shows that the women who never had a relationship were more educated, both in terms of years of schooling completed and junior high school completion rate, relative to those who ever had a relationship. These women without a relationship were also more likely to be employed, less likely to have conservative gender attitudes, and less likely to have grown up in a rural area. Their mothers were also less likely to have experienced domestic violence. However, they were more likely to have a lower personal income and live in a rural area at the time of the survey. Overall, these indicators suggest that women who never had a relationship come from more educated and less socially conservative backgrounds, implying that they would had continued junior high school even in the absence of the reform.

4 Effects of the Compulsory Schooling Law

4.1 Schooling Outcomes

We begin by testing the effect of the compulsory schooling reform on education outcomes. Figure 3 illustrates graphically the different effects of the reform on women and men by plotting local averages of female and male junior high school completion against the respondent's age where the cutoff is 21-22 in annual age bins at the interview date. The left graph in Figure 3 shows that

average junior high school completion for all women in sampled households is clearly higher for younger women who were exposed to the education reform. The magnitude of the effect is almost one and a half years. The right graph in Figure 3 plots the average junior high school completion for men in sampled households and shows no clear evidence of a jump at the cutoff point. This suggests that the reform had a much smaller effect on men, and this could be partly due to the fact that male junior high school completion rate prior to the reform was already roughly 80 percent, while the same rate for women was only 55 percent.

Figure 4 provides a graphical illustration of the RD design by comparing treatment and placebo effects using 2008 TNSDVW survey and 2014 Household Labor Force Survey (HLFS). In Panel A, the left graph plots the average junior high school completion in monthly bins against month-and-year of birth where the cutoff is January 1987 using 2008 TNSDVW survey. As described in Section 2, the education reform required that those born after this date to complete junior high school, while the older cohorts had the option of dropping out after completing primary school. Local linear smoothers on each side of the cutoff are overlaid on the graph, which show a clear jump at the discontinuity of roughly 15-20 percentage point increase in the probability of completing junior high school. We use data from the 2014 HLFS to conduct a placebo test for demonstrating the RD design further. The right graph in Panel A of Figure 4 shows the same relationship using the 2014 HLFS survey, where the age cutoff is the same age, comparing 21 and 22 year-old women. The same age cutoff corresponds to being born before or after January 1993. The right graph shows no evidence of a jump in completing junior high school for the women with the same age in the 2014 HLFS. Thus, the jump we observe around the discontinuity of reform's implementation in the 2008 survey is not likely to be driven by some underlying relationship between age and school completion, but rather an outcome of the reform.

While these graphs reveal a positive RD treatment effect of being exposed to the compulsory schooling reform, the results could further be refined with regression analysis. Table 2 reports the RD treatment effects on years of schooling and completion of different types of schools for all women in Panel A and for women who ever had a relationship in Panel B using 2008 TNSDVW. In each row, the last column reports outcome means for the relevant sample. All columns include controls for a dummy variable indicating whether the primary language of the respondent is different from Turkish, a dummy variable indicating whether the respondent has grown up in a rural location, month-of-birth fixed effects, and childhood region fixed effects. Column 5 displays the optimal bandwidth estimated by the Imbens and Kalyanaraman algorithm in months on each side of the cutoff.

The first row of Table 2 presents the estimates for RD treatment effects on years of schooling obtained by all women. The optimal bandwidth, calculated using the Imbens and Kalyanaraman (2009) algorithm, results in a bandwidth of 54 months around the discontinuity. Using a local linear specification, column 1 presents an RD estimate of 0.86 years treatment effect on years of schooling, which is statistically significant at 1 percent level. In terms of magnitude, a 0.86 years increase in

the years of schooling corresponds to a 10 percent increase relative to the mean. For robustness, we include alternative specifications with a quadratic control function in columns 2 and allow the bandwidth to vary by reporting linear RD estimates with a half and twice the optimal bandwidth in columns 3 and 4, respectively. The estimated effects remain significant within the range of roughly 0.8 – 1.3 years. Panel B focuses on the RD treatment effects on women who ever had a relationship, which is our sample of interest for testing intimate partner violence in the subsequent step. In Panel B, the linear RD treatment effect is 1.4 years of schooling, which corresponds to a 15 percent increase relative to the mean. In alternative specifications, the RD estimates for the sample of women who ever had a relationship remain highly significant, and larger than those for the whole sample. Comparing the means of the two samples shows that women in the ever-relationship sample had lower schooling outcomes relative to the whole sample before the reform, and were more likely to be compliers when the reform was implemented. In short, the compulsory schooling law had a positive effect on years of schooling of almost one year for all women and slightly more than one year (around 1.1 – 1.4 years) for women who ever had a relationship. The estimates are robust to alternative functional forms and bandwidths used. This implies that the fuzzy RD estimates in the two-stage least squares specification will be smaller than the sharp RD estimates as we will use the sample of women who ever had a relationship. In our results, however, we will report both of these estimates for comparison.

The remaining rows of Table 2 present the RD treatment effects on different types of school completion. In Panel A, the second row displays the estimated RD treatment effects for the outcome variable of whether the respondent completed junior high school or above. Column 1, using the local linear specification, reports an RD estimate of 19 percentage points, corresponding to 28 percent relative to the mean. In alternative specifications, the estimate remains significant, ranging from 0.11 to 0.21. In Panel B, the RD estimates of the reform's effect on the probability of completing junior high school for women who ever had a relationship are larger than the whole sample, ranging from 23 percentage points in the linear RD specification with optimal bandwidth to 19 percentage points in the quadratic RD specification. In Panel A, for the whole sample, the linear RD estimate of the treatment effect on completing high school is 14 percentage points. Although the effect is not precisely estimated in some specifications, it suggests that the reform had long-term effects in enabling some women to continue beyond junior high school. In Panel B, for women who ever had a relationship the linear RD treatment effect on completing high school is 19 percentage points, suggesting that the reform had long-lasting effects beyond the completion of junior high school among the main compliers with the reform. The RD estimates for whether the respondent completed primary school are all insignificant as expected. These results for the primary school completion form a robustness check to show that the reform did not have an impact on the likelihood of completing primary school, which was already compulsory prior to 1997.

Figure 5 provides a graphical demonstration of whether the reform had a differential impact on rural and urban regions of childhood. Since the reform affected children who were 12 years

old when the reform was implemented, we expect the reform to have heterogeneous effects due to regional disparities in constraints facing access to female education in Turkey. While some of these constraints result from insufficient schooling infrastructure in rural areas, some have to do with more conservative attitudes towards sending girls to school in rural areas (Dulger, 2004). The left graph in Figure 5 plots the average years of schooling attained by women grown up in rural areas, and shows that before the reform the average was considerably below eight years. At the discontinuity, there is clear evidence of a significant jump of roughly 1.5–1.8 years of schooling. In contrast, the right graph in Figure 5 shows no evidence of a jump at the discontinuity in urban childhood areas, which is not surprising given that the average years of female schooling for women grown up in urban areas before the reform was already more than eight years. As a consequence, the reform only had a significant impact on schooling of women who have grown up in rural regions in Turkey, without any significant effect on schooling of women grown up in urban regions.

Although the RD graphs in Figure 5 illustrate the rural-urban disparity on the reform's effects on schooling, there is room for more refined analysis. Table 3 reports the RD treatment effects on years of schooling and junior high school completion of women grown up in rural areas in Panel A and those grown up in urban areas in Panel B. The linear RD estimate in the first row of Panel A and column 1 shows that the reform had a positive effect of 1.8 percentage points on years of schooling women grown up in rural areas. This corresponds to a 21 percent increase relative to the mean. The RD estimates in alternative specifications in columns 2 to 4 remain highly significant, ranging from 1.7 to 2.2 percentage points. In contrast, the linear RD estimate in column 1 of Panel B reveals no significant impact of the reform on female years of schooling in urban childhood regions. The RD estimates in other columns remain insignificant, except for the linear RD estimate with twice the optimal bandwidth, which is likely the result of an artificially large bandwidth that covers observations with much lower values from the left side of the discontinuity. Similarly, we find evidence of a rural-urban difference in the reform's effect on junior high school completion. The linear RD estimate in the second row of Panel A in column 1 shows that the reform had a positive effect of 34 percentage points on the likelihood of completing junior high school, corresponding to a 52 percent increase relative to the mean. In contrast, the linear RD estimate in column 1 of Panel B shows no evidence of a significant effect on completing junior high school for women grown up in urban areas. Alternative RD estimates remain insignificant, except for the linear RD estimate with twice the optimal bandwidth, which is again likely the result of having an artificially large bandwidth. The point estimates in Panel B are also much lower than those in Panel A for both education outcomes.

As a robustness check, Table A3 in Appendix B reports the RD estimates using a static bandwidth of 61 months around the cutoff, which is the optimal bandwidth estimated for the sample of women who ever had a relationship. The findings in this table are similar to those in Table 3. While the RD treatment effects on years of schooling and junior high school completion among women grown up in rural regions are statistically significant and large, those among women from urban

regions are insignificant and much smaller. The differences in estimates are statistically significant for both specifications with linear and quadratic control functions.

The heterogeneous effects of the reform by childhood region will allow us to precisely estimate the effects of education on domestic violence through different channels. In particular, we will analyze the reform's effects through the labor market channel, the attitudes channel, and the marriage market channel.

4.2 Education and Labor Market Outcomes

In this section, we test whether the additional years of schooling caused by the reform had an impact on labor market outcomes in Turkey. Increased human capital of women may allow them to increase their participation in labor markets or earn higher returns on their additional years of schooling. Whether the increased bargaining power of women within the household reduces the incidence of domestic violence is an empirical question. The traditional theories of family predict that a stronger outside option allows the women to have credible threats of leaving the relationship, which would reduce domestic violence. However, the instrumental theories of violence predict that male partners may use coercive instruments, such as threats of violence, to extract rents from female partners, or control decision-making process within the household (McCloskey, 1996; Bloch and Rao, 2002). In order to test whether we find evidence for any of these effects, we test whether the reform-induced increase in years of schooling, particularly for women grown up in rural regions, had an effect on labor market outcomes.

Panel B of Figure 4 provides a comparison of the treatment and placebo effects using 2008 TNSDVW survey and 2014 Household Labor Force Survey (HLFS) for the outcome of propensity to work. The left graph plots the average propensity to work in monthly bins against month-and-year of birth where the cutoff is January 1987 using 2008 TNSDVW survey. It shows a clear jump at the discontinuity in the probability of being employed. We use data from the 2014 HLFS to conduct a placebo test for demonstrating the RD design further. The right graph in Panel B of Figure 4 shows the same relationship using the 2014 HLFS survey, where the age cutoff is the same age, comparing 21 and 22 year-old women. It shows no evidence of a jump in propensity to work for the women with the same age in the 2014 HLFS. We examine RD treatment effects further using regression analysis.

Table 4 provides RD estimates of the reform's effect on labor market outcomes. Column (1) reports ordinary least squares (OLS) regressions of outcome variables on years of schooling for observations within the optimal bandwidth as a reference point. We observe a positive correlation between being employed, working in the non-agricultural sector, working in service, having social security, having personal income and years of schooling. On the other hand, we find a negative correlation between working in agricultural sector, having an irregular job that is either seasonal or temporary and years of schooling. For example, an additional year of schooling is associated with a 1.3 percentage point increase in being employed, 1.7 percentage point increase in working in

services, and a 0.9 percentage point decline in working in an irregular job.

The linear RD estimate in the first row of Table 4 in column 2 indicates that the reform had a positive effect of 5.7 percentage points on the likelihood of being employed, which corresponds to a 41 percent increase relative to the sample mean. The linear RD-2SLS estimate in column 3 is also precisely estimated. The comparison of the RD estimates across rural and urban regions of childhood reveals that the overall sample results are driven by the effects in the rural sample. The linear RD estimate in column 4 shows that the reform led to a 8.2 percentage point increase in being employed for women grown up in rural regions. The linear RD-2SLS estimate in column 5 remains significant, and provides evidence for the same magnitude of effect. This corresponds to a sizable impact of 59 percent relative to the rural sample mean. In contrast, we find no evidence that the reform had a significant impact on women grown up in urban areas.

Column 2 in the second row of Table 4 shows that the reform had a significant positive effect on working in the non-agricultural sector of 5.4 percentage points, yielding a 49 percent increase relative to the sample mean. The IV estimate in column 3 is also precisely estimated. The linear RD estimate in column 4 shows that the reform had a large effect of 9.6 percentage points on working in non-agricultural sector for women grown up in rural areas, where the reform had a particularly strong effect. The IV estimate in column 5 is also highly significant. Columns 6 and 7 show no evidence of a significant effect on working in non-agricultural sector for women grown up in urban areas, which is not surprising given that we find no evidence of a significant effect on schooling in these areas.

In the third row of Table 4, column 4 shows that the reform had a significant positive impact of 7.7 percentage points on working in services among women grown up in rural areas. The IV estimates in column 5 confirms this positive effect. The RD estimates of the reform's effect on agricultural sector employment are all insignificant and close to zero. In the fifth row, the linear RD estimate in column 2 shows that the reform had a marginally significant negative effect of 3.2 percentage points (46 percent relative to the sample mean) on working in an irregular job. The linear RD-2SLS estimate in column 3 is estimated precisely, yielding the same magnitude of impact. The RD estimates for the rural and urban samples show that the overall results are again driven by the large effects for women grown up in rural regions. The linear RD estimate in column 4 shows that the reform reduced the likelihood of working in an irregular job by 6.7 percentage points, corresponding to a 84 percent decline relative to the sample mean. We find no evidence of a significant effect on the urban childhood sample.

In the sixth row of Table 4, we find that the reform had a marginally significant positive impact of 3.6 percentage points on the probability of having social security among women grown up in rural areas, corresponding to a 72 percent increase relative to the rural sample mean. We find no evidence of significant effect on the overall sample or the urban childhood sample.

Finally, in the last column of Table 4 we report RD treatment effects on the personal income index, described in section 3. The RD estimate in column 2 reveals a marginally significant treat-

ment effect of 8.3 percentage points for the overall sample, which is again driven by the large effects for women grown up in rural regions. The RD estimate in column 4 shows a highly significant treatment effect of 11.6 percentage points for women grown up in rural areas. The IV estimate in column 5 is also precisely estimated, revealing an effect of the same magnitude. In contrast, we find no evidence of a significant impact on the urban childhood sample.

As a robustness check, Table A4 in Appendix B reports the RD estimates using a static bandwidth of 61 months around the cutoff, which is the optimal bandwidth estimated for the sample of women who ever had a relationship. The findings in the table show that the RD estimates for being employed, being employed in non-agriculture, and having a personal income are robust to this specification. The sharp RD results for being employed in services among women grown up in rural areas remains significant, while the fuzzy RD estimate is less precisely estimated. The RD results for having social security among women grown up in rural areas are also not precisely estimated. Finally, we find that the differences in estimates between rural and urban childhood regions are not statistically significant.

Overall, these findings imply that, ten years after the implementation of the eight-year compulsory schooling reform in Turkey, women who attained a higher level of education due to the reform are more likely to work in the non-agricultural sector, particularly in services, and less likely to work in irregular jobs. As a result, they are more likely to have social security, which is particularly the case if they have grown up in rural areas, and more likely to earn a personal income. Since the reform had a large impact on schooling outcomes of women grown up in rural areas without much of an impact in urban areas, it also had a large impact on labor market outcomes of women grown up in rural areas.

4.3 Education and Marriage Market Outcomes

In this section, we test whether the additional years of female schooling induced by the reform had an effect on quality of partners matched and marriage market outcomes. Increased female schooling could change the profile of husbands that women are matched with in the marriage markets. An increase in female education could allow for a better match in the marriage market with a higher 'quality' husband, either more educated or more likely to earn a higher income, which could in turn affect the incidence of domestic violence faced by the female partner.

In Table 5, the OLS estimates show that a woman's years of schooling are positively correlated with her partner's schooling, her marriage age, her marriage decision, and an index of household assets, while they are negatively correlated with whether the partner is employed and whether the partner witnessed violence towards his mother. The RD estimates reported in columns 2-7 show that the RD estimates are insignificant for all outcomes except the asset ownership index. The linear RD estimate in column 2 reveals a highly significant treatment effect of 10.1 percentage points on asset ownership index. The IV estimate in column 3 confirms this positive significant effect. The linear RD estimate in column 4 shows a treatment effect of 7.6 percentage points for women grown

up in rural areas, which is confirmed by the significant and positive IV estimate in column 5. Since the asset ownership index represents the assets owned by the household, this reform-induced positive impact could reflect the additional personal income earned by the female partner as we have shown in Table 4. Overall, we conclude that the reform did not have any meaningful effects on marriage market outcomes with the exception of asset ownership, which could be in fact a result of the positive impact on female personal income.

As a robustness check, Table A5 in Appendix B reports the RD estimates using a static bandwidth of 61 months around the cutoff, which is the optimal bandwidth estimated for the sample of women who ever had a relationship. The findings in the table match closely to the findings in Table 5. The RD estimates are not significant with the exception of household asset ownership, which is significant in the overall sample and for the sample of women grown up in rural regions. Finally, we find that the differences in estimates between rural and urban childhood regions are not statistically significant, with the exception of marriage decision, which is marginally significant and positive in the urban childhood sample.

4.4 Education and Gender Role Attitudes

In this section, we test whether the reform-induced increase in female schooling affected gender role and domestic violence attitudes of women. Our findings are reported in Table 6, where we focus on the probability of whether the respondent agrees with seven statements reflecting their attitudes towards gender roles and domestic violence, and a composite gender attitudes index, whose higher values reflect more gender-equal attitudes.

The correlations shown in column 1 of Table 6 indicate that more educated women are more likely to have more gender-equal attitudes. In columns 2-7, the RD estimates are significant for only two gender attitudes: men should also do housework such as cooking and cleaning, and men in the family are responsible for a woman's behavior. The linear RD estimate in column 2 shows a significant treatment effect of 9.3 percentage points on the probability of agreeing with the statement that men should also do housework such as cooking and cleaning, corresponding to a 13 percent increase relative to the sample mean. The IV estimate in column 3 is also highly significant and positive. For women grown up in rural regions, column 4 shows a linear RD treatment effect of 14.2 percentage points on the probability of agreeing with the statement that men should also do housework such as cooking and cleaning, corresponding to a 22 percent increase relative to the sample mean. Columns 6 and 7 show no evidence of a significant effect on the urban childhood sample. Finally, the linear RD estimate in column 2 shows that the reform had a negative effect of 9.4 percentage points on the probability of agreeing with the statement that men in the family are responsible for a woman's behavior. The IV estimate in column 3 confirms this negative and significant effect. However, there is no evidence of heterogeneous effect of the reform based on the childhood region.

The last row in Table 6 tests whether the reform had a significant effect on the gender attitudes

index. The OLS estimate in column 1 indicates that schooling is positively correlated with the index, with one additional year of schooling corresponding roughly to a 6.1 percentage points higher index. The RD estimates in columns 2 to 7 show no evidence of a significant effect of the reform on the gender attitudes index.

As a robustness check, Table A6 in Appendix B reports the RD estimates using a static bandwidth of 61 months around the cutoff, which is the optimal bandwidth estimated for the sample of women who ever had a relationship. The findings are similar to those in Table 6. The RD estimates are significant for agreeing with a more equal division of labor, primarily in the overall and rural samples, although the RD estimate in urban sample becomes marginally significant. In contrast, the RD estimates for agreeing with the statement that men in the family are responsible for a woman's behavior are marginally significant and negative in the overall sample. We find no evidence of a significant effect in other gender and domestic violence attitudes. Finally, we find that the differences in estimates between rural and urban childhood regions are not statistically significant.

4.5 Education and Domestic Violence

In this section, we test whether the reform had a significant impact on domestic violence outcomes. Panel B of Figure 5 provides a graphical illustration of the RD treatment effects on the psychological violence index 2, as explained in section 3, among women grown up in rural areas compared to women grown up in urban areas. We expect the reform to have a larger impact on women grown up in rural regions since the reform had a large impact on years of schooling for women grown up in rural areas, without any significant impact on the same outcome for women grown up in urban areas. The left graph for women grown up in rural regions shows a significant positive jump at the discontinuity of roughly 0.10-0.15 percentage points. In contrast, the right graph for the urban childhood sample shows no evidence of a significant jump at the discontinuity.

In order to examine the effects of the reform on domestic violence outcomes in a more refined analysis, we provide results from RD regressions in Table 7. The OLS estimates in column 1 indicate the presence of a negative correlation between years of schooling and physical violence index, sexual violence index, psychological violence index 1, psychological violence index 2, and financial control index. The magnitudes of the correlations suggest that one additional year of schooling corresponds roughly to 2.6 percentage points less physical violence, 1.3 percentage points less sexual violence, 1.1 percentage points less psychological violence narrowly defined, 2.0 percentage points less psychological violence broadly defined, and 1.7 percentage points less financial control exercised by the intimate partner.

The RD results in the first two rows in Table 7 show no evidence of a significant effect of the reform on physical violence and sexual violence indices. In the subsequent rows, we find that the reform only had a significant impact on the sample of women grown up in rural regions. The RD estimates in column 4 show that the reform had a positive significant impact on the psychological

violence index 1 of 19.1 percentage points, and the psychological violence index 2 of 12.3 percentage points. The IV estimates in column 5 confirms these positive effects, but are less precisely estimated. Finally, the last row shows that the reform had a marginally significant and positive impact on financial control index of 23.5 percentage points. The IV estimate is in line with the sharp RD estimate, and is also marginally significant.

As a robustness check, Table A7 in Appendix B reports the RD estimates using a static bandwidth of 61 months around the cutoff, which is the optimal bandwidth estimated for the sample of women who ever had a relationship. The findings are similar to those in Table 7. The RD estimates remain significant for psychological violence indices in the rural regions, while they are less precisely estimated for financial control index. However, the differences in estimates between women from rural and urban regions are statistically significant for psychological violence indices and financial control index. In contrast, we find no evidence for a significant treatment effect on either physical or sexual violence, and the differences in estimates are not statistically significant.

Overall, these findings imply that the additional reform-induced educational attainment of women who grew up in rural areas allowed them to work in non-agricultural sector and provided them with higher personal income. The positive female income generated through the labor market channel created incentives for the male partner to extract rents from the female partner by using coercive instruments, such as threats of violence, and other controlling behavior to have more influence over the decision-making process in the allocation of household resources. In particular, our finding that the male partner exerts more financial control at the discontinuity implies that the male partner has a motivation to extract rents by either taking her income or refusing to contribute to household spending. This complements other coercive instruments involved in psychological violence narrowly defined, including insulting, humiliating, and threatening the female partner, and psychological violence broadly defined, including the narrow definition and other controlling behavior measures such as exerting control over her location or her relations with her family.

5 Conclusion

The main objective of this paper is to provide evidence of the effect of a change in compulsory schooling that exogenously increased average years of schooling on the prevalence of domestic violence in Turkey. Using an RD design allows us to estimate causal effects of the education reform on domestic violence measures and related outcomes. While previous studies focused on basic correlations between education levels and risk of domestic violence, such correlations are likely to suffer from omitted variable bias given that unobservables such as ability, socioeconomic status, and upbringing might affect both education and the risk of domestic violence. The key contribution of this paper is to assess the effect of an exogenous increase in education on different dimensions of spousal violence in a developing-country context with high prevalence of domestic violence and relatively low levels of women's empowerment.

We find that the reform led to an increase of roughly one to one and half years of additional schooling of women on average, and this had significant positive effects on women's empowerment through the labor market channel. Women in treated cohorts are more likely to be employed, particularly in non-agricultural sector, have higher personal income, and have access to social security benefits. We find that the main compliers with the reform were women who have grown up in rural regions that lagged in schooling infrastructure and exhibited conservative norms against female schooling. The reform led to an increase of 1.8 years of schooling for these women. On the other hand, we find no evidence of a significant impact on education of women grown up in urban areas who had attained on average eight years of schooling prior to the reform. In parallel to this, we find larger effects on employment outcomes and income of women grown up in rural areas than in the overall sample, without evidence of a significant impact for women grown up in urban areas.

We investigate whether the reform-induced increase in years of schooling, particularly in rural areas, led to an improvement in women's attitudes or their marriage market outcomes. We find no evidence of a significant impact on domestic violence attitudes. Moreover, we find no evidence of a significant impact on the quality of the partner, including his schooling, his employment, and his exposure to violence towards his mother or himself in the past. We also find no evidence of a significant impact over decision rights about marriage, or the age of marriage for our ever-married subsample. The only outcome for which we find a significant and positive impact is the household ownership of assets, which is likely a result of having higher personal income resulting from higher returns to education.

Our findings reveal that the reform had a significant and positive effect on psychological violence and financial control behavior experienced by women grown up in rural areas. In contrast, we find no evidence of a significant impact on physical or sexual violence for these women. We interpret our results as evidence that support instrumental theories of violence. In particular, our findings imply that additional years of schooling induced by the reform allowed women to benefit through the labor market channel, realizing a higher personal income. This unexpected change in women's employment and income increased the incentives of the male partners to use threats of violence and other financial control behavior to extract rents from the female partner and regain control of household decision-making. As our indicators of financial control behavior include taking her income or refusing to contribute to household spending, we have direct evidence for the male partner's motivation to control and appropriate the additional income earned by the female partner.

Overall, our findings suggest that the expansion of compulsory schooling in Turkey had significant empowering effects through the labor market channel as opposed to the marriage market or attitudes channels. These effects were particularly strong for the main compliers with the reform, women grown up in rural areas that faced the largest constraints in access to education. However, our results on domestic violence show that the improvement in labor market outcomes and access to a higher level of income created incentives for male partners to use coercive instruments in order to gain control of this additional income. This gave rise to an increase in psychological violence

exercised by male partners, including threats of violence, and financial control behavior aimed at extracting rents from women. The evidence implies a mixed view of the effectiveness of broad expansions of compulsory schooling, in a context of significant limitations on women's rights, to achieve empowerment of women in several dimensions, one of which is the reduction in domestic violence against women.

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Appendix A List of Variables

Outcome Variables:

- Years of Schooling: Number of years of school that the respondent completed.
- Completed Junior High School: A dummy variable equal to one if the respondent completed junior high school or above (i.e. at least completed 8 years of schooling).
- Completed High School: A dummy variable equal to one if the respondent completed high school or above (i.e. at least completed 11 years of schooling).
- Completed Primary School: A dummy variable equal to one if the respondent completed primary school or above (i.e. at least completed 5 years of schooling).
- Employed: A dummy variable equal to one if the respondent is employed during last week.
- Employed in Non-agriculture: A dummy variable equal to one if the respondent is employed during last week in services or industrial sector.
- Employed in Services: A dummy variable equal to one if the respondent is employed during last week in services.
- Employed in Agriculture: A dummy variable equal to one if the respondent is employed during last week in agriculture.
- Social Security: A dummy variable equal to one if the respondent has social security benefits from her job.
- Personal Income Index: A z-score constructed by averaging the z-scores of income dummy variables, which are calculated by using the mean and standard deviation of the variable. These dummy variables take the value of one if the respondent earns a personal income from the following six sources: rent from owning a land, rent from owning a house, income from owning a company or workplace, income from owning a vehicle, having money in a bank, and income from other asset ownership.
- Partner's Schooling: Number of years of school completed by the respondent's partner.
- Partner's Employment: A dummy variable equal to one if the respondent's partner is employed.
- Partner witnessed violence towards his mother: A dummy variable equal to one if the respondent's partner witnessed violence towards his mother from his father.

- Partner experienced violence from his family members: A dummy variable equal to one if the respondent's partner experienced violence from one of his family members, including parents, siblings, and other relatives.

- Marriage Age: The age of the respondent at the time of her first marriage.

- Marriage Decision: A dummy variable equal to one if the respondent decided on marriage together with her husband, instead of being decided by her or his family.

- Asset Ownership Index: A z-score constructed by averaging the z-scores of asset ownership dummy variables, which are calculated by using the mean and standard deviation of the variable. These dummy variables take the value of one if the respondent's household owns the asset. The following assets are included: refrigerator, gas/electric oven, microwave oven, blender/mixer, dishwasher, washing machine, iron, vacuum cleaner, plasma-TV (LCD), television, cable-TV, satellite antenna, video camera, DVD/VCD player, camera, cellphone, non-mobile telephone, computer, internet, air-conditioner, car, taxi/mini-bus, tractor, and motorcycle.

- Gender role and domestic violence attitudes: A set of seven dummy variables, each equal to one if the respondent reported that she agrees with a statement on gender roles or domestic violence. The statements are as follows: (i) a woman should not argue with partner if she disagrees with him; (ii) a woman should be able to spend her money as she wills; (iii) men can beat their partners in certain situations; (iv) it may be necessary to beat children for discipline; (v) men should also do housework such as cooking and cleaning; (vi) men in the family are responsible for a woman's behavior; (vii) it is a woman's duty to have sexual intercourse with her husband.

- Gender attitudes index: A z-score constructed by averaging the z-scores of seven attitude dummy variables, which are calculated by using the mean and standard deviation of the variable. These dummy variables take the value of one if the respondent disagrees with the following statements: a woman should not argue with her partner if she disagrees with him; men can beat their partners in certain situations; it may be necessary to beat children for discipline; men in the family are responsible for a woman's behavior; it is a woman's duty to have sexual intercourse with her husband, and if the respondent agrees with the following statements: a woman should be able to spend her money as she wills; men should also do housework, including cooking and cleaning.

- Physical violence index: A z-score constructed by averaging the z-scores from each of the 6 physical violence indicators, including dummy variables that equal one if the respondent reports that she experienced intimate partner violence acts of (i) slapping or throwing an object that would hurt; (ii) pushing, shoving, or pulling hair; (iii) hitting with his fist or in a

way that hurts; (iv) kicking, pulling on the ground, or beating; (v) choking or burning; (vi) and physical violence during pregnancy.

- Sexual violence index: A z-score constructed by averaging the z-scores from each of the 3 sexual violence indicators, including dummy variables that equal one if the respondent reports that she experienced intimate partner violence acts of (i) forced sexual acts, (ii) forced sexual relation due to the fear of what the partner would do otherwise, and (iii) humiliating sexual acts.

- Psychological violence index 1: A z-score constructed by averaging the z-scores from each of the 3 psychological violence indicators, including dummy variables that equal one if the respondent reports that she experienced intimate partner violence acts of (i) insulting, (ii) humiliating, and (iii) scaring or threatening.

- Psychological violence index 2: A z-score constructed by averaging the z-scores from each of the 11 psychological violence indicators, including dummy variables that equal one if the respondent reports that she experienced intimate partner violence acts of (i) insulting, (ii) humiliating, (iii) scaring or threatening, (iv) trying to keep her away from her friends, (v) trying to prevent contact from her family, (vi) insisting on knowing her location, (vii) ignoring her, (viii) getting angry if she speaks to other men, (ix) being suspicious that she cheats on him, (x) wanting his permission before she seeks healthcare, and (xi) intervening her clothes.

- Financial control index: A z-score constructed by averaging the z-scores from two of the financial control behaviors, including dummy variables that equal one if the respondent reports that she experienced the following behaviors from her intimate partner: (i) take income from her despite her disapproval, (ii) refuse to give her money for household spending.

- Mother experienced domestic violence: A dummy variable equal to one if the respondent's mother experienced domestic violence.

- Childhood region, rural: A dummy variable equal to one if the respondent lived in a rural village or district until she was 12 years old.

- Childhood region, urban: A dummy variable equal to one if the respondent lived in an urban area until she was 12 years old.

Covariates:

- Non-Turkish Speaker: A dummy variable equal to one if the respondent speaks a non-Turkish language as her primary language.

- Lives in a village: A dummy variable equal to one if the respondent lives in a village.

- Region dummies: Dummy variables for each of the 26 regions where the respondents lived until they were 12 years old.

Outcome Variables in Appendix B:

- Domestic violence indicators: These are dummy variables equal to one if the respondent reports that she experienced such a violent behavior from her partner. These include: slap or throw an object that would hurt; push, shove, or pull hair; hit with his fist or in a way that hurts; kick, pull on the ground, or beat; choke or burn; physical violence during pregnancy; forced sexual act; forced sex due to fear; humiliated sexual act; insult; humiliate; threaten or scare; try to keep her away from her friends; try to prevent contact from her family; insist on knowing her location; ignore her; get angry if she speaks to other men; be suspicious that she cheats on him; want his permission before seeking health care; intervene her clothes.

- Physical violence: A dummy variable equal to one if the respondent experienced at least one of the 6 physical violence acts from her partner: (i) slapping or throwing an object that would hurt; (ii) pushing, shoving, or pulling hair; (iii) hitting with his fist or in a way that hurts; (iv) kicking, pulling on the ground, or beating; (v) choking or burning; (vi) and physical violence during pregnancy.

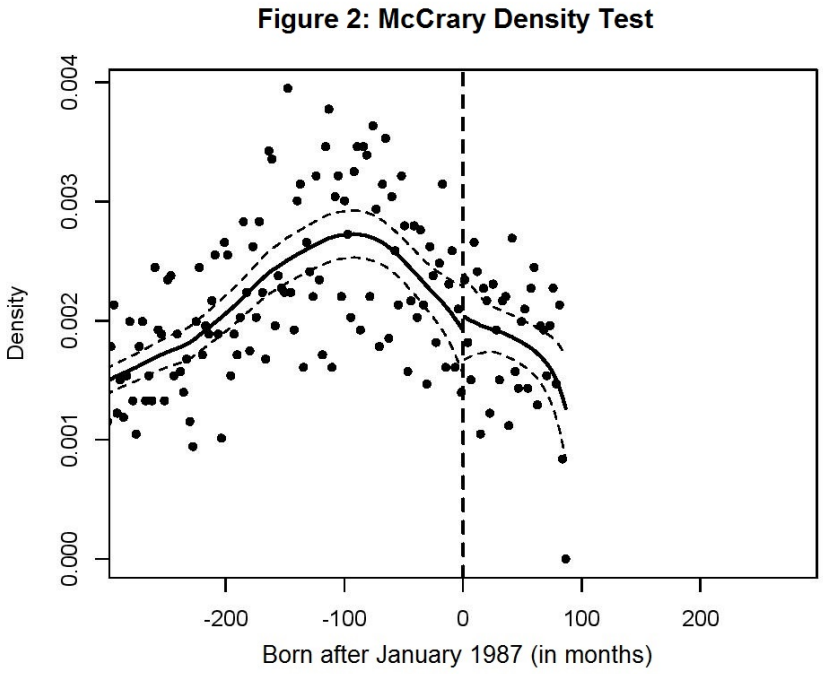
- Sexual violence: A dummy variable equal to one if the respondent experienced at least one of the 3 sexual violence acts from her partner: (i) forced sexual acts, (ii) forced sexual relation due to the fear of what the partner would do otherwise, and (iii) humiliating sexual acts.

- Psychological violence 1: A dummy variable equal to one if the respondent experienced at least one of the 3 psychological violence acts from her partner: (i) insulting, (ii) humiliating, and (iii) scaring or threatening.

- Psychological violence 2: A dummy variable equal to one if the respondent experienced at least one of the 11 psychological violence acts from her partner: (i) insulting, (ii) humiliating, and (iii) scaring or threatening, (iv) trying to keep her away from her friends, (v) trying to prevent contact from her family, (vi) insisting on knowing her location, (vii) ignoring her, (viii) getting angry if she speaks to other men, (ix) being suspicious that she cheats on him, (x) wanting his permission before she seeks healthcare, and (xi) intervening her clothes.

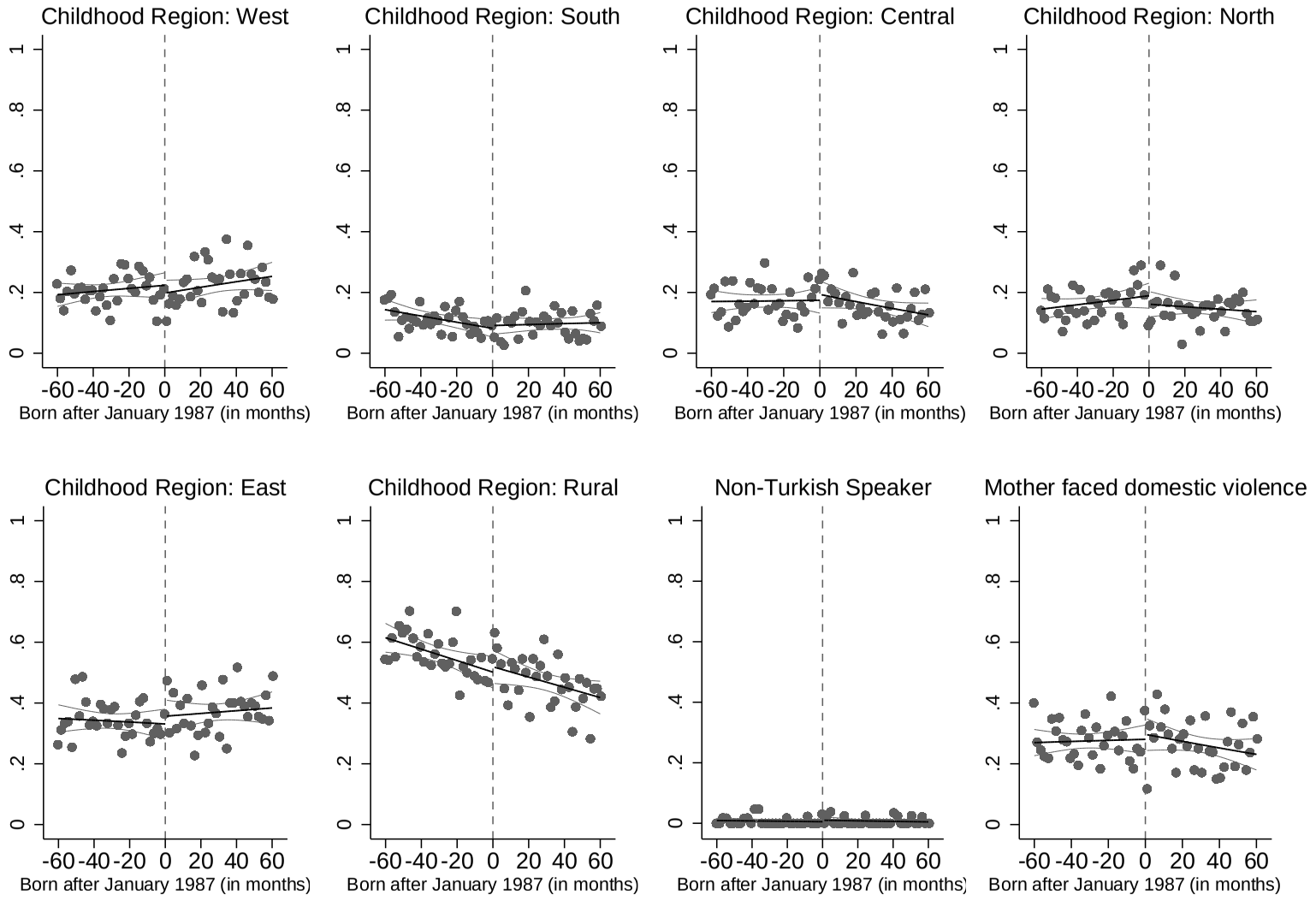
- Financial control: A dummy variable equal to one if the respondent experienced at least one of the 2 financial control behavior from her partner: (i) take income from her despite her disapproval, (ii) refuse to give her money for household spending.

Figure 1: McCrary Density Test



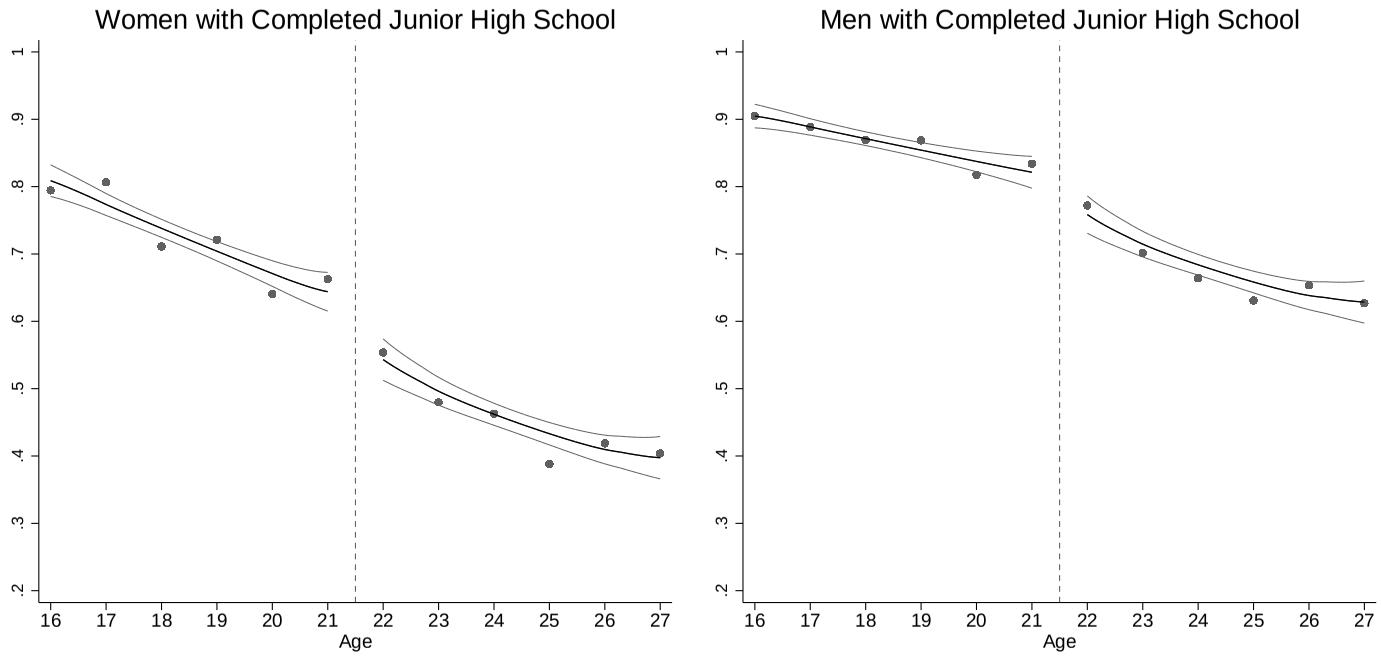
Note: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey. The graph shows the McCrary test of whether there is a discontinuity in the density of the forcing variable, the month of birth.

Figure 2: Balanced Covariates



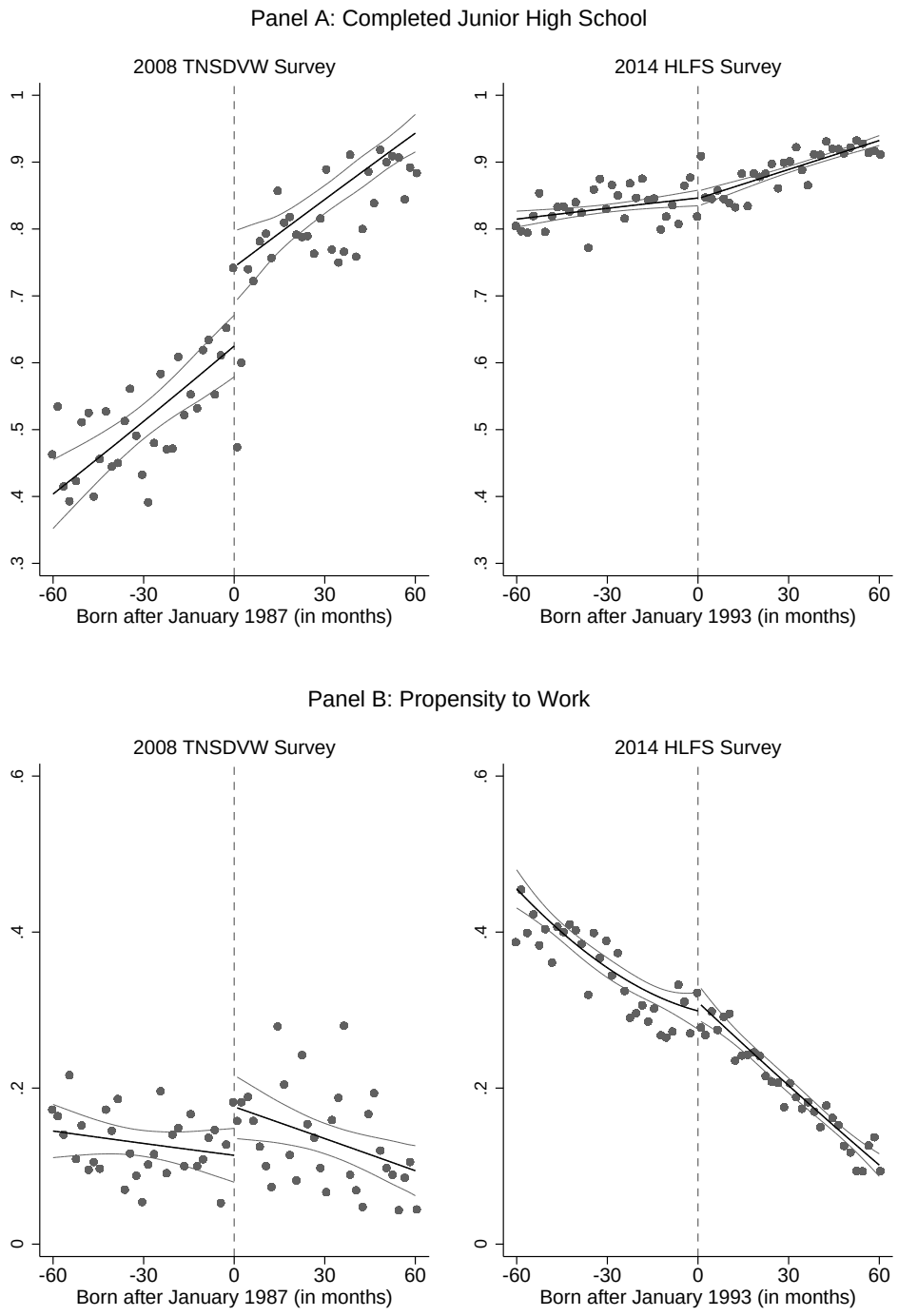
Note: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey. Figures plot pre-determined covariates in monthly bins against the month-year-of-birth of being born in January 1987. The vertical line in each graph represents the cut-off point, January 1987. Gray lines show 95 percent confidence intervals around the mean level. Variable definitions are listed in Appendix A.

Figure 3: 2008 NSDVW Household Sample



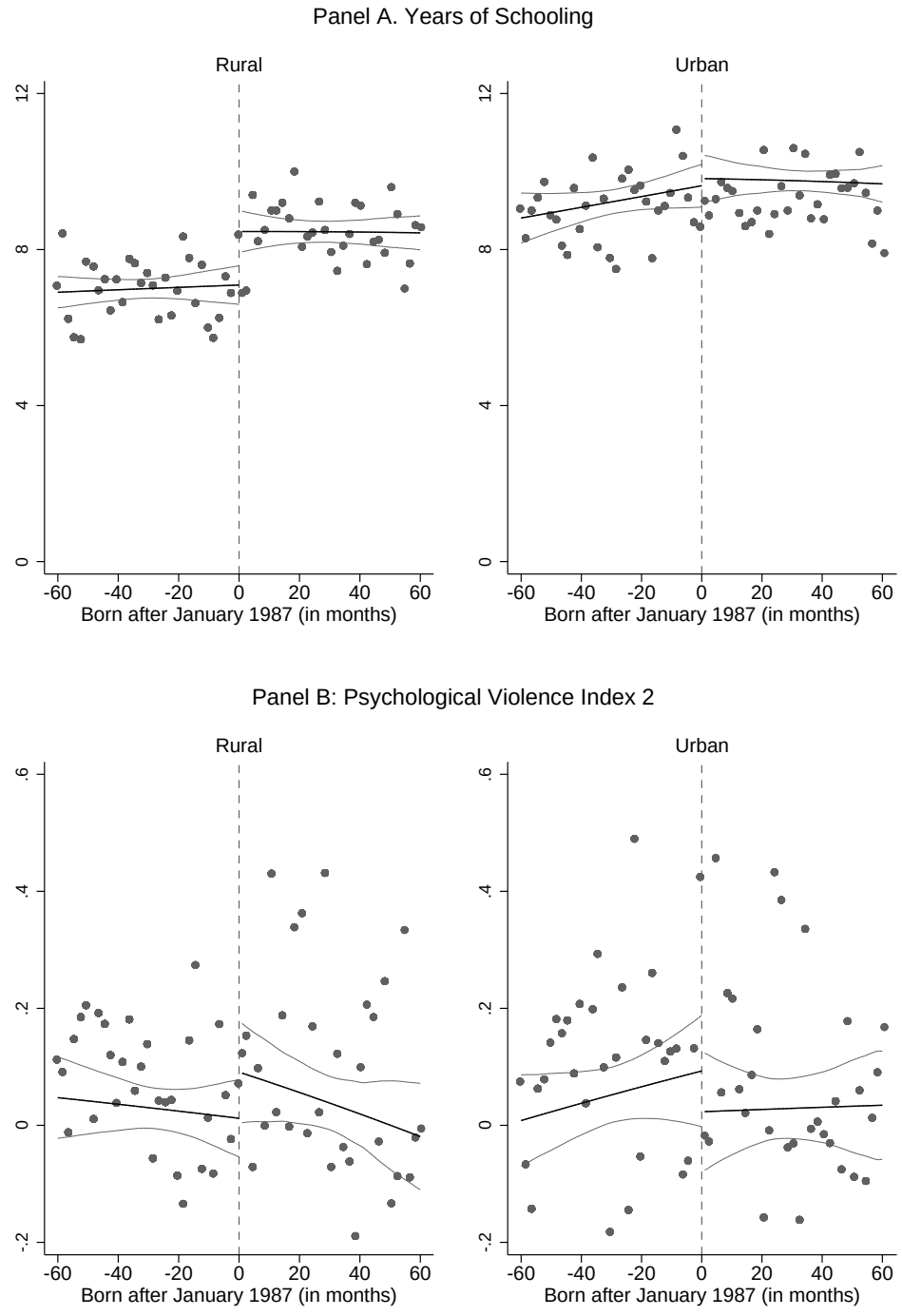
Note: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey. Figures plot junior high school completion rates in monthly bins against the month-year-of-birth of being born in January 1987. The vertical line in each graph represents the cut-off point, January 1987. Gray lines show 95 percent confidence intervals around the mean level.

Figure 4: Treatment and Placebo



Note: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey and 2014 Household Labor Force Survey. Figures plot a dummy variable equal to one of the respondent completed junior high school, and a dummy variable equal to one if the respondent works in monthly bins against the month-year-of-birth of being born in January 1987. The vertical line in each graph represents the cut-off point, January 1987. Gray lines show 95 percent confidence intervals around the mean level.

Figure 5: RD Treatment Effects: Rural vs Urban Region of Childhood Residence



Note: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey. Figures plot years of schooling and psychological violence index 2 in monthly bins against the month-year-of-birth of being born in January 1987. The vertical line in each graph represents the cut-off point, January 1987. Gray lines show 95 percent confidence intervals around the mean level.

TABLE 1: SUMMARY STATISTICS OF 16-26 YEAR-OLD WOMEN WHO EVER HAD A RELATIONSHIP

	Region of Childhood			Difference	
	All	Rural	Urban	(2) – (3)	
	(1)	(2)	(3)	(4)	(5)
	Mean	Mean	Mean	Est.	Observations
	(S.D.)	(S.D.)	(S.D.)	(S.E.)	(All/Rural/Urban)
Panel A: Education					
Schooling	8.51	7.66	9.48	-1.82***	2,078/1,102/962
	(3.32)	(3.10)	(3.29)	(0.18)	
Completed Junior High School	0.63	0.53	0.75	-0.22***	2,078/1,102/962
	(0.48)	(0.50)	(0.44)	(0.03)	
Completed High School	0.38	0.28	0.50	-0.23***	2,078/1,102/962
	(0.49)	(0.45)	(0.50)	(0.03)	
Completed Primary School	0.95	0.95	0.96	0.01	2,078/1,102/962
	(0.21)	(0.22)	(0.19)	(0.01)	
Panel B: Labor Market Outcomes					
Employed	0.14	0.13	0.15	-0.02	2,190/1,186/990
	(0.35)	(0.34)	(0.36)	(0.02)	
Employed in Non-agriculture	0.11	0.08	0.15	-0.07***	2,190/1,186/990
	(0.32)	(0.27)	(0.36)	(0.02)	
Employed in Services	0.10	0.07	0.13	-0.06***	2,190/1,186/990
	(0.29)	(0.25)	(0.34)	(0.02)	
Employed in Agriculture	0.03	0.05	0.00	0.05***	2,190/1,186/990
	(0.17)	(0.22)	(0.07)	(0.01)	
Social Security	0.07	0.04	0.10	-0.06***	2,190/1,186/990
	(0.25)	(0.20)	(0.30)	(0.02)	
Personal Income Index	-0.08	-0.08	-0.07	-0.02	2,190/1,186/990
	(0.44)	(0.43)	(0.45)	(0.03)	
Panel C: Marriage Market Outcomes					
Partner's Schooling	9.54	8.72	10.48	-1.76***	2,135/1,154/967
	(6.07)	(4.78)	(7.22)	(0.34)	
Partner is Employed	0.84	0.87	0.80	0.07***	2,190/1,186/990
	(0.37)	(0.34)	(0.40)	(0.02)	
Marriage Age†	20.16	20.00	20.40	-0.39**	1,530/927/591
	(2.59)	(2.62)	(2.52)	(0.17)	
Marriage Decision†	0.56	0.51	0.64	-0.12***	1,535/930/593
	(0.50)	(0.50)	(0.48)	(0.03)	
Partner witnessed violence towards his mother	0.30	0.32	0.29	0.03	1,601/874/717
	(0.46)	(0.47)	(0.45)	(0.03)	
Partner experienced violence from his family members	0.73	0.75	0.71	0.03	1,788/979/797
	(0.44)	(0.43)	(0.45)	(0.03)	
Asset Ownership Index	0.09	-0.01	0.19	-0.20***	2,190/1,186/990
	(0.40)	(0.39)	(0.39)	(0.02)	
Panel D: Gender and Domestic Violence Attitudes					
A woman should not argue with partner if she disagrees with hir	0.39	0.45	0.32	0.13***	2,184/1,183/987
	(0.49)	(0.50)	(0.47)	(0.03)	
A woman should be able to spend her money as she wills.	0.68	0.65	0.71	-0.06**	2,176/1,178/984
	(0.47)	(0.48)	(0.45)	(0.03)	
Men can beat their partners in certain situations.	0.10	0.12	0.08	0.04**	2,185/1,184/987
	(0.30)	(0.32)	(0.26)	(0.02)	
It may be necessary to beat children for discipline.	0.29	0.33	0.24	0.09***	2,181/1,181/986
	(0.45)	(0.47)	(0.43)	(0.02)	
Men should also do housework, e.g. cooking and cleaning.	0.71	0.67	0.76	-0.09***	2,182/1,180/988
	(0.45)	(0.47)	(0.43)	(0.02)	
Men in the family are responsible for a woman's behavior.	0.41	0.45	0.36	0.08***	2,155/1,167/974
	(0.49)	(0.50)	(0.48)	(0.03)	
It is a woman's duty to have sexual intercourse with her husband	0.22	0.26	0.18	0.08***	2,149/1,163/972
	(0.42)	(0.44)	(0.39)	(0.02)	
Gender attitudes index	0.05	-0.03	0.15	-0.18***	2,190/1,186/990
	(0.53)	(0.56)	(0.48)	(0.03)	
Panel E: Domestic Violence Outcomes					
Physical Violence Index	-0.19	-0.18	-0.20	0.02	2,180/1,183/983
	(0.57)	(0.56)	(0.59)	(0.03)	
Sexual Violence Index	-0.12	-0.12	-0.12	0.00	2,180/1,183/983
	(0.59)	(0.57)	(0.62)	(0.03)	
Psychological Violence Index 1	-0.15	-0.14	-0.15	0.02	2,180/1,183/983
	(0.71)	(0.73)	(0.69)	(0.04)	
Psychological Violence Index 2	0.03	0.04	0.04	-0.01	2,180/1,183/983
	(0.51)	(0.49)	(0.54)	(0.03)	
Financial Control Index	-0.11	-0.09	-0.13	0.03	1,954/1,095/846
	(0.70)	(0.72)	(0.67)	(0.04)	
Panel F: Covariates					
Rural Childhood Region	0.54	1.00	0.00	1.00***	2,176/1,186/990
	(0.50)	(0.00)	(0.00)	(0.00)	
Lives in a Village	0.20	0.34	0.03	0.31***	2,190/1,186/990
	(0.40)	(0.47)	(0.18)	(0.02)	
Non-Turkish Speaker	0.00	0.01	0.00	0.01**	2,183/1,184/985
	(0.07)	(0.08)	(0.04)	(0.00)	
Mother Experienced Domestic Violence	0.26	0.29	0.24	0.05**	2,104/1,139/951
	(0.44)	(0.45)	(0.42)	(0.02)	

Notes: The table presents the mean, standard deviation, and number of observations from the 2008 National Survey on Domestic Violence against Women in Turkey. The sample includes women who ever had a relationship and are born within 60 months before or after January 1987. The variables with † sign are available only for ever-married women. Columns 1–3 report means and standard deviations in parentheses. Column 4 reports differences of group means between columns 2 and 3 with standard errors in parentheses. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively. Observation numbers are reported either at the end of each panel if the variables within the panel have the same number of observations, or below the standard deviation for each variable separately if they differ within a panel. Column 1 has 14 observations less than column 4 due to 14 missing observations in region of childhood variable. The variables are described in Appendix A.

TABLE 2. RD TREATMENT EFFECTS ON SCHOOLING

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Outcome	Linear RD $\hat{h}$ bandwidth	Quadratic RD $\hat{h}$ bandwidth	Linear RD $\hat{h}/2$ bandwidth	Linear RD $2\hat{h}$ bandwidth	Bandwidth	N	Mean
Panel A: All Women Sample							
Years of schooling	0.863***	0.789*	0.804*	1.303***	54	2,245	8.84
	(0.317)	(0.466)	(0.434)	(0.247)			
Completed education:							
Junior high school	0.193***	0.112*	0.141**	0.211***	69	2,941	0.68
	(0.042)	(0.065)	(0.059)	(0.032)			
High school	0.135***	0.116	0.035	0.297***	45	1,865	0.46
	(0.049)	(0.070)	(0.062)	(0.044)			
Primary school	-0.014	0.000	0.001	-0.024	92	3,822	0.96
	(0.018)	(0.028)	(0.025)	(0.016)			
Panel B: Women Who Ever Had a Relationship Sample							
Years of schooling	1.363***	1.157**	1.063**	1.403***	61	2,082	8.80
	(0.322)	(0.462)	(0.435)	(0.265)			
Completed education:							
Junior high school	0.233***	0.193***	0.208***	0.233***	77	2,600	0.68
	(0.042)	(0.068)	(0.063)	(0.034)			
High school	0.185***	0.151*	0.074	0.314***	44	1,475	0.45
	(0.054)	(0.077)	(0.066)	(0.049)			
Primary school	-0.006	0.031	0.052	-0.017	69	2,349	0.96
	(0.024)	(0.036)	(0.032)	(0.021)			

Notes: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey. Columns (1) and (2) report local RD regessions with linear and quadratic polynomials in the month-year-of-birth using optimal bandwidth $\hat{h}$, and columns (3) and (4) report local RD regressions with linear polynomials in the month-year-of-birth using optimal bandwidth $\hat{h}/2$ and $2\hat{h}$, respectively. The optimal bandwidth, reported in column (5), is estimated by using the Imbens and Kalyanaraman (2009) algorithm. Column (6) reports the number of observations used in estimations with the optimal bandwidth $\hat{h}$, and column (7) reports the outcome mean within the the optimal bandwidth $\hat{h}$. Panel A reports the results for the whole sample, and panel B reports them for the sample of women who ever had a relationship. The dependent variables in first rows in each panel is number of years completed in school. The dependent variables listed under 'Completed education' are dummy variables taking the value of one if the respondent completed junior high school or above, high school or above, and primary school or above, respectively. All specifications control for a dummy variables for whether the respondent has grown up in a rural location, a dummy variable for whether the respondent's interview language differs from Turkish, month-of-birth fixed effects, and region fixed effects. Standard errors are clustered at the month-year cohort level.

TABLE 3. RD TREATMENT EFFECTS ON SCHOOLING BY REGION OF CHILDHOOD

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Outcome	Linear RD $\hat{h}$ bandwidth	Quadratic RD $\hat{h}$ bandwidth	Linear RD $\hat{h}/2$ bandwidth	Linear RD $2\hat{h}$ bandwidth	Bandwidth	N	Mean
Panel A: Rural Childhood Region							
Years of schooling	1.829***	1.742***	2.168***	1.713***	74	1,333	8.72
	(0.371)	(0.570)	(0.522)	(0.318)			
Completed education:							
Junior high school	0.342***	0.300***	0.356***	0.339***	100	1,753	0.65
	(0.053)	(0.087)	(0.078)	(0.046)			
Panel B: Urban Childhood Region							
Years of schooling	0.614	0.218	0.423	0.804**	60	941	8.81
	(0.420)	(0.559)	(0.650)	(0.344)			
Completed education:							
Junior high school	0.093	0.036	0.072	0.092**	76	1,191	0.68
	(0.057)	(0.080)	(0.080)	(0.044)			

Notes: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey, using the sample of women who ever had a relationship. Columns (1) and (2) report local RD regessions with linear and quadratic polynomials in the month-year-of-birth using optimal bandwidth $\hat{h}$, and columns (3) and (4) report local RD regressions with linear polynomials in the month-year-of-birth using optimal bandwidth $\hat{h}/2$ and $2\hat{h}$, respectively. The optimal bandwidth, reported in column (5), is estimated by using the Imbens and Kalyanaraman (2009) algorithm. Column (6) reports the number of observations used in estimations with the optimal bandwidth $\hat{h}$, and column (7) reports the outcome mean within the the optimal bandwidth $\hat{h}$. Panel A reports the results for the whole sample, and panel B reports them for the sample of women who ever had a relationship. The dependent variables in first rows in each panel is number of years completed in school. The dependent variables listed under 'Completed education' are dummy variables taking the value of one if the respondent completed junior high school or above, high school or above, and primary school or above, respectively. All specifications control for a dummy variables for whether the respondent has grown up in a rural location, a dummy variable for whether the respondent's interview language differs from Turkish, month-of-birth fixed effects, and region fixed effects. Standard errors are clustered at the month-year cohort level.

TABLE 4: EDUCATION EFFECTS ON LABOR MARKET OUTCOMES BY CHILDHOOD REGION

	Overall sample			**Rural**		**Urban**				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Outcome	OLS ĥ bandwidth	Linear RD ĥ bandwidth	Linear RD-2SLS ĥ bandwidth	Linear RD ĥ bandwidth	Linear RD-2SLS ĥ bandwidth	Linear RD ĥ bandwidth	Linear RD-2SLS ĥ bandwidth	Bandwidth (Overall/Rural/Urban)	N (Overall/Rural/Urban)	Mean (Overall/Rural/Urban)
Employment:										
Employed	0.013***	0.057**	0.037**	0.082***	0.045**	0.058	0.081	91/78/115	3,171/1,499/1,716	0.14/0.14/0.15
	(0.003)	(0.026)	(0.018)	(0.031)	(0.020)	(0.047)	(0.068)			
Non-agriculture	0.015***	0.054**	0.038**	0.096***	0.052***	0.036	0.049	101/96/94	3,438/1,843/1,453	0.11/0.09/0.14
	(0.002)	(0.025)	(0.019)	(0.031)	(0.019)	(0.050)	(0.065)			
Services	0.017***	0.027	0.020	0.077**	0.043**	-0.000	0.000	143/84/94	4,589/1,615/1,465	0.10/0.07/0.12
	(0.002)	(0.020)	(0.016)	(0.030)	(0.019)	(0.044)	(0.057)			
Agriculture	-0.006***	0.001	0.001	-0.013	-0.008	0.022	0.030	75/68/70	2,676/1,331/1,136	0.06/0.10/0.02
	(0.002)	(0.015)	(0.011)	(0.028)	(0.016)	(0.017)	(0.029)			
Social security	0.018***	0.024	0.017	0.036*	0.021*	0.045	0.057	120/99/110	4,028/1,886/1,662	0.07/0.05/0.09
	(0.002)	(0.023)	(0.016)	(0.021)	(0.011)	(0.044)	(0.054)			
Personal income index	0.024***	0.083*	0.057*	0.116***	0.066**	0.046	0.061	98/112/75	3,381/2,083/1,195	-0.07/-0.08/-0.07
	(0.003)	(0.043)	(0.031)	(0.044)	(0.027)	(0.072)	(0.096)			

Notes: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey, using the sample women who ever had a relationship. Column (1) reports OLS results using years of schooling as the independent variable for an optimal bandwidth ĥ estimated by the Imbens and Kalyanaraman algorithm. Columns (2) and (3) report reduced-form RD treatment effects and two-stage least squares RD treatment effects (by using treatment as an instrument for years of schooling) of being born after January 1987 with a linear control function in month-year-of-birth on each side of the discontinuity, respectively. Columns (4) and (5) reports results for the subsample of respondents whose childhood region of residence was rural, while columns (6) and (7) do the same for respondents whose childhood region of residence was urban. The optimal bandwidth, reported in column (8), is estimated by using the Imbens and Kalyanaraman (2009) algorithm. Column (9) reports the number of observations used in estimations, and column (10) reports the outcome means for each sample. The dependent variables include the following labor market outcomes, which are dummy variables equal to one if the responded reports that she is employed in: any sector, non-agricultural sectors (services and industry), services, agriculture; a dummy variable equal to one if the respondent reports that she has social security benefits from her job; and a personal income index that is constructed by averaging z-scores of indicator variables that take the value of one if the respondent earns a personal income from the following six sources: rent from owning a land, rent from owning a house, income from owning a company or workplace, income from owning a vehicle, having money in a bank, and income from other asset ownership. All specifications control for a dummy variables for whether the respondent has grown up in a rural location, a dummy variable for whether the respondent's interview language differs from Turkish, month-of-birth fixed effects, and region fixed effects. Standard errors are clustered at the month-year cohort level.

TABLE 5: EDUCATION EFFECTS ON MARRIAGE MARKET OUTCOMES BY CHILDHOOD REGION

	Overall sample			**Rural**		**Urban**				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	OLS	Linear RD	Linear RD-2SLS	Linear RD	Linear RD-2SLS	Linear RD	Linear RD-2SLS	Bandwidth	N	Mean
Outcome	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	(Overall/Rural/Urban)	(Overall/Rural/Urban)	(Overall/Rural/Urban)
Partner's Schooling	0.523***	-0.319	-0.179	-0.223	-0.074	-0.258	-0.112	69/100/65	2,408/1,834/1,010	9.52/8.60/10.47
	(0.059)	(0.584)	(0.472)	(0.589)	(0.334)	(0.853)	(1.328)			
Partner is Employed	-0.030***	-0.020	-0.020	-0.007	-0.005	0.006	0.007	53/46/117	1,864/880/1,725	0.84/0.88/0.83
	(0.004)	(0.038)	(0.029)	(0.052)	(0.027)	(0.053)	(0.070)			
Marriage age	0.233***	0.004	0.025	-0.067	-0.046	-0.133	-0.000	68/79/57	1,674/1,229/541	20.23/20.25/20.36
	(0.029)	(0.224)	(0.234)	(0.326)	(0.285)	(0.317)	(0.618)			
Marriage decision	0.043***	0.031	0.019	-0.023	-0.036	0.118	0.239	88/94/58	2,278/1,488/555	0.56/0.50/0.63
	(0.004)	(0.048)	(0.044)	(0.063)	(0.048)	(0.078)	(0.292)			
Partner witnessed violence	-0.013***	0.007	-0.014	0.014	-0.019	-0.002	-0.007	98/109/99	2,395/1,461/1,088	0.23/0.23/0.24
towards his mother	(0.004)	(0.044)	(0.030)	(0.062)	(0.041)	(0.065)	(0.070)			
Partner experienced violence	0.003	-0.068	-0.043	-0.056	-0.028	-0.070	-0.086	86/60/93	2,479/978/1,186	0.74/0.75/0.72
from his family members	(0.004)	(0.054)	(0.033)	(0.067)	(0.042)	(0.070)	(0.076)			
Asset ownership index	0.049***	0.101***	0.072***	0.076*	0.047**	0.101	0.171	92/143/64	3,198/2,613/1,025	0.10/0.01/0.19
	(0.003)	(0.038)	(0.024)	(0.044)	(0.023)	(0.062)	(0.137)			

Notes: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey, using the sample women who ever had a relationship. Column (1) reports OLS results using years of schooling as the independent variable for an optimal bandwidth $\hat{h}$ estimated by the Imbens and Kalyanaraman algorithm. Columns (2) and (3) report reduced-form RD treatment effects and two-stage least squares RD treatment effects (by using treatment as an instrument for years of schooling) of being born after January 1987 with a linear control function in month-year-of-birth on each side of the discontinuity, respectively. Columns (4) and (5) reports results for the subsample of respondents whose childhood region of residence was rural, while columns (6) and (7) do the same for respondents whose childhood region of residence was urban. The optimal bandwidth, reported in column (8), is estimated by using the Imbens and Kalyanaraman (2009) algorithm. Column (9) reports the number of observations used in estimations, and column (10) reports the outcome means for each sample. The dependent variables include the following marriage market outcomes. The first row reports the results for the years of schooling completed by the respondent's partner, and the second reports the results for the dummy variable for whether the respondent reports that her partner is employed. The following rows report results for the respondent's age of marriage, a dummy variable equal to one if the respondent reports that she decided on her marriage, and an asset index that is constructed from averaging z-scores of dummy variables equal to one if the respondent's household owns one of the 24 assets listed in Appendix A. All specifications control for a dummy variables for whether the respondent has grown up in a rural location, a dummy variable for whether the respondent's interview language differs from Turkish, month-of-birth fixed effects, and region fixed effects. Standard errors are clustered at the month-year cohort level.

TABLE 6: EDUCATION EFFECTS ON GENDER AND DOMESTIC VIOLENCE ATTITUDES BY CHILDHOOD REGION

	Overall sample			**Rural**		**Urban**				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	OLS	Linear RD	Linear RD-2SLS	Linear RD	Linear RD-2SLS	Linear RD	Linear RD-2SLS	Bandwidth	N	Mean
Outcome	ĥ bandwidth	ĥ bandwidth	ĥ bandwidth	ĥ bandwidth	ĥ bandwidth	ĥ bandwidth	ĥ bandwidth	(Overall/Rural/Urban)	(Overall/Rural/Urban)	(Overall/Rural/Urban)
Respondent reports that she agrees with the statement:										
A woman should not argue with partner if she disagrees with h	-0.052***	-0.009	-0.006	-0.058	-0.038	0.080	0.174	72/83/63	2,583/1,611/1,020	0.40/0.45/0.32
	(0.003)	(0.053)	(0.039)	(0.061)	(0.033)	(0.074)	(0.239)			
A woman should be able to spend her money as she wills.	0.013***	-0.034	-0.022	-0.041	-0.025	-0.082	-0.098	62/70/71	2,182/1,362/1,129	0.68/0.65/0.72
	(0.004)	(0.048)	(0.037)	(0.065)	(0.037)	(0.058)	(0.085)			
Men can beat their partners in certain situations.	-0.013***	0.000	-0.002	0.004	-0.002	-0.016	-0.017	73/63/95	2,610/1,207/1,476	0.10/0.12/0.07
	(0.002)	(0.027)	(0.020)	(0.039)	(0.022)	(0.034)	(0.047)			
It may be necessary to beat children for discipline.	-0.021***	-0.030	-0.013	0.016	0.015	-0.097	-0.204	69/99/61	2,424/1,859/981	0.29/0.34/0.24
	(0.004)	(0.040)	(0.029)	(0.056)	(0.032)	(0.062)	(0.238)			
Men should also do housework, e.g. cooking and cleaning.	0.032***	0.093**	0.081**	0.142**	0.083***	0.059	0.106	67/53/104	2,386/1,027/1,577	0.71/0.66/0.75
	(0.003)	(0.040)	(0.032)	(0.064)	(0.031)	(0.050)	(0.085)			
Men in the family are responsible for a woman's behavior.	-0.038***	-0.094**	-0.072**	-0.062	-0.036	-0.111	-0.131	114/95/83	3,773/1,775/1,302	0.41/0.46/0.36
	(0.003)	(0.044)	(0.030)	(0.056)	(0.027)	(0.072)	(0.085)			
It is a woman's duty to have sexual intercourse with her husba	-0.024***	-0.012	-0.002	-0.017	-0.004	0.015	0.033	74/73/94	2,595/1,395/1,429	0.22/0.25/0.17
	(0.003)	(0.045)	(0.035)	(0.064)	(0.036)	(0.054)	(0.080)			
Gender attitudes index	0.061***	0.053	0.040	0.084	0.044	0.066	0.079	74/63/120	2,642/1,209/1,758	0.05/-0.03/0.16
	(0.004)	(0.053)	(0.037)	(0.079)	(0.042)	(0.061)	(0.072)			

Notes: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey, using the sample women who ever had a relationship. Column (1) reports OLS results using years of schooling as the independent variable for an optimal bandwidth ĥ estimated by the Imbens and Kalyanaraman algorithm. Columns (2) and (3) report reduced-form RD treatment effects and two-stage least squares RD treatment effects (by using treatment as an instrument for years of schooling) of being born after January 1987 with a linear control function in month-year-of-birth on each side of the discontinuity, respectively. Columns (4) and (5) reports results for the subsample of respondents whose childhood region of residence was rural, while columns (6) and (7) do the same for respondents whose childhood region of residence was urban. The optimal bandwidth, reported in column (8), is estimated by using the Imbens and Kalyanaraman (2009) algorithm. Column (9) reports the number of observations used in estimations, and column (10) reports the outcome means for each sample. The dependent variables in the first seven rows are dummy variables equal to one if the respondent reports that she agrees with the statements listed in the table. The dependent variable in the last row is a gender attitudes index, which is a z-score constructed by averaging the z-scores from each of the 7 attitudes indicators (i.e. dummy variables equal to one if the respondent reports that she agrees with the statements listed in the table). All specifications control for a dummy variables for whether the respondent has grown up in a rural location, a dummy variable for whether the respondent's interview language differs from Turkish, month-of-birth fixed effects, and region fixed effects. Standard errors are clustered at the month-year cohort level.

TABLE 7: EDUCATION EFFECTS ON DOMESTIC VIOLENCE OUTCOMES BY CHILDHOOD REGION

	Overall sample			**Rural**		**Urban**				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	OLS	Linear RD	Linear RD-2SLS	Linear RD	Linear RD-2SLS	Linear RD	Linear RD-2SLS	Bandwidth	N	Mean
Outcome	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	(Overall/Rural/Urban)	(Overall/Rural/Urban)	(Overall/Rural/Urban)
Physical violence index	-0.026***	0.029	0.027	0.048	0.020	0.013	0.031	64/94/59	2,277/1,773/944	-0.18/-0.14/-0.21
	(0.004)	(0.060)	(0.049)	(0.061)	(0.035)	(0.090)	(0.150)			
Sexual violence index	-0.013***	0.048	0.034	0.080	0.029	0.047	0.114	59/140/57	2,116/2,539/907	-0.12/-0.09/-0.12
	(0.005)	(0.063)	(0.053)	(0.063)	(0.037)	(0.086)	(0.190)			
Psychological violence index 1	-0.011**	0.110	0.091	0.191**	0.103*	0.014	0.035	67/92/62	2,347/1,737/992	-0.15/-0.11/-0.15
	(0.005)	(0.077)	(0.068)	(0.092)	(0.054)	(0.103)	(0.146)			
Psychological violence index 2	-0.020***	0.038	0.023	0.123**	0.062*	-0.068	-0.086	82/75/66	2,905/1,462/1,061	0.03/0.02/0.05
	(0.004)	(0.044)	(0.033)	(0.057)	(0.037)	(0.079)	(0.120)			
Financial control index	-0.017***	0.122	0.090	0.235*	0.150*	-0.028	-0.030	110/71/81	3,392/1,266/1,104	-0.07/-0.09/-0.10
	(0.005)	(0.080)	(0.061)	(0.123)	(0.085)	(0.093)	(0.091)			

Notes: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey, using the sample women who ever had a relationship. Column (1) reports OLS results using years of schooling as the independent variable for an optimal bandwidth $\hat{h}$ estimated by the Imbens and Kalyanaraman algorithm. Columns (2) and (3) report reduced-form RD treatment effects and two-stage least squares RD treatment effects (by using treatment as an instrument for years of schooling) of being born after January 1987 with a linear control function in month-year-of-birth on each side of the discontinuity, respectively. Columns (4) and (5) reports results for the subsample of respondents whose childhood region of residence was rural, while columns (6) and (7) do the same for respondents whose childhood region of residence was urban. The optimal bandwidth, reported in column (8), is estimated by using the Imbens and Kalyanaraman (2009) algorithm. Column (9) reports the number of observations used in estimations, and column (10) reports the outcome means for each sample. The dependent variables are z-score indices constructed from components of each dimension of domestic violence. The physical violence index is a z-score constructed by averaging the z-scores from each of the 6 physical violence indicators, including dummy variables that equal one if the respondent reports that she experienced violent acts of (i) slapping or throwing an object that would hurt; (ii) pushing, shoving, or pulling hair; (iii) hitting with his fist or in a way that hurts; (iv) kicking, pulling on the ground, or beating; (v) choking or burning; (vi) and physical violence during pregnancy. The sexual violence index is a z-score constructed by averaging the z-scores from the following indicator variables: (i) forced sexual acts, (ii) forced sexual relation due to the fear of what the partner would do otherwise, and (iii) humiliating sexual acts. The psychological violence index 1 is a z-score constructed by averaging the z-scores from each of the following indicator variables: (i) insulting, (ii) humiliating, and (iii) scaring or threatening. The psychological violence index 2 is a z-score constructed by averaging the z-scores from each of the following indicator variables: (i) insulting, (ii) humiliating, (iii) scaring or threatening, (iv) trying to keep her away from her friends, (v) trying to prevent contact from her family, (vi) insisting on knowing her location, (vii) ignoring her, (viii) getting angry if she speaks to other men, (ix) being suspicious that she cheats on him, (x) wanting his permission before she seeks healthcare, and (xi) intervening her clothes. The financial control index is a z-score constructed by averaging the z-scores from each of the following indicator variables: (i) take income from her despite her disapproval, (ii) refuse to give her money for household spending. All specifications control for a dummy variables for whether the respondent has grown up in a rural location, a dummy variable for whether the respondent's interview language differs from Turkish, month-of-birth fixed effects, and region fixed effects. Standard errors are clustered at the month-year cohort level.

APPENDIX B: ADDITIONAL TABLES

TABLE A1: SUMMARY STATISTICS OF 16-26 YEAR-OLD WOMEN

	Relationship Status			Difference	
	All	Ever had a relationship	Never had a relationship	(2) – (3)	
	(1)	(2)	(3)	(4)	(5)
	Mean	Mean	Mean	Est.	Observations
	(SD)	(SD)	(SD)	(S.E.)	(All/Ever/Never)
Panel A: Education					
Schooling	8.79	8.51	9.91	-1.41***	2,615/2,078/537
	(3.25)	(3.32)	(2.69)	(0.16)	
Completed Junior High School	0.68	0.63	0.87	-0.24***	2,615/2,078/537
	(0.47)	(0.48)	(0.34)	(0.02)	
Completed High School	0.39	0.38	0.42	-0.04	2,615/2,078/537
	(0.49)	(0.49)	(0.49)	(0.03)	
Completed Primary School	0.96	0.95	0.97	-0.02**	2,615/2,078/537
	(0.20)	(0.21)	(0.16)	(0.01)	
Panel B: Labor Market Outcomes					
Employed	0.15	0.14	0.19	-0.05**	2,753/2,190/563
	(0.36)	(0.35)	(0.39)	(0.02)	
Employed in Non-agriculture	0.11	0.11	0.12	-0.01	2,753/2,190/563
	(0.32)	(0.32)	(0.33)	(0.02)	
Employed in Services	0.10	0.10	0.11	-0.01	2,753/2,190/563
	(0.30)	(0.29)	(0.31)	(0.02)	
Employed in Agriculture	0.04	0.03	0.07	-0.04***	2,753/2,190/563
	0.19	0.17	0.25	(0.01)	
Social Security	0.06	0.07	0.05	0.01	2,753/2,190/563
	(0.25)	(0.25)	(0.22)	(0.02)	
Personal Income Index	-0.09	-0.08	-0.14	0.07***	2,753/2,190/563
	(0.42)	(0.44)	(0.35)	(0.03)	
Panel C: Marriage Market Outcomes					
Asset Ownership Index	0.09	0.09	0.12	-0.04	2,753/2,190/563
	(0.41)	(0.40)	(0.41)	(0.02)	
Panel D: Gender and Domestic Violence Attitudes					
A woman should not argue with partner if she disagrees with him.	0.39	0.39	0.37	0.02	2,742/2,184/558
	(0.49)	(0.49)	(0.48)	(0.03)	
A woman should be able to spend her money as she wills.	0.68	0.68	0.67	0.01	2,733/2,176/557
	(0.47)	(0.47)	(0.47)	(0.03)	
Men can beat their partners in certain situations.	0.10	0.10	0.09	0.01	2,746/2,185/561
	(0.29)	(0.30)	(0.28)	(0.02)	
It may be necessary to beat children for discipline.	0.28	0.29	0.24	0.05**	2,739/2,181/558
	(0.45)	(0.45)	(0.42)	(0.03)	
Men should also do housework, e.g. cooking and cleaning.	0.72	0.71	0.76	-0.05**	2,745/2,182/563
	(0.45)	(0.45)	(0.43)	(0.03)	
Men in the family are responsible for a woman's behavior.	0.40	0.41	0.36	0.05*	2,709/2,155/554
	(0.49)	(0.49)	(0.48)	(0.03)	
It is a woman's duty to have sexual intercourse with her husband.	0.21	0.22	0.15	0.07***	2,659/2,149/510
	(0.41)	(0.42)	(0.36)	(0.02)	
Gender attitudes index	0.07	0.05	0.13	-0.08***	2,753/2,190/563
	(0.53)	(0.53)	(0.50)	(0.03)	
Panel E: Covariates					
Rural Childhood Region	0.52	0.54	0.43	0.12***	2,739/2,176/563
	(0.50)	(0.50)	(0.50)	(0.03)	
Lives in a Village	0.22	0.20	0.31	-0.11***	2,753/2,190/563
	(0.42)	(0.40)	(0.46)	(0.02)	
Non-Turkish Speaker	0.00	0.00	0.01	0.00	2,745/2,183/562
	(0.07)	(0.07)	(0.07)	(0.00)	
Mother Experienced Domestic Violence	0.25	0.26	0.20	0.06**	2,590/2,104/486
	(0.43)	(0.44)	(0.40)	(0.03)	

Notes: The table presents the mean, standard deviation, and number of observations from the 2008 National Survey on Domestic Violence against Women in Turkey. The sample includes women who were born within 60 months before or after January 1987. Columns 1–3 report means and standard deviations in parentheses. Column 4 reports differences of group means between columns 2 and 3 with standard errors in parentheses. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively. The variables are described in Appendix A.

TABLE A2: SUMMARY STATISTICS OF 16-26 YEAR-OLD WOMEN WHO EVER HAD A RELATIONSHIP

	Region of Childhood			Difference	
	All	Rural	Urban	(2) – (3)	
	(1)	(2)	(3)	(4)	(5)
	Mean	Mean	Mean	Est.	Observations
	(S.D.)	(S.D.)	(S.D.)	(S.E.)	(All/Rural/Urban)
Panel A: Physical Violence					
Slap or throw an object that would hurt	0.21	0.24	0.18	0.06***	2,180/1,183/983
	(0.41)	(0.43)	(0.39)	(0.02)	
Push, shove, or pull hair	0.11	0.13	0.10	0.03	2,180/1,183/983
	(0.32)	(0.33)	(0.30)	(0.02)	
Hit with his fist or in a way that hurts	0.05	0.05	0.05	0.00	2,179/1,182/983
	(0.22)	(0.22)	(0.23)	(0.01)	
Kick, pull on the ground, or beat	0.05	0.05	0.05	0.01	2,180/1,183/983
	(0.22)	(0.23)	(0.21)	(0.01)	
Choke or burn	0.03	0.03	0.03	0.01	2,180/1,183/983
	(0.17)	(0.16)	(0.18)	(0.01)	
Physical violence during pregnancy	0.09	0.07	0.12	0.05**	1,302/784/507
	(0.29)	(0.26)	(0.33)	(0.02)	
Physical violence	0.24	0.27	0.20	0.07***	2,190/1,186/990
	(0.42)	(0.44)	(0.40)	(0.02)	
Panel B: Sexual Violence					
Forced sexual act	0.04	0.04	0.05	-0.01	2,180/1,183/983
	(0.21)	(0.20)	(0.22)	(0.01)	
Forced sex due to fear	0.06	0.07	0.05	0.01	2,180/1,183/983
	(0.24)	(0.25)	(0.22)	(0.01)	
Humiliated sexual act	0.13	0.15	0.12	0.03	2,180/1,183/983
	(0.34)	(0.36)	(0.33)	(0.02)	
Sexual violence	0.09	0.09	0.08	0.01	2,190/1,186/990
	(0.28)	(0.29)	(0.27)	(0.01)	
Panel C: Psychological Violence					
Insult	0.26	0.27	0.25	0.02	2,180/1,183/983
	(0.44)	(0.45)	(0.43)	(0.02)	
Humiliate	0.13	0.15	0.12	0.03	2,179/1,183/982
	(0.34)	(0.36)	(0.33)	(0.02)	
Threaten or scare	0.15	0.14	0.17	-0.03	2,180/1,183/983
	(0.36)	(0.35)	(0.37)	(0.02)	
Psychological violence 1	0.33	0.33	0.33	0.00	2,190/1,186/990
	(0.47)	(0.47)	(0.47)	(0.03)	
Try to keep her away from her friends	0.20	0.18	0.23	-0.05**	2,178/1,182/982
	(0.40)	(0.38)	(0.42)	(0.02)	
Try to prevent contact from her family	0.09	0.09	0.09	0.00	2,176/1,181/981
	(0.29)	(0.29)	(0.29)	(0.01)	
Insist on knowing her location	0.78	0.77	0.81	0.04*	2,174/1,181/979
	(0.41)	(0.42)	(0.39)	(0.02)	
Ignore her	0.14	0.12	0.15	0.03	2,175/1,180/981
	(0.34)	(0.33)	(0.36)	(0.02)	
Get angry if she speaks to other men	0.60	0.62	0.58	0.04	2,150/1,165/971
	(0.49)	(0.49)	(0.49)	(0.03)	
Be suspicious that she cheats on him	0.07	0.06	0.08	0.02	2,147/1,166/967
	(0.25)	(0.24)	(0.27)	(0.01)	
Want his permission before seeking health care	0.25	0.29	0.21	0.08***	2,162/1,173/975
	(0.43)	(0.45)	(0.41)	(0.02)	
Intervene her clothes	0.49	0.50	0.48	0.03	2,177/1,182/981
	(0.50)	(0.50)	(0.50)	(0.03)	
Psychological violence 2	0.92	0.93	0.92	0.00	2,190/1,186/990
	(0.27)	(0.26)	(0.27)	(0.01)	
Panel D: Financial Control					
Take her income despite her disapproval	0.03	0.03	0.03	0.01	1,431/794/626
	(0.17)	(0.18)	(0.16)	(0.01)	
Refuse to give money for household spending	0.05	0.05	0.05	0.01	1,777/1,020/744
	(0.22)	(0.23)	(0.21)	(0.01)	
Financial control	0.06	0.06	0.05	0.01	1,954/1,095/846
	(0.23)	(0.24)	(0.22)	(0.01)	

Notes: The table presents the mean, standard deviation, and number of observations from the 2008 National Survey on Domestic Violence against Women in Turkey. The sample includes women who ever had a relationship and are born within 60 months before or after January 1987. The variables are described in Appendix A.

TABLE A3: ROBUSTNESS: RD TREATMENT EFFECTS ON SCHOOLING USING A STATIC BANDWIDTH

	Overall		**Rural**		**Urban**		**Difference**	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Linear RD	Quadratic RD	Linear RD	Quadratic RD	Linear RD	Quadratic RD	(3)-(5)	(4)-(6)
Outcome / statistic	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	p-value	p-value
Years of schooling	1.278***	1.218**	1.776***	1.922***	0.532	0.373	0.02	0.03
	(0.325)	(0.466)	(0.415)	(0.586)	(0.429)	(0.571)		
Mean	8.51	8.51	7.66	7.66	9.48	9.48		
Bandwidth	61	61	61	61	61	61		
N	2,057	2,057	1,100	1,100	957	957		
Completed junior high school	0.213***	0.172**	0.326***	0.303***	0.067	0.021	0.01	0.04
	(0.048)	(0.076)	(0.067)	(0.109)	(0.064)	(0.090)		
Mean	0.63	0.63	0.53	0.53	0.75	0.75		
Bandwidth	61	61	61	61	61	61		
N	2,057	2,057	1,100	1,100	957	957		

Notes: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey, using the sample of women who ever had a relationship. The bandwidth is 61 months in all regressions, which is the optimal bandwidth $\hat{h}$ estimated by the Imbens and Kalyanaraman (2009) algorithm when years of schooling is the independent variable. Columns (1) and (2) report reduced-form RD treatment effects of being born after January 1987 with linear and quadratic control functions in month-year-of-birth on each side of the discontinuity for the overall sample. Columns (3) and (4) report the same for the sample of women grown up in rural areas, and columns (5) and (6) report them for the sample of women grown up in urban areas. Columns (7) and (8) report the p-value for the test of equality between treatment effects for different subsamples reported in columns (3) and (5), and (4) and (6), respectively. Column (9) reports the number of observations used in estimations with different subsamples, and column (10) reports the outcome mean for different subsamples. The dependent variables include the years of schooling that the respondent completed, and a dummy variable equal to 1 if the respondent completed junior high school or above. All specifications control for a dummy variables for whether the respondent has grown up in a rural location, a dummy variable for whether the respondent's interview language differs from Turkish, month-of-birth fixed effects, and region fixed effects. Standard errors are clustered at the month-year cohort level.

TABLE A4: ROBUSTNESS: EDUCATION EFFECTS ON LABOR MARKET OUTCOMES BY CHILDHOOD REGION USING A STATIC BANDWIDTH

	Overall sample			**Rural**		**Urban**		**Difference**			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Outcome	OLS ĥ bandwidth	Linear RD ĥ bandwidth	Linear RD-2SLS ĥ bandwidth	Linear RD ĥ bandwidth	Linear RD-2SLS ĥ bandwidth	Linear RD ĥ bandwidth	Linear RD-2SLS ĥ bandwidth	(4)-(6) p-value	ĥ	N (Overall/Rural/Urban)	Mean (Overall/Rural/Urban)
Employment:											
Employed	0.012***	0.061*	0.048*	0.081**	0.044**	0.045	0.090	0.63	61	2,170/1,184/985	0.14/0.13/0.15
	(0.003)	(0.032)	(0.028)	(0.035)	(0.022)	(0.063)	(0.123)				
Non-agriculture	0.014***	0.064**	0.052*	0.089***	0.050**	0.040	0.081	0.51	61	2,170/1,184/985	0.11/0.08/0.15
	(0.003)	(0.030)	(0.027)	(0.032)	(0.021)	(0.062)	(0.119)				
Services	0.014***	0.027	0.021	0.054*	0.028	0.000	0.003	0.42	61	2,170/1,184/985	0.10/0.07/0.13
	(0.003)	(0.028)	(0.023)	(0.031)	(0.018)	(0.057)	(0.105)				
Agriculture	-0.007***	-0.003	-0.002	-0.002	-0.000	0.002	0.004	0.91	61	2,170/1,184/985	0.06/0.10/0.02
	(0.002)	(0.017)	(0.014)	(0.029)	(0.017)	(0.018)	(0.033)				
Social security	0.014***	0.026	0.022	0.033	0.019	0.029	0.060	0.95	61	2,170/1,184/985	0.07/0.04/0.10
	(0.003)	(0.029)	(0.024)	(0.024)	(0.014)	(0.056)	(0.106)				
Personal income index	0.023***	0.082*	0.063*	0.111**	0.059**	0.026	0.049	0.37	61	2,170/1,184/985	-0.07/-0.08/-0.07
	(0.004)	(0.044)	(0.038)	(0.046)	(0.028)	(0.079)	(0.144)				

Notes: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey, using the sample women who ever had a relationship. The bandwidth is 61 months in all regressions, which is the optimal bandwidth ĥ estimated by the Imbens and Kalyanaraman (2009) algorithm when years of schooling is the independent variable. Column (1) reports OLS results using years of schooling as the independent variable for an optimal bandwidth ĥ estimated by the Imbens and Kalyanaraman algorithm. Columns (2) and (3) report reduced-form RD treatment effects and two-stage least squares RD treatment effects (by using treatment as an instrument for years of schooling) of being born after January 1987 with a linear control function in month-year-of-birth on each side of the discontinuity, respectively. Columns (4) and (5) reports results for the subsample of respondents whose childhood region of residence was rural, while columns (6) and (7) do the same for respondents whose childhood region of residence was urban. Column (8) reports the p-value for the test of equality between treatment effects for different subsamples reported in columns (4) and (6). Column (10) reports the number of observations used in estimations, and column (11) reports the outcome means for each sample. The dependent variables include the following labor market outcomes, which are dummy variables equal to one if the responded reports that she is employed in: any sector, non-agricultural sectors (services and industry), services, agriculture; a dummy variable equal to one if the respondent reports that she has social security benefits from her job; and a personal income index that is constructed by averaging z-scores of indicator variables that take the value of one if the respondent earns a personal income from the following six sources: rent from owning a land, rent from owning a house, income from owning a company or workplace, income from owning a vehicle, having money in a bank, and income from other asset ownership. All specifications control for a dummy variables for whether the respondent has grown up in a rural location, a dummy variable for whether the respondent's interview language differs from Turkish, month-of-birth fixed effects, and region fixed effects. Standard errors are clustered at the month-year cohort level.

TABLE A5: ROBUSTNESS: EDUCATION EFFECTS ON MARRIAGE MARKET OUTCOMES BY CHILDHOOD REGION USING A STATIC BANDWIDTH

	Overall sample			**Rural**		**Urban**		**Difference**			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	OLS	Linear RD	Linear RD-2SLS	Linear RD	Linear RD-2SLS	Linear RD	Linear RD-2SLS	(4)-(6)		N	Mean
Outcome	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	$\hat{h}$ bandwidth	p-value	$\hat{h}$	(Overall/Rural/Urban)	(Overall/Rural/Urban)
Partner's Schooling	0.512***	-0.551	-0.369	-0.554	-0.304	-0.511	-0.606	0.97	61	2,115/1,152/962	9.54/8.72/10.48
	(0.068)	(0.663)	(0.586)	(0.865)	(0.527)	(0.924)	(1.898)				
Partner is Employed	-0.027***	-0.034	-0.035	-0.033	-0.024	-0.040	-0.086	0.93	61	2,170/1,184/985	0.84/0.87/0.80
	(0.004)	(0.039)	(0.031)	(0.049)	(0.026)	(0.060)	(0.119)				
Marriage age	0.223***	0.188	0.241	0.326	0.260	-0.123	-0.127	0.32	61	1,515/926/588	20.16/20.20/20.40
	(0.030)	(0.235)	(0.259)	(0.317)	(0.250)	(0.346)	(0.836)				
Marriage decision	0.044***	0.014	-0.014	-0.058	-0.082	0.136*	0.363	0.04	61	1,520/929/590	0.56/0.51/0.64
	(0.005)	(0.054)	(0.053)	(0.067)	(0.055)	(0.074)	(0.615)				
Partner witnessed violence	-0.015***	0.007	-0.022	0.027	-0.025	0.020	0.036	0.95	61	1,508/823/685	0.23/0.24/0.22
towards his mother	(0.005)	(0.049)	(0.046)	(0.073)	(0.053)	(0.078)	(0.176)				
Partner experienced violence	0.003	-0.077	-0.066	-0.056	-0.028	-0.105	-0.232	0.57	61	1,772/978/793	0.73/0.75/0.71
from his family members	(0.005)	(0.062)	(0.052)	(0.067)	(0.042)	(0.086)	(0.233)				
Asset ownership index	0.051***	0.105**	0.086***	0.121**	0.069***	0.100	0.183	0.79	61	2,115/1,152/962	0.09/-0.01/0.19
	(0.003)	(0.041)	(0.033)	(0.051)	(0.025)	(0.063)	(0.159)				

Notes: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey, using the sample women who ever had a relationship. The bandwidth is 61 months in all regressions, which is the optimal bandwidth $\hat{h}$ estimated by the Imbens and Kalyanaraman (2009) algorithm when years of schooling is the independent variable. Column (1) reports OLS results using years of schooling as the independent variable for an optimal bandwidth $\hat{h}$ estimated by the Imbens and Kalyanaraman algorithm. Columns (2) and (3) report reduced-form RD treatment effects and two-stage least squares RD treatment effects (by using treatment as an instrument for years of schooling) of being born after January 1987 with a linear control function in month-year-of-birth on each side of the discontinuity, respectively. Columns (4) and (5) reports results for the subsample of respondents whose childhood region of residence was rural, while columns (6) and (7) do the same for respondents whose childhood region of residence was urban. Column (8) reports the p-value for the test of equality between treatment effects for different subsamples reported in columns (4) and (6). Column (10) reports the number of observations used in estimations, and column (11) reports the outcome means for each sample. The dependent variables include the following marriage market outcomes. The first row reports the results for the years of schooling completed by the respondent's partner, and the second reports the results for the dummy variable for whether the respondent reports that her partner is employed. The following rows report results for the respondent's age of marriage, a dummy variable equal to one if the respondent reports that she decided on her marriage, and an asset index that is constructed from averaging z-scores of dummy variables equal to one if the respondent's household owns one of the 24 assets listed in Appendix A. All specifications control for a dummy variables for whether the respondent has grown up in a rural location, a dummy variable for whether the respondent's interview language differs from Turkish, month-of-birth fixed effects, and region fixed effects. Standard errors are clustered at the month-year cohort level.

TABLE A6: ROBUSTNESS: EDUCATION EFFECTS ON GENDER AND DOMESTIC VIOLENCE ATTITUDES BY CHILDHOOD REGION USING A STATIC BANDWIDTH

	Overall sample			**Rural**		**Urban**		**Difference**			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Outcome	OLS ĥ bandwidth	Linear RD ĥ bandwidth	Linear RD-2SLS ĥ bandwidth	Linear RD ĥ bandwidth	Linear RD-2SLS ĥ bandwidth	Linear RD ĥ bandwidth	Linear RD-2SLS ĥ bandwidth	(4)-(6) p-value	ĥ	N (Overall/Rural/Urban)	Mean (Overall/Rural/Urban)
Respondent reports that she agrees with the statement:											
A woman should not argue with partner if she disagrees with	-0.051***	-0.004	0.001	-0.062	-0.035	0.058	0.141	0.20	61	2,164/1,181/982	0.39/0.45/0.32
	(0.004)	(0.054)	(0.045)	(0.066)	(0.035)	(0.077)	(0.244)				
A woman should be able to spend her money as she wills.	0.013***	-0.042	-0.032	-0.032	-0.023	-0.068	-0.102	0.68	61	2,156/1,176/979	0.68/0.65/0.71
	(0.004)	(0.048)	(0.041)	(0.070)	(0.041)	(0.063)	(0.126)				
Men can beat their partners in certain situations.	-0.014***	-0.000	0.000	0.020	0.009	-0.025	-0.036	0.40	61	2,165/1,182/982	0.10/0.12/0.08
	(0.002)	(0.030)	(0.025)	(0.038)	(0.022)	(0.045)	(0.078)				
It may be necessary to beat children for discipline.	-0.021***	-0.020	-0.004	0.031	0.031	-0.097	-0.204	0.15	61	2,161/1,179/981	0.29/0.33/0.24
	(0.005)	(0.042)	(0.034)	(0.064)	(0.039)	(0.062)	(0.238)				
Men should also do housework, e.g. cooking and cleaning.	0.032***	0.112***	0.104***	0.138**	0.082***	0.105*	0.333	0.70	61	2,162/1,178/983	0.71/0.67/0.76
	(0.004)	(0.041)	(0.037)	(0.058)	(0.029)	(0.060)	(0.391)				
Men in the family are responsible for a woman's behavior.	-0.040***	-0.103*	-0.086*	-0.081	-0.043	-0.103	-0.205	0.82	61	2,135/1,165/969	0.41/0.45/0.36
	(0.005)	(0.054)	(0.045)	(0.063)	(0.033)	(0.084)	(0.211)				
It is a woman's duty to have sexual intercourse with her husb	-0.025***	-0.012	0.001	-0.005	0.005	-0.031	-0.026	0.79	61	2,129/1,161/967	0.22/0.26/0.18
	(0.004)	(0.050)	(0.043)	(0.070)	(0.041)	(0.067)	(0.123)				
Gender attitudes index	0.061***	0.064	0.047	0.056	0.026	0.080	0.147	0.81	61	2,170/1,184/985	0.05/-0.03/0.15
	(0.004)	(0.058)	(0.044)	(0.079)	(0.043)	(0.074)	(0.150)				

Notes: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey, using the sample women who ever had a relationship. The bandwidth is 61 months in all regressions, which is the optimal bandwidth ĥ estimated by the Imbens and Kalyanaraman (2009) algorithm when years of schooling is the independent variable. Column (1) reports OLS results using years of schooling as the independent variable for an optimal bandwidth ĥ estimated by the Imbens and Kalyanaraman algorithm. Columns (2) and (3) report reduced-form RD treatment effects and two-stage least squares RD treatment effects (by using treatment as an instrument for years of schooling) of being born after January 1987 with a linear control function in month-year-of-birth on each side of the discontinuity, respectively. Columns (4) and (5) reports results for the subsample of respondents whose childhood region of residence was rural, while columns (6) and (7) do the same for respondents whose childhood region of residence was urban. Column (8) reports the p-value for the test of equality between treatment effects for different subsamples reported in columns (4) and (6). Column (10) reports the number of observations used in estimations, and column (11) reports the outcome means for each sample. The dependent variables in the first seven rows are dummy variables equal to one if the respondent reports that she agrees with the statements listed in the table. The dependent variable in the last row is a gender attitudes index, which is a z-score constructed by averaging the z-scores from each of the 7 attitudes indicators (i.e. dummy variables equal to one if the respondent reports that she agrees with the statements listed in the table). All specifications control for a dummy variables for whether the respondent has grown up in a rural location, a dummy variable for whether the respondent's interview language differs from Turkish, month-of-birth fixed effects, and region fixed effects. Standard errors are clustered at the month-year cohort level.

TABLE A7: ROBUSTNESS: EDUCATION EFFECTS ON DOMESTIC VIOLENCE OUTCOMES BY CHILDHOOD REGION USING A STATIC BANDWIDTH

	Overall sample			**Rural**		**Urban**		**Difference**			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	OLS	Linear RD	Linear RD-2SLS	Linear RD	Linear RD-2SLS	Linear RD	Linear RD-2SLS	(4)-(6)		N	Mean
Outcome	ĥ bandwidth	ĥ bandwidth	ĥ bandwidth	ĥ bandwidth	ĥ bandwidth	ĥ bandwidth	ĥ bandwidth	p-value	ĥ	(Overall/Rural/Urban)	(Overall/Rural/Urban)
Physical violence index	-0.027***	-0.007	-0.000	0.010	-0.005	-0.011	0.033	0.84	61	2,160/1,181/978	-0.19/-0.18/-0.20
	(0.004)	(0.057)	(0.047)	(0.069)	(0.040)	(0.092)	(0.173)				
Sexual violence index	-0.012***	0.042	0.029	0.056	0.017	0.027	0.081	0.79	61	2,160/1,181/978	-0.12/-0.12/-0.12
	(0.005)	(0.062)	(0.053)	(0.078)	(0.046)	(0.085)	(0.189)				
Psychological violence index 1	-0.011**	0.110	0.095	0.232**	0.133*	-0.008	0.006	0.08	61	2,160/1,181/978	-0.15/-0.14/-0.15
	(0.006)	(0.080)	(0.076)	(0.105)	(0.072)	(0.107)	(0.204)				
Psychological violence index 2	-0.014***	0.046	0.039	0.147**	0.080*	-0.069	-0.108	0.04	61	2,160/1,181/978	0.03/0.04/0.04
	(0.004)	(0.050)	(0.046)	(0.061)	(0.044)	(0.083)	(0.170)				
Financial control index	-0.005	0.052	0.045	0.194	0.129	-0.137	-0.281	0.04	61	1,925/1,093/841	-0.11/-0.09/-0.13
	(0.004)	(0.086)	(0.073)	(0.130)	(0.089)	(0.086)	(0.292)				

Notes: Data is from the 2008 National Survey on Domestic Violence against Women in Turkey, using the sample women who ever had a relationship. The bandwidth is 61 months in all regressions, which is the optimal bandwidth ĥ estimated by the Imbens and Kalyanaraman (2009) algorithm when years of schooling is the independent variable. Column (1) reports OLS results using years of schooling as the independent variable for an optimal bandwidth ĥ estimated by the Imbens and Kalyanaraman algorithm. Columns (2) and (3) report reduced-form RD treatment effects and two-stage least squares RD treatment effects (by using treatment as an instrument for years of schooling) of being born after January 1987 with a linear control function in month-year-of-birth on each side of the discontinuity, respectively. Columns (4) and (5) reports results for the subsample of respondents whose childhood region of residence was rural, while columns (6) and (7) do the same for respondents whose childhood region of residence was urban. Column (8) reports the p-value for the test of equality between treatment effects for different subsamples reported in columns (4) and (6). Column (10) reports the number of observations used in estimations, and column (11) reports the outcome means for each sample. The dependent variables are z-score indices constructed from components of each dimension of domestic violence. The physical violence index is a z-score constructed by averaging the z-scores from each of the 6 physical violence indicators, including dummy variables that equal one if the respondent reports that she experienced violent acts of (i) slapping or throwing an object that would hurt; (ii) pushing, shoving, or pulling hair; (iii) hitting with his fist or in a way that hurts; (iv) kicking, pulling on the ground, or beating; (v) choking or burning; (vi) and physical violence during pregnancy. The sexual violence index is a z-score constructed by averaging the z-scores from the following indicator variables: (i) forced sexual acts, (ii) forced sexual relation due to the fear of what the partner would do otherwise, and (iii) humiliating sexual acts. The psychological violence index 1 is a z-score constructed by averaging the z-scores from each of the following indicator variables: (i) insulting, (ii) humiliating, and (iii) scaring or threatening. The psychological violence index 2 is a z-score constructed by averaging the z-scores from each of the following indicator variables: (i) insulting, (ii) humiliating, (iii) scaring or threatening, (iv) trying to keep her away from her friends, (v) trying to prevent contact from her family, (vi) insisting on knowing her location, (vii) ignoring her, (viii) getting angry if she speaks to other men, (ix) being suspicious that she cheats on him, (x) wanting his permission before she seeks healthcare, and (xi) intervening her clothes. The financial control index is a z-score constructed by averaging the z-scores from each of the following indicator variables: (i) take income from her despite her disapproval, (ii) refuse to give her money for household spending. All specifications control for a dummy variables for whether the respondent has grown up in a rural location, a dummy variable for whether the respondent's interview language differs from Turkish, month-of-birth fixed effects, and region fixed effects. Standard errors are clustered at the month-year cohort level.