Gender-Differential Effects of Conflict on Education: The Case of the 1981-1993 Punjab Insurgency

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Abstract

This study examines the long-run effect of the 1981-1993 Punjab Insurgency on the educational attainment of adults who were ages 6-16 at the time, using the 2005 India Human Development Survey. We find a substantial and statistically significant negative effect of terrorism on female educational attainment. We explore the channels through which the conflict affected education by employing a unique historical dataset on farmers' annual expenditures in Punjab during 1978-1989 and find that reduction in expenditure on schooling was one of the likely channels that affected the enrollment by girls in conflict-affected areas.

Keywords: India, household expenditure, human capital, conflict
JEL classification: I2, J1, O1

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I. Introduction

Between 2004 and 2008, the terrorist incidents in South Asia accounted for more that 30 percent of all incidents in the world.[1] In the recent years, the nature of armed conflict around the globe has shifted from civil wars and large-scale conflicts to more localized insurgencies and drug related violence that nevertheless substantially affect quality of life and local stability. Some examples include but are not limited to localized insurgencies in Pakistan, the Naxalite movement in India, and drug gangs in Brazil and Mexico. Internal conflict imposes huge costs not only at the macro-level (e.g. Gates et al., 2012) but also at the level of a household. Apart from the risk of losing life and property, there may also be intra-household distortions to long-term investments due to conflict documented by an extensive literature on the effect of armed conflict shocks on investments in human capital, such as education and health, of children.

Our study makes the following three contributions to the literature. First, we contribute to the literature on the effects of armed conflict on the human capital accumulation by households and individuals, with a focus on South Asia which has not been extensively researched by this literature.[2] Specifically, we examine the impact of local insurgency within the state of Punjab which has a population of 27 million people (Population Census, 2011). Second, we add to the literature on sex bias in early childhood and the response by farming households to armed conflict shocks by exploring the relationship between shocks, gender composition and educational expenditures. A bias in the allocation of resources towards boys is particularly prevalent in South Asia (e.g. Das Gupta, 1987; Rose, 2001). Third, we find evidence for long-term educational disparity between women and men who were of school-going age in more terrorist prone-districts that reinforces the importance of understanding persistent effects on accumulation of human capital in response to short-term negative shocks.

[1] GTD data 1970-2010: "National Consortium for the Study of Terrorism and Responses to Terrorism (START). (2011). Global Terrorism Database [Data file]. Retrieved from http://www.start.umd.edu/gtd".

[2] A large number of studies the impact of armed conflict on investment in human capital has focused on African countries (e.g. Akresh et al. 2011, 2012; Akresh and de Walque 2010; Bundervoet et al. 2009; Verwimp and van Bavel, 2014), with the rest covering a variety of continents from Europe to Latin America (Justino et al. 2014; León 2012; Shemyakina 2011; Swee 2011), and Valente (2014) exploring the case of Nepal in South Asia. See a review by Buvinic et al. (2014).

Our analysis first explores the long-term effects of the Punjab insurgency on educational attainment of adults who were between ages 6-16 years at the time of insurgency. We use cross-sectional data for the state of Punjab that is drawn from the 2005 India Human Development Survey (IHDS). The Punjab insurgency ran between 1981 and 1993 and was rooted in the desire of insurgents to establish Punjab as an independent state separate from India. We merge the IHDS data for Punjab with the district level data from the South Asia Terrorism Portal (SATP) on terrorist incidents and associated with them killings during the 1981-1993 Punjab insurgency. To establish that the observed effect of conflict is not due to pre-existing differences across districts of Punjab, we use a within state counterfactual group and examine the effect of conflict on older population that would not be plausibly impacted by a conflict that occurred past their schooling years. To control for potentially endogenous migration, we perform analysis for the full sample and sub-sample of individuals whose households did not migrate during their lifetimes. We should note that our results are conditional on an individual surviving the conflict. It is possible that that was a spillover of conflict from districts with more intense conflict activity to districts with fewer conflict events. In this case, a caveat to our analysis is that we observe only a lower bound effect of the conflict on educational expenditure and attainment.

Conditional on the assumptions above, we find a substantial and statistically significant effect of major terrorism incidents and terrorists' killings of civilians on educational attainment by girls as opposed to boys. For one standard deviation increase (262.34) in the number of killings due to terrorism and in the number of terrorist incidents (50.64)[3] between 1981 and 1993, young women from the affected cohort attained about 0.91 and 0.83 fewer years of education than men of the same age in these districts. These numbers are substantial as on an average, women in Punjab have only 4.83 years of education. The decline in educational attainment by women in war-torn societies has also been observed by Chamarbagwala and Morán (2011), Shemyakina (2011), and Walsh (2000). The magnitude of the decline in education is

[3] The means and standard deviations are for the 10 districts of Punjab: Amritsar, Firozpur, Gurdaspur, Hoshiarpur, Jalandhar, Kapurthala, Ludhiana, Patiala, Rupnagar, and Sangrur. The pairwise correlation coefficient between the number of killings and number of incidents per district is 0.974 (significant at 1% level). The average number of killings per incident is 6.13 with a median of 5.91.

comparable to the estimated 0.5 years of schooling lost due to landmine contamination in Cambodia (Merrouche, 2011). The negative effect of insurgency is more prominent for the rural locations, which is consistent with the geographic distribution of events that took place during the 1981-1993 insurgency.

To explore channels through which education might have been affected, we analyze the data from household-level farm account surveys conducted by the Punjab's state agricultural department in 1981-1990. One channel through which the insurgency had a negative impact on female education appears to be a decrease in educational expenses by households that had a greater share of girls to boys of school-going age. This reduction in household expenditure on education appears to be one of the demand-side channels through which conflict affected educational attainment. The observed effect is robust to the introduction of additional district and household-level controls, and placebo tests with other types of household expenditure as a dependent variable in separate regressions. To control for factors that remain the same for a district over time (such as, its proximity to the international border and access to religious networks), we include district fixed effects in all our specifications. Additionally, we also control for district linear and quadratic time trends because factors may be trending differently across districts and may lead to a spurious correlation between increasing terrorism and declining educational expenditures. Examples include differential growth in industrial development, differential trends in openness to agricultural technologies such as tractors and high-yielding variety seeds as well as for unobservable linear and quadratic trends.

The remainder of the paper is organized as follows. In Section II we relate our study to previous literature and describe the historical context of the insurgency in Punjab. Section III presents the conceptual framework, the data and the estimation strategy. Our empirical results and robustness checks are presented in Section IV. In Section V we discuss the results and conclude.

II. Prior Literature and Historical Background

II. 1. Literature Review

There is a growing literature on the gender-specific effect of armed conflict on schooling that finds diverse effects. Several studies note that exposure to civil conflict causes a larger negative impact on the

enrolment of girls as opposed to boys.[4] Theoretically, however, as recruitment into the army is male-biased, armed conflict can also lower education of boys. For example, using a case-study of Bosnia and Herzegovina, Swee (2009) finds that while all individuals in cohorts affected by war are less likely to complete secondary schooling if they lived in high-intensity areas at the time of the war, the negative effect on schooling is driven by males. Kecmanovic (2013) also finds a lower education among the cohort of males affected by war in Croatia compared to women and older cohorts. She explains this finding by males' participation in the conflict as soldiers. In the context of Uganda, Blattman and Annan (2009) show that school attainment is lower for former male child soldiers, while Annan et al. (2011) observe that abduction had little adverse impact on economic and educational activity of women and explain it by the absence of outside employment opportunities for all women regardless of their involvement in the conflict. Annan et al. (2011) indicate that an important exception to their overall results is the inability of forced mothers to return to school.

Differences in the institutional environments surrounding each conflict may be responsible for differences in the observed impacts of war on education by gender and income level. For example, exposure to genocide in Rwanda resulted in a drop in educational achievement by 0.5 years of schooling for all children. However, the negative impact was larger for boys from non-poor families (most likely Tutsi households), suggesting that this conflict may have reduced educational differences across wealthy and poor households and by gender (Akresh and Walque, 2010). In Nepal, educational attainment of girls who were of school age during the Maoist conflict actually increased and was higher than the attainment of boys (Valente, 2014).

Thus, the overall evidence is mixed. Parents may be more or less willing to invest in a son's secondary education than a daughter's depending on the context of conflict and intensity of recruitment during warfare. There are several channels that may explain higher education of boys vs. girls during

[4] Chamarbagwala and Morán (2011) observe this result for El Salvador and Shemyakina (2011) for Tajikistan. Their results are supported by Walsh (2000) who notes that girls in post-war Bosnia and Herzegovina were less likely to finish their schooling than boys.

conflict. The first channel suggests that parents may prefer investing in education of boys during times of distress more generally, a common pattern in behavior in less developed countries (see review by Duflo, 2012). The second channel can be called "safety concerns", and it points that young girls may be perceived as more vulnerable to attacks and abuses, and in particular, rape, on their way to school and therefore they may have to stay at home for their protection (Education for All, 2011). Third, parents may treat education of sons as an investment and a decline in the household's expected future income due to conflict may induce them to shift their resources to the education of sons (making education of daughters a luxury good). Fourth, households may care more about boys intrinsically relative to girls and this preference may intensify during conflict. Rosenzweig and Schultz (1982) find that children who are expected to be more economically productive adults receive a larger share of family resources.

II. 2. Conflict in Punjab: Background

According to the Population Census (2011), the state of Punjab covers 50,362 square kilometers of land in northwest India and has a population of 27.7 million, roughly 2.3% of the country's total. There are approximately 550 people per square kilometer, and 62.5% of the population lives in rural areas. Punjab has a sex ratio of 893 females per 1,000 males, which is significantly lower than the national average.

On an all India comparison, Punjab ranks sixth in Human Development Index (HDI) but is only 16th based on the Gender Development Index (GDI) making it the Indian state with the highest negative differential between the two (Dikshit et al., 2004).

Punjab is known as the "bread basket" of India. It has an advanced agricultural sector– producing a significant portion of the country's wheat, rice, cotton, and sugarcane, yet importing most of its processed food products (Telford, 1992). After the Green revolution in the 1960s, the state's agricultural output increased significantly, placing Punjab as the state in India with the highest income per capita up until the 1990s (Chandhoke and Priyadarshi, 2005).

Punjab has a history of changing rulers and intense ethnic struggles. It has been ruled by the Turks, the Afghans, the Mughals, the Sikhs, and the British. It became a more democratic, less caste-driven society under Sikh rule in the late 1700s and early 1800s, and expanded its agricultural potential with the

introduction of British agricultural technologies in the mid-1800s (Dikshit et al., 2004). These technologies, when applied to Punjab's favorable weather and fertile plains, made this Indian state one of India's most agriculturally developed, and, thus, a key region for the country's economy (Chandhoke and Priyadarshi, 2005). In 1960s, there were tremendous gains in agricultural productivity with the advent of high-yield variety seeds. However, around the same time, in the late 1960s, Punjab peasant movements escalated towards enormous demonstrations led by the Naxalites (a left-wing political movement) against moneylenders and large landowners. The Naxalite movement in Punjab lost its focus on agricultural reform and peasant social inclusion, and was eventually replaced by Punjab militancy, which arose due to ethnic, religious, economic, sociopolitical, and historical reasons (Singh, 1987). For a rationalist perspective on the causes of the conflict, please see Singh (2008).

The seeds of the insurgency were under the aegis of a religious figure, Jarnail Singh Bhindranwale, who galvanized Sikh youth and demanded an independent Sikh nation named Khalistan (SATP, 2012a). Fairly educated, economically lower-middle income youth were responsible for the killing of thousands of civilians and military personnel in the 1980s and early 1990s. One extremist political leader remarked to Joyce Pettigrew (1995), 'If only we had had the mountains or the sea, we would have had our freedom by now.' Though the militants initially targeted Hindus to increase their exodus, by the mid-80s the religious insurgency had morphed into rival terrorist groups competing for resources by resorting to kidnappings and extortions. Government military interventions, such as Operation Blue Star and Operation Woodrose in 1984, were unsuccessful in curbing violence (Singh, 1987).

Puri et al. (1999), who performed detailed-village surveys, observed that over 65% of the terrorists were from large families of landless laborers, marginal and small farmers and that fighters for "Khalistan" came predominantly for experiencing adventure, making money and also because they were unemployable in the white-collar job market. The rest of the terrorists came primarily from middle-class rural families where landholdings were more than 5 acres. The movement was relatively young, with 68% terrorists being between the ages of 18 and 25. 70% of the terrorists were unmarried. For their survival, the militants depended on the support of villagers. The insurgency also had an impact on labor spending. Singh (2012)

finds that the violence was associated with an 11.4 percent decline in spending on permanent agricultural labor but did not have a significant effect on the use of temporary labor. Moreover, insurgency-related violence likely signaled an increase in future kidnappings of farm labor and may have incentivized labor away from longer duration contracts.

Occasionally, women were also identified as part of the terrorist groups. For example, three women in villages of Majitha were caught carrying messages and arms to terrorists within a group. Many women were also harmed directly by terrorists. During the surveys conducted by Puri et al. respondents in two villages referred to sexual exploits of the "boys" who had made several homes their centers for night stay. "A prominent government doctor in one village provided a generalized picture of young girls brought for termination of pregnancies from surrounding villages every week." The rural households where terrorists forcibly stayed at night were advised to keep almonds as it was believed to be an aphrodisiac. One respondent told the authors, "For the kind of night life they lived, how could they survive without almonds and milk mixed with *desi ghee* (clarified butter)" (Puri et al., 1999: p. 32). Further, Puri et al. note that 12.6% of persons killed by terrorist groups were female.

Interviews of militants by Joyce Pettigrew show that kin and friendship networks were important method of recruitment especially in districts close to the international border, which were also the least developed and most conflict-affected districts in Punjab. These districts were also replete with historical temples that encouraged persistence of religious networks. Proximity to the border also encouraged guerrilla warfare as militants could hide inside Pakistan after carrying out attacks. The continued neglect of this region's industrial development and its above average unemployment (Pettigrew, 1995) lowered opportunity costs of engaging in conflict. However, as we control for district-fixed effects, year effects, district per capita income and district-time trends, these omitted factors would not lead to a bias.

Between 1991 and 1993 strong police action dismantled most of the militant organizations responsible for Punjab's prolonged insurgency resulting in a spike in casualties among terrorists, security personnel and civilians before the violence came to an end in 1993 (SATP, 2012b). The death toll rose over

20,000 by 1993, and even though the conflict has officially ended, there has been sporadic ongoing terrorist activity in the state till date (SATP, 2012b).

III. Conceptual Framework, Data and the Estimation Strategy

III. 1. Conceptual Framework

This section describes a conceptual framework for our empirical analysis. Consider parents deciding on investments that will bring them their future income. Assume that the probability of getting a future income transfer from each of their female children is p_g and the probability of an income transfer from each of their male children is p_b.

Now assume that the future income of girls and boys increases through their accumulation of human capital (through education and health) that households spend on today. If households are hit by a negative income shock due to conflict, they can adopt one of the following three strategies:

1. Cut down on human capital investment for all children and save money for the future.
2. Reduce human capital investment for some children and increase (or keep same) the investments in education for other children.
3. Increase human capital investment for all children in order to obtain a greater reward from higher wages of their children in the future (as found by de Groot and Göksel, 2011).

All three strategies above can be rational approaches to deal with a negative income shock. Future income transfers from girls and boys are a function of their human capital investment, *e* and conflict in the region, *c* which may affect the incomes of boys and girls differently.

$I_g = f(e, c)$

$I_b = g(e, c)$

Suppose parents care about two things only: the probability that at least some of their children transfer income *(p)* and the actual amount of the transfer *(I)*.

If the conflict affects the income transfer functions of boys and girls, parents will need to re-optimize how much investment they choose for boys versus girls. If the conflict shock lowers returns to education for both boys and girls, the couple may decide to cut down on investment for both. Similarly, if exposure to conflict increases returns to human capital for both, the parents may increase investment in education for both girls and boys (depending upon their preferences as well as budget constraints). The direct effect of the shock can for instance, increase wages of women more than wages of men and that may in turn increase expected income transfers from women in which case investment in girls today becomes more likely. The necessary condition for the reduction in the investment in education for girls is that the conflict reduces the educational returns more for girls than for boys. It is not the probability of transfer alone that matters but rather both the relative probability and the educational returns: it depends on their combination if the conflict has a positive or negative effect on the gender differential. The probability of the income transfer will also depend on the number of girls to boys in the household. Assume that p_b is greater than p_g due to social norms prevailing in Punjab that favor income transfers to parents from boys as opposed to girls (Das Gupta, 1987). In this case as the number of girls to boys in the household increases, parents reallocate a greater share of their educational investment from girls to boys in response to a conflict shock that affects both transfer functions symmetrically. However, if the returns to education become sufficiently higher for girls as compared to boys, the reverse could hold true despite p_b being greater than p_g.

This very simple framework abstracts from fear of getting killed or kidnapped for parents as well as their children, an uncertainty about the future returns, and direct utility from getting children educated.

III. 2. Data

This study uses three main data sources. First, to analyze the long-term impact of the conflict in Punjab on education we use the 2005 India Human Development Survey (IHDS).[5] It is a nationally

[5] Available from: http://ihds.umd.edu/ (last accessed March 12, 2013)

representative survey of 41,554 households in 1,503 rural and 971 urban areas. The survey questions covered topics of education, health, social capital, fertility and marriage, employment and economic status. The survey includes information on the years in residence in current locality by a household. We use this information to infer migration status of individual household members, and estimate our baseline regressions for the full and non-migrant sub-samples. The IHDS covers 13 major districts of Punjab out of currently identified 20 districts and importantly, no districts that are omitted from the IHDS sample were in existence during the insurgency.[6] The descriptive statistics are presented in Table 1.

Second, the data on household expenditure on education comes from the representative repeated cross-sectional farm account survey for the state of Punjab (henceforth, the farm survey). 510 farmers were surveyed between July 1978 and June 1990. 35 farmers were surveyed in 1978 and 46 in 1989 averaging 42.5 households per year. The surveys were conducted by the office of the Economic Advisor for the Government of Punjab. This collection of surveys constitutes an unbalanced panel of 46-sub-districts, where 35-37 and 43-46 sub-districts were surveyed in 1978-1980 and 1981-1990 respectively. One household for every sub-district was selected each year based on its representativeness of the sub-district. Importantly, there was no attrition in sub-districts being chosen after the insurgency began.

The main goal of the survey was to obtain information on the sources of income and types of expenditure of farmers in the state. The survey team selected a farm that was representative of other farms in the area and where a farmer used a bullock pulled cart for tilling the land. The farmer then had to agree to participate in the survey and record his day-to-day agricultural activities, family income, and expenditures in a supplied journal. Two government employees visited farmers once a month to help with the accounting. The journal with accounting information was collected by the end of the agricultural year that runs from July to June. Each farmer was paid 75 rupees for filling out the survey, which is about 0.23

[6] http://www.census2011.co.in/census/state/districtlist/punjab.html (Accessed: June 13th, 2014). Many of the new districts were carved out of the larger parent districts. Therefore we aggregate conflict information into parent districts as described in Singh (2013). We also aggregate IHDS data for the newly created districts of Nawanshahr, Fatehgarh, and Moga into their original parent districts in the Punjab farmers surveys (Jalandhar, Patiala, and Firozpur). We also perform the baseline analysis for the sub-sample that does not include these districts and the results largely hold (see Online Appendix Table A1).

percent of an annual household income for an average family of eight. The farm surveys are available until 1990.[7] The descriptive statistics for the sample of farmers can be found in Table 2.

Thus, all analysis of household expenditure is based on the accounting records made by farmers themselves. The 1978-1989 period can be divided into a pre-violence (1978-1981) and the period characterized by terrorist activity from 1981 to 1989.

Table 2 shows the summary statistics for the households in the dataset. It includes the annual household expenditures on a variety of items, as well as summary statistics on the household composition by age and gender. The data suggest that households spend a large part of their budget on food, which is then followed by social expenditures, expenditure on medicine, travel and education. The average per capita farm income in 1981 is Rs. 4,096. [8] The mean household has about eight members. The household composition is the following: an average household has 0.46 males and 0.38 females of age 5 and below and 2.91 males and 2.80 females age 16 and above. Households have similar numbers of male and female children of school age or 6-16 years old. In our empirical analysis, we focus on household's expenditures on education and health as our main dependent variables since the dataset does not include information on an individual educational attainment and health outcomes.

Third, we use data on the number of terrorist incidents and killings at the district level from the South Asia Terrorism Portal (SATP). The data are disaggregated at the district level only for the 'major' incidents, or incidents where three or more people were reported dead. We do not know which districts had a larger share of low intensity events that were not included in the dataset and this underreporting may bias our results in unknown direction. Table 2 includes a dummy variable for terrorism that takes the value of one if there was a major incident of terrorism in the district in a year of the survey and is zero otherwise. The number of terrorist incidents and number of killings are cumulative over the 1981-1993 period. The number of terrorist incidents ranges from 17 to 187 with a mean of 53.2, and the number of killings ranges

[7] This description is based on Singh (2013).
[8] The average per-capita income in the state was Rs.3,126 according to the Census of India statistics. Thus, it appears that farmers are wealthier than the overall population.

from 78 to 950, with a mean of 311. The pairwise correlation coefficient between two variables is 0.97, significant at the 1% level. The conflict data set has information on each of the districts in the farmer surveys and the IHDS. It also contains data on new districts that were carved out of existing districts. Thus, we aggregate values of terrorist incidents and killings for districts into their larger parent districts for consistency and merge them with farmer surveys and IHDS data. For example, in 1984, Gurdaspur had 24 terrorist killings and Batala had 3. However, as Gurdaspur was the parent district (and occurs in the IHDS and farmer surveys), it is "as if" Batala was still part of Gurdaspur and thus, 27 killings are assumed to have taken place in Gurdaspur. For a more detailed summary on the number of farming households surveyed annually and the average number of conflict events for each of the twelve parent districts, please see Singh (2013).

III. 3. Empirical Strategy

3.1 Identification using IHDS data

To identify an individual's exposure to the conflict during their schooling years (age 6 to 16 years), their educational attainment is matched to the district-level exposure to the conflict based on their current district of residence. To account for migration, we perform this analysis for the full sample and for non-migrant sub-sample. We start with a baseline difference in differences specification (Equation 1), where we sequentially add controls for the district of current residence and caste affiliation.

$$E_{ijk} = (T_j * Affected_k)\gamma + (T_j)\delta + (Female_i)\chi + \alpha_j + \beta_k + \varepsilon_{ijk}$$

In Equation 1 the dependent variable E_{ijk} is the years of education[9] attained by an individual i residing in the district j and born in year k. α_j is a fixed effect for an individual's district of residence. β_k is a year of birth fixed effect. T_j is the 'exposure' variable that controls for the conflict intensity in the district

[9] Years of education variable is defined in the following way: "0" corresponds to "no education", and "10" corresponds to "matriculation, or the final year of high school" which is grade 10 in India. Years between 0 and 10 correspond to an actual number of school grades completed, as well as years completed after grade 10. We also performed a robustness check where we capped number of years of education at 10, and the results (available on request) are largely robust to this definition of the dependent variable.

of residence (number of terrorist incidents or number of people killed). *Affected* is a dummy variable indicating whether an individual *i* was between 6 and 16 years old during the conflict (born in 1965-1984), and is zero for individuals who were born in 1954-1964. The year of birth fixed effects control for the underlying trends in attainment due to birth in a later year versus an earlier year. The district fixed effects account for time-invariable district specific characteristics. The individual level controls include gender, caste, religion and urban residence.[10] All regressions are estimated with robust standard errors clustered at the district of residence. Note that *Affected* is not included on its own in the regression equation because it is subsumed under the more conservative year of birth fixed effects. In line with the literature, we also examine for the effect of conflict for different sub-samples. For that we estimate equation by gender, and for the non-migrant sub-sample. Further, we separately estimate regressions for rural locations as most of the terrorist activity happened in rural settings.

A simple differences regression described in Equation 1 allows us to look at how girls who were of school-going age at the time of conflict in *their* district changed their attainment relative to those who were not school going-age in the same district. However, this approach does not account for any general changes in the schooling system at the time that would impact both girls and boys. A difference-in-differences regression that aims to control for gender differences should account for a similar effect on school-going age boys versus those that were not of school-going age during the time of the conflict.

Thus, we explore the gender-differential impact of conflict while controlling for common trends across years and districts. Equation 2 builds on the Equation 1 specification. It includes an interaction of 'female' dummy variable with the 'affected cohort' dummy, and the triple interaction term between the last two variables and the district-level terrorist activity measure:

$$E_{ijk} = (T_j * Affected_k)\gamma + (T_j)\delta + (Female_i)\chi + (T_j * Affected_k * Female_i)\lambda + (T_j * Female_i)\eta +$$

[10] We include the following dummy variables representing caste and religious affiliation in the regressions: Brahmin, High Caste, Sikh, other Backward Caste (OBC) and 'other' affiliation used as a reference group that includes members of Dalit caste, Christian, Muslim and Adivasi. The data do not include information on the household of residence during one's schooling years or any migration information.

$$+ (Female_i * Affected_k)\phi + \alpha_j + \beta_k + \varepsilon_{ijk}$$

The coefficient 'λ' is an estimate for the gender-differential impact of terrorism on educational attainment for affected cohorts after accounting for cohort, gender and conflict effects individually and their interactions. Conceptually, this measures the difference in slopes for females and males for a line that describes the relationship between years of education and intensity of terrorism for affected cohorts in each district.

The identification of Equation 2 depends on the parallel trend assumption in the absence of insurgency of gender-differential educational attainment in more and less intensely affected districts of Punjab. We test for the presence of parallel trend by performing a regression as specified in Equation 2 with a "placebo treatment cohort" comprised of the individuals born in 1988-1991 (placebo young cohort) and the control category being set as in Table 3. The results are shown in Appendix Table 1. The estimated coefficient on the triple interaction term is negative but not statistically different from zero in any of the estimations. In the second placebo test, we focus on the cohorts born in 1954-1964 and separate them into two groups, with the placebo treatment category set to these born in 1954-1959 and the 1960-1964 cohort used as a control group (Appendix Table 2). The second placebo test suggests that women in the placebo "treatment" cohort in more affected regions were doing as well or even better than men with respect to their education. The estimated coefficient on the triple interaction term becomes statistically insignificant though when we add controls for an individual's caste (with N of cases as a measure of conflict exposure) (Col. 2) and district level fixed effects in Col. 3 and 6 for both measures of conflict exposure. The results of these placebo tests confirm our original assumption of the parallel trend in gender-differential educational attainment across districts of Punjab differentially affected by violent terrorist events.

3.2 Identification using the farm accounts surveys

To study short-term changes in household expenditure on education, we use farm account surveys as described in Section III.2. The intuition behind this specification is again a triple difference: a difference-in-differences would measure the impact of terrorism on household educational expenditure after

controlling for spatial and temporal variation (through district and year fixed effects) as well as underlying linear and quadratic trends in the districts. We propose to examine how this difference-in-differences estimate differs for families who happen to have a greater share of girls to boys in the household. We use the following empirical specification (3):

(3)

$$\textit{Household expenditure}_{ijt} = \alpha + \beta\ (\textit{Terrorism})_{jt-1} + \textit{ratio6\_16}_{ij} + (\textit{ratio6\_16*Terrorism})_{ijt-1} + (\textit{Year-fixed effects})_{t} + (\textit{District-fixed effects})_{j} + (\textit{District-time trends})_{jt} + (\textit{District-quadratic trends})_{jt} + (\textit{District-per capita income})_{jt} + (\textit{Rainfall from nearest weather station})_{ijt} + (\textit{Household-level controls})_{ijt} + \varepsilon_{ijt}$$

where *i, j* and *t* subscripts refer to household, district and year respectively. The dependent variable is household expenditure is annual household expenditure on education or medicine. Terrorism is a dummy variable equal to one if a major terrorist attack took place in that district and zero otherwise. A major terrorist attack is defined by SATP as an attack that caused at least three casualties.

As the data on casualties are based on a calendar year and that of expenditures on an agricultural year (July-June), we have a six-month gap between the casualties' data and other variables in the specification instead of the conventional one year (similar to the approach in Singh, 2013).

The variable ratio6_16 is defined as the [number of females in the household between ages 6 and 16 / (1+number of males in the household between ages 6 and 16 years)].[11] We also include a set of dummy variables for each year following the onset of conflict (1981 onwards) and the district-level fixed effects (12 districts). Other controls include information on rainfall from the nearest weather station (in mm) that was recorded for all farming households in the dataset. Household-level controls include area held in hectares, area under each quality of soil (Sandy, Clay, Loam, Sandy Loam) and the number of adult family members. District-time trends and district-quadratic trends control for linear and quadratic trends in

[11] This specification of the denominator allows us to keep in the regression sample households that do not have boys ages 6-16.

unobservable characteristics that may be specific to each district, for example, agricultural productivity. The robust standard errors (ε_{ijt}) are clustered at the village level.

The gender differential estimate of the impact of terrorism on educational expenditure can be inferred by the coefficient on the interaction between the Terrorism dummy and the gender ratio of the school-age going cohort in the household. This interpretation assumes that migration patterns in response to conflict do not cause a selection bias. For example, if families with a high ratio of girls to boys are the only ones that are remaining in the districts prone to terrorism because they are unable to migrate, we are going to have a bias in our estimates. To address this concern, we show that ratio of girls to boys of ages 6-16 years remains similar over time in our sample for both high-terrorism affected as well as low-terrorism affected districts (see Appendix Figure 1). Similarly, we do not find a reaction to the conflict on fertility and possible abortion decisions of the household in our sample. There does not appear to be a difference in patterns for under-6 girls to boys' ratios both within and between districts (see Appendix Figure 2). However, there are no data available on migration during this period, so we are unable to control for it in our regressions.

IV. Results

IV. 1. The Long-Term Impact of Conflict on Education: Results from the 2005 IHDS

In the analysis of IHDS data, we use two variables to measure district level exposure to terrorism. The first variable is the number of major terrorist incidents (with more than three people killed) recorded for the district between 1981 and 1993. The second variable is the number of people killed in the district due to the major terrorism incidents during the same period.

We use the following definitions of the cohort affected by conflict during its formative years, henceforth the 'affected cohort'. First to match the expenditure data for children aged 6 to 16 years in the farmers' survey that ended in 1989, the 'affected cohort' includes individuals who were 6-16 years old during the insurgency or born during the period 1965-1984 (first definition). Second, to match the years of insurgency more precisely, we extend the definition of the affected cohort to 1965-1987 by including

individuals born in 1985-1987 (second definition) in the data.[12] In all the tables that follow, columns 1-3 report results using the first definition of the "affected cohort", and columns 4-6 report results using the second definition of the affected cohort.

Baseline difference in differences results

Table 3.1 presents results of the baseline difference-in-differences analysis for the full sample. Panels A and B respectively report results using N of terrorist cases and N of killings associated with terrorist cases respectively. In Table 3.1, the estimated coefficients on the interactions terms between the conflict measure and the affected cohort dummy are negative when we use the N of terrorist cases to define conflict and are equal to zero when we use the number of killings. Both coefficients are not statistically significantly different from zero. The coefficients on the conflict measures are negative but only statistically significantly different from zero when we control for the district fixed effects. As expected, women complete fewer years of education compared to men, and individuals in urban areas attain more schooling compared to rural areas. Both sets of coefficients are significantly different from zero at the 1% level in all regressions. Next, we estimate the differences in differences specification, separately for the male and female subsamples. The results for male and female sub-samples are reported in Tables 3.2 and 3.3 respectively. In both tables, we are particularly interested in the size and significance of the estimated coefficients on the interactions between "affected" cohort and conflict measure. From Table 3.2 we can see that the affected cohort of men in the districts with more violence earned *more* years of schooling than the affected cohort from districts with fewer incidents, or older cohorts. The estimated coefficients on the interaction term are positive and statistically significant when caste and district fixed effects are included in the regressions. The estimated coefficients on the conflict measures are negative and statistically significantly different from zero at least at the 5% level. From the results for the sample of women reported in Table 3.3, we can see that the affected cohort in the more conflict exposed districts experienced a

[12] We also used an alternative definition of the control group that included individuals who reached age 16 before 1981 or those born in 1964 and earlier. Using this definition did not have a substantial impact on our estimates.

substantial loss in their education. The results is robust and consistent for the "N of cases" conflict measure. The estimated coefficient varies from -0.009 to -0.011 depending on the specification and the set of controls used. In the regressions that use the number of killings as a measure of conflict, the coefficient on the interaction term is imprecisely estimated and is only statistically significantly different from zero when we account for caste and district fixed effects. Thus, the standard difference in difference estimates reported in Table 3.1 appears to average the effect of conflict on the educational experiences of men and women, while results from Tables 3.2 and 3.3 suggest that younger men (women) in more exposed districts obtained *more* (*less*) years of schooling relative to the control sample of similarly aged individuals. Thus, combing results from Tables 3.2 and 3.3 and comparing them to the full sample difference in differences estimates in Table 3.1, provides us with a sufficient motivation to add to Equation 1 a set of additional interaction terms between "female" dummy variable, "affected cohort" and the conflict measures. Full sample estimates are reported in Table 4.

Triple differences results

Estimates in Table 4 suggest that district-level exposure to conflict had a negative and statistically significant impact on the educational attainment by females who were age 6-16 during the Punjab insurgency (the triple interaction term) after controlling for other variables. This result is robust to the alternative definitions of the treatment group. The estimated coefficient on the stand-alone 'conflict exposure' variable is statistically significant at least at the 1% level in most of the estimations. The estimated coefficient on the triple interaction term, between 'affected cohort', 'conflict exposure' and the estimated coefficient on the indicator variable for female is negative and statistically significantly different from zero at the 1% level in the estimations for the full sample and the rural sub-sample. The coefficient is larger in absolute value when we use 'number of terrorist cases' as a measure of exposure to conflict compared to the number of killings, -0.014 vs. - 0.003 respectively for the full sample, which is consistent with the definition of these variables, where there are about 6.13 killings per terrorist case. For one standard

deviation increase in the number (50.63 cases) of incidents and killings (262.34 deaths)[13] between 1981 and 1993, women from the affected cohort attained about 0.83 and 0.91 fewer years of education than men of comparable age in similarly affected districts. This effect amounts to about 18 percentage points fewer years of school achieved by women on an average as women in Punjab have 4.83 years of education.

The estimated coefficient on the interaction term between 'conflict exposure' and 'affected cohort' dummy is positive and rather small. The term is statistically significantly different from zero only when we include controls for an individual's caste (religion) and district of residence. The positive sign indicates that men in the districts more exposed to conflict attained more education. They vary depending on the set of controls and sub-sample used, indicating that women from the 'affected cohort' obtained 1.5 to 2.1 more years of education than women from the control group born in 1954-1964, who should have completed their schooling by the time the insurgency started. This last result indicates a significant gain in female education for the 'affected cohort' in 1980-1990s. Since, the estimated coefficient on the triple interaction term is negative and statistically significant, it implies that even during this educational expansion for the younger cohort and women in particular, exposure to conflict during one's schooling years had a negative and lasting effect on female educational attainment.

Our results are robust to using two alternative specifications of the conflict exposure variable (number of incidents and number of killings), the alternative specification of the 'affected cohort' and controlling for the year of birth, district of residence and caste/religious affiliation fixed effects.

Rural Sub-sample

Tables 5.1 and 5.2 present baseline differences in differences and triple differences regression results for the rural sub-sample, as reports on Punjabi insurgency suggest that insurgent activity took place primary in rural locations. The results are largely similar to the full sample estimations, with slightly higher coefficients

[13] The standard deviations are estimated using a sample of 10 districts.

of interest in the differences and differences estimates for the sample of women (Table 5.1, Panel C) and the pooled sample with the triple differences set-up. These results suggest that rural women from affected cohorts from districts with more conflict exposure experienced stronger set-backs in their educational attainment than women of similar age from less affected districts and men of similar age in similarly affected districts (Table 5.2). [14]

Migration and other potential caveats

Armed conflicts typically lead to substantial movements of population and migration out of conflict regions may bias our estimates if households that are more likely to invest in education of children moved out. Our dataset allows us to identify migration at the household level, thus, one of the questions asks how "How many years ago did your family first come to this village/town/city?" (Question 1.16 in the Household Questionnaire of the IHDS). Using this information, we identify individuals who lived in a particular locality for all of their life. In Table 6.1 we test for the impact of potentially selective migration on education using the baseline differences in differences analysis framework.

The results in Table 6.1 are similar to the results reported in Tables 3.1, 3.2 and 3.3 and suggest that non-migrant women from the younger cohort in the more affected districts experienced a loss in their education relative to older women, while men from this cohort gained more education than the older cohort.

Similarly, the estimated coefficients on the triple interaction term reported in Table 6.2 for non-migrant sub-sample are similar to the full sample results. The coefficients of interest are slightly higher suggesting that women in the non-migrant sub-sample relative to men received less education than women who migrated during their life.

Another caveat, is that it is possible that households with a higher taste for a child quality or desire to protect their children would be more likely to move out of the affected districts to other parts of India or to lesser affected districts. If these households move out of Punjab, then this migration will lead to an

[14] We also performed a set of baseline estimations for rural non-migrant sub-samples. The results are qualitatively similar to the full sample results and are reported in the Online Appendix as Appendix Tables A2 and A3.

underestimation of the actual impacts of the conflict. Since results in the full sample and the non-migrant sub-samples are very similar, it is likely that our full sample results are driven by the non-migrant sub-sample, and it is likely that migrants were affected in a similar way.

Further, as suggested by Monteiro and Rocha (2014), parents in locations affected by conflict may attempt to compensate for the negative impacts of violence and either invest more time in teaching children at home, or transfer them to another location. In this case, the estimated effect of conflict on education of children would be a lower bound of an actual effect of the conflict on education. If parents prefer to invest more in the education of boys in the case of distress, then the increase in the education of younger cohort of boys may be partially explained by this behavioral change.

Another caveat is a potential spillover of the conflict to localities with fewer registered conflict events. In this case, the indirect exposure to conflict will reduce the educational attainment in these localities as well and if we use these locations as control groups, our estimated impact of conflict on education in the more affected districts will be biased downwards.

We should be aware of these potential biases to our estimates. However, given the data was not collected for specifically to analyze the impact of conflict on the education of population, to our knowledge, there are no other suitable data to in this context that addresses all our concerns.

IV. 2. Mechanisms of the conflict impact: results from the survey of farmers

Table 7 presents estimation results of equation 2. The dependent variable is the amount spent by a household on education. The main variable of interest is the interaction of the ratio of girls to (1+boys) aged 6-16 years in a household interacted with the dummy for the district being exposed to a major terrorism event in the survey year. This ratio is chosen as opposed to a simple ratio of number of girls to boys to avoid missing values for families who have no boys. SATP defines a major terrorist incident as one where there are at least three killings by terrorists. The estimated coefficient on the interaction term is negative, suggesting that households that have a greater share of girls than boys of the school going age and who reside in districts that experienced a major terrorism event spent less on education than comparable

households in the districts that did not experience a major terrorism event. The estimated coefficients on the stand-alone 'terrorism' dummy variable and the share of girls to boys are both positive but not statistically significantly different from zero in Column (4). The weak statistical significance of the regression coefficient estimated on the dummy for terrorism in Columns (1)-(3) implies that for families that have no girls of school-going age, there is an increase in the expenditure on education for boys. This effect may be related to an increase in the returns to education of boys relative to girls as explained in the conceptual framework. As the number of girls in the household increases, so does the likelihood of substitution towards boys' educational investment.

We then follow with performing a same set of regressions as in Table 7, but here we replace the dependent variable with the household's expenditure on medicine and doctor's fees. Appendix Table 3 shows the results of these regressions. Again, the estimated coefficient on the interaction term is negative and statistically significantly different from zero at the 10 percent level. Further, it can be seen that the presence of terrorism has no statistically significantly different impact on the expenditures on health for a household with no school-age going girls. The relative share of girls to boys is correlated positively with the health expenses in peaceful districts. This result is statistically significant when we control for more than district and year fixed effects, as in Columns (3) and (4). Again, the estimated coefficient on the interaction term is negative and statistically significant which shows that households with a higher share of girls to boys in the districts affected by terrorism significantly reduced their expenditure on medicine.

Figure 2 shows that expenditures on education behave similarly in peace and conflict as the number of girls increase relative to number of boys in a household.[15] In the years, when a district experienced no major terrorist incident, the expenditures on both items show a slightly increasing trend suggesting perhaps that there is little gender inequality in the household expenditures during peace. However, during a year when a district faces a major terrorist incident, in the households with the higher number of girls relative to boys the expenditures decline. This observation points out a potential re-optimization of a household's

[15] The corresponding graph on health expenditures can be found in Appendix Figure 3.

human capital investments in response to a conflict shock, and this re-allocation appears to be favorable towards boys.

Next we test for the heterogeneity in the impact of conflict on different age groups of school going children. In Table 8, we replace the ratio of girls to boys for ages 6-16 with two ratios – for children aged 6-12 and those aged 13-16, as the data do not allow us any further breakdowns for children age 6-16. The results in Table 8 indicate that there are no significant heterogeneous gender differential effects on the education expenditures between the younger school-aged children, characterized as being in the 6-12 age group, and the older students, the ones in the 13-16 age group, as all the terms are not statistically significant. This result suggests that insecurity of teenage girls (due to a possibility of sexual abuse) was not the only reason. However, this result could also be due to a low power, as sample size is curtailed.[16]

In Table 9, we perform a mechanism test, where we estimate regression models from Table 7, for the sub-samples of households that have only girls, only boys, and both boys and girls. The results for educational expenditure are shown in Columns (1)-(3). The regression results in this table combined with the regression results in Table 7, reinforce a substitution story – when there is a mix of boys and girls in the household as in Column (3), district-level exposure to terrorism has an insignificant but large negative effect on educational expenditures (-16.6%) but the magnitude of the effect is only 1% when the household has only girls. The estimated coefficients on the terrorism dummy variable are not statistically significant, possibly due to a decline in the number of observations, as only a small number of households have only boys or only girls. However, the results point towards a substitution story rather than a secular cut in educational spending for all children. This is consistent with the positive and significant effect of conflict on long-term educational attainment for affected men observed in Table 4.1 and the negative coefficient for affected women in Table 4.2. Similarly, Column 3 suggests that educational expenditure for boys did not decline (and might even have gone up) in all-boys' households. Overall, the results indicate that terrorism dummy interacts with household gender composition of school-age children by reducing educational

[16] The corresponding table for heterogeneous gender effects by medicine expenses appears as Appendix Table 4.

expenditures especially where there are more girls in households that have both boys and girls. This result is also in line with triple difference estimates of the impact of conflict on long-term educational attainment obtained through the IHDS 2005.[17]

The external validity of our results is contingent on the sample of the farmers being representative for the area studied and not being affected by the outmigration of Hindus due to an increase in violence towards them during the early years of the insurgency (see for example, Chandhoke and Priyadarshi (2005); Singh (2002); Devdutt, 2008). There may also be a tendency to over-report educational expenditure in families with many girls, so we expect our estimates to be a lower bound of actual investments in education.[18] Further, the accuracy of results using the 2005 IHDS depend on an individual surviving up to 2005 and not migrating outside one's district of residence at the time of schooling.

Robustness Checks

Our results may be prone to a criticism that educational expenditures are in general lower for the households that have more women relative to men, regardless of the age group in question. To examine this possibility we conduct a placebo check where we test for the impact of terrorism on educational expenditure using the ratio of female to male children six years and younger (Table 10, Panel A, columns 1-4) and the ratio of adults age 17 and above (Table 10, Panel B, columns 5-8) and their interactions with the "terrorism" dummy as independent variables. The comparison of the results in Tables 7 and 10 shows that expenditures on education are significantly negatively associated with the presence of terrorism only in the households that have relatively high ratios of girls to boys of school-going age and not of other age groups. Appendix Table 6 shows the placebo test for health expenses with the gender ratios for other age groups. Similar to Table 10, these results do not support differential allocation of health expenditure towards boys or girls in the districts significantly impacted by terrorism.

[17] The corresponding results for health expenditures by household composition are in Appendix Table 5.
[18] Deaton (1989) uses the following technique to elicit intrahousehold gender discrimination: for household purchasing favors boys over girls, smaller expenditures on “adult goods” would be made by families with boys as compared with those with girls.

As an additional robustness check, we replace the ratio of girls to boys by the actual numbers of girls and boys of school age in a household, along with their interactions with the terrorism dummy in Table 11. The results point towards a significant negative effect on educational expenditure in terrorism-affected district-years for households that have girls. In terms of magnitude, the effect is equivalent to a reduction of about Rs. 100 per girl per year in the household for a terrorism-affected district. This effect amounts to a 22 percent reduction in average educational expenditure for every additional school-age going girl in the household.[19]

Another potential criticism of our findings could be that households reduced their expenditures across the board, and that the terrorism impacted all spheres of life. To test this implication, we conduct another robustness check by estimating whether households with a higher ratio of girls to boys also reduced their other types of expenditure. If we observe cutbacks across the board, it would mean that households are trying to conserve resources overall. We present these results in Table 12, where we use the same model specification as in Table 7, but replace the dependent variable with other types of expenditure, such as expenditure on food, social life, religion, lighting and travelling. We find no statistically significant impacts of on these types of expenditure for households that have a higher proportion of girls versus boys of school going age in the districts affected by terrorism. Interestingly, the regressions indicate that households in the districts affected by terrorism reduce their expenditure on travelling (the estimated coefficient in Column (5) is statistically significant at the 5% level). This result is consistent with the likely decrease in safety in affected districts due to terrorism and therefore an impact on market activity. All regressions control for district and year fixed effects as well as district linear and quadratic trends and other household-level and district-level controls.

V. Discussion and Conclusion

[19] The correspondent robustness check for health expenditures is in Appendix Table 7.

This study contributes to the literature on the long-term effect of armed conflict on education using a case of the Punjab insurgency. We employ a large-scale cross-sectional data set and perform a baseline differences in differences analysis for the full sample and by gender, and a triple differences regression to examine the effect of conflict on schooling. Our results indicate that women who were of school age during the insurgency and who lived in districts that experienced a greater number of terrorist incidents and killings attained less schooling than men of similar age. This loss amounts to 0.83 to 0.91 years of schooling for a one standard deviation increase in terrorist activity measures. This is the net effect after controlling for the effect of conflict on women who were not of school age and men who were of school age at the time.

Human capital is an important determinant of economic growth especially for countries that have lower levels of education to begin with (Krueger and Lindahl, 2001). It is also one of the factors used by the United Nations to measure human development. Educational attainment by gender enters the gender equality indices. While many countries experience low scale insurgent activity, there is limited evidence of how human capital is affected by local insurgent activity in developing countries as suggested by Buvinic et al. (2014). Buvinic et al. also point towards an importance of more research on the effect of conflict on the differences in education by gender, as each country-conflict-case situation is unique. The severity and duration of the impact will help policymakers to take a corrective action. This study finds a significant negative effect of the insurgency in Punjab on educational attainment in the long run, and finds a negative effect that is mostly felt by women in rural areas which is consistent with the evidence which suggests that conflict took place mostly in villages. Kumar (2001) found that 71% of all victims were from rural areas. It is important to note that over the time, women achieved significant educational gains in India and in Punjab specifically. However, young women in districts of Punjab that experienced more insurgent activity were unable to attain their full educational potential.

This negative effect on female education may have implications for health, female bargaining power within a household and may generate inter-generational spillovers where children of women affected by the conflict have lower schooling as well. As the negative impact of conflict on schooling was concentrated in the rural areas, the conflict may have also contributed to the urban-rural human capital

divide. Our results are conditional on survival during and after the conflict and an absence of additional educational efforts by parents to compensate for the likely conflict impacts.

To explain the negative effect on women, we turn to the examination of the detailed farm surveys focused on household expenditure and collected during the time of insurgency in Punjab. Household expenditure on education in the districts affected by conflict decreased but only for affected households that had relatively higher ratio of girls to boys. This result suggests that reduction in household expenditure on education was one of the channels through which a shock imposed by the conflict hindered accumulation of human capital by women. Here, too, we use a conservative triple differences methodology to control for endogeneity problems to the greatest extent possible. Thus, in the context of conflict and associated with it constraints on resources, parents may prefer investing in the education of sons, while investments in daughters will be reduced to account for lower resources available. Investment in education of girls suffers disproportionately in families with both boys and girls, as a greater share of resources is allocated towards the education of their male siblings, and this is one possible way that parents engage in triage during shocks and unrest. Therefore, we may see a more pronounced gender inequality during conflict and at post-conflict times and this increase in inequality is likely to have serious implications for long-term human development for women.

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Figure 1a - Timeline of killings of civilians by terrorists, terrorists by security forces and security forces by terrorists in all incidents in the top panel

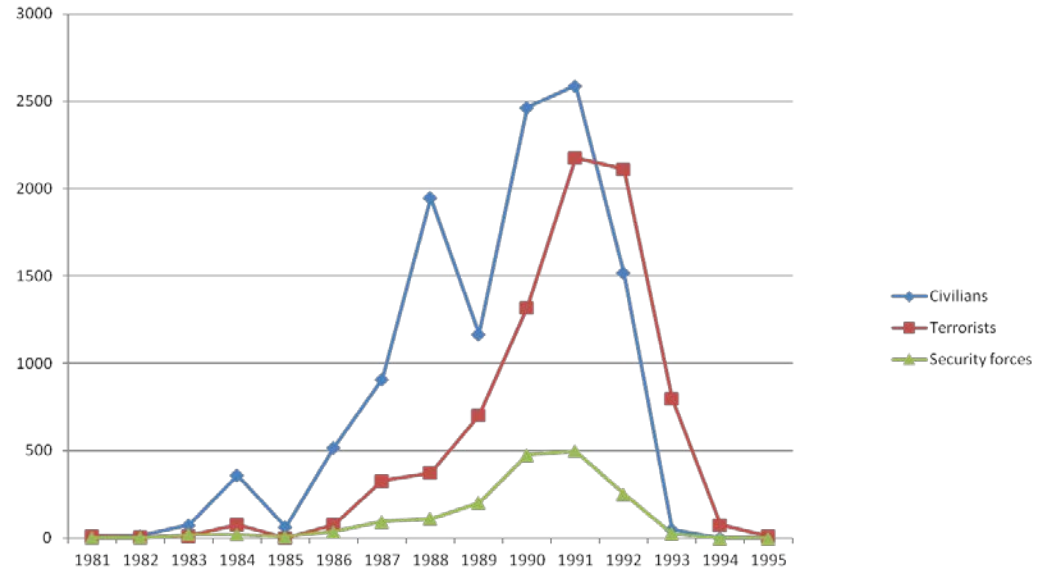
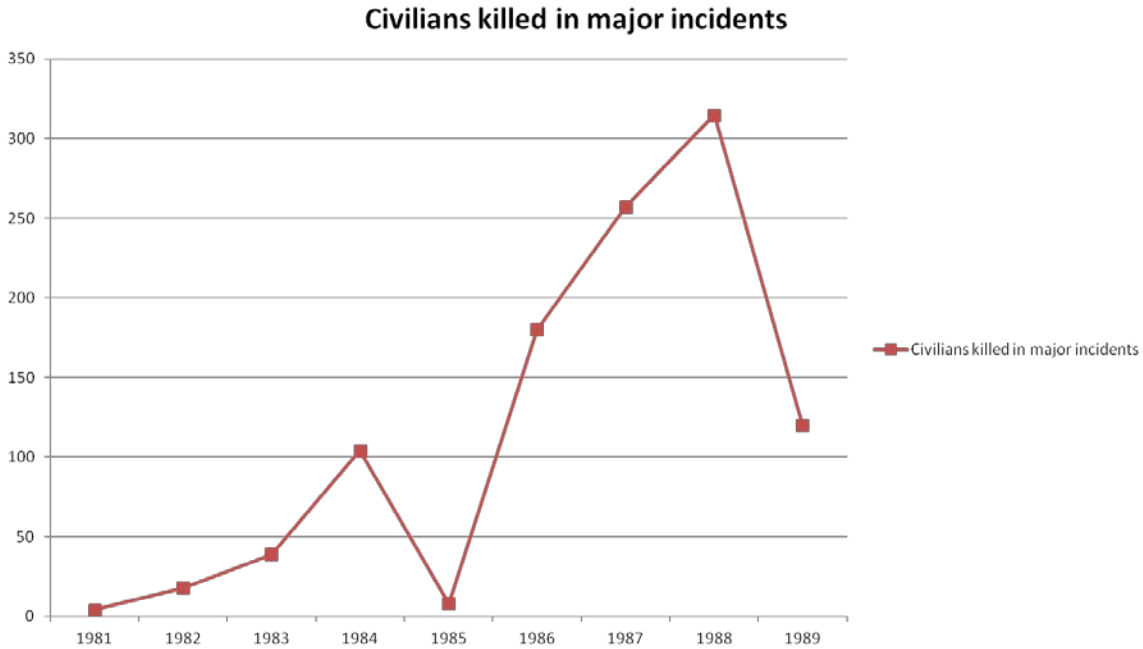


Figure 1b - Killings of civilians by terrorists



Sources: Data on terrorism incidents come from the South Asia Terrorism Portal and are described in Section III.2

Figure 2: Expenditures on Education [Source: Farm account surveys from Punjab Agricultural Department and terrorism data from South Asia Terrorism Portal]

Sources: Data are described in Section III.2

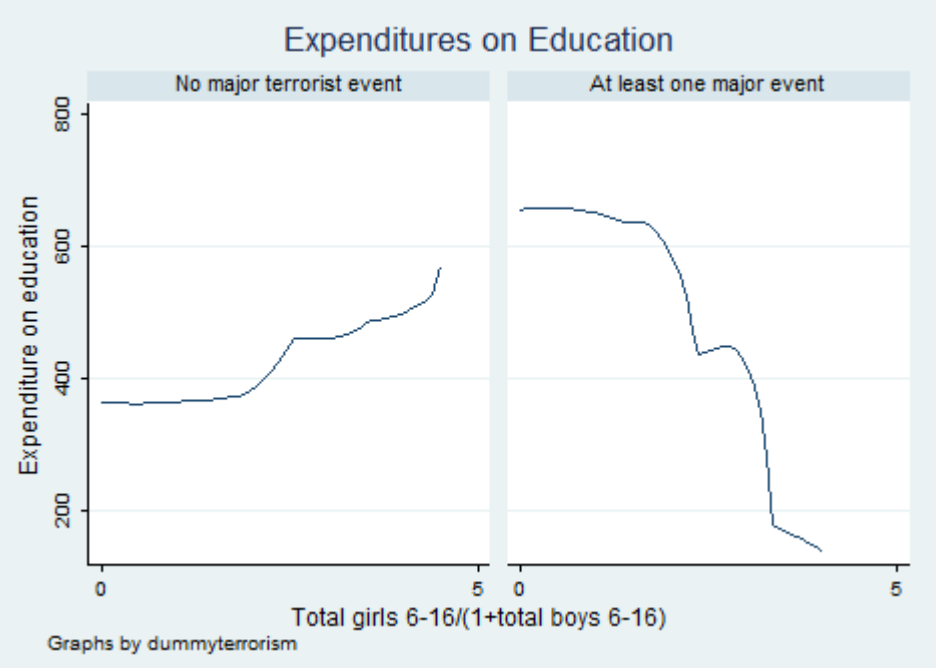


Table 1 - Summary statistics for the samples used in the analysis of the long-term effect of conflict on education.

Panel A: Affected cohort = 1 if born in 1965-1984, '0' for born in 1954-1964

Variable	N obs	Mean	Std. Dev.	Min	Max
Years of education	3879	6.80	4.97	0	15
N cases, 1981-1993	3912	53.71	42.06	17	187
N killings, 1981-1993	3912	317.23	224.84	78	950
Female (indicator)	3912	0.49	0.50	0	1
Age (years)	3912	34.05	8.64	21	51
War cohort (indicator)	3912	0.76	0.43	0	1
Urban (indicator)	3912	0.34	0.47	0	1
Caste/ religion indicators					
Brahmin	3912	0.06	0.24	0	1
High Caste	3912	0.13	0.34	0	1
Obc	3912	0.18	0.39	0	1
Dalit	3912	0.32	0.47	0	1
Sikh and Jain	3912	0.28	0.45	0	1
Adivasi	3912	0.00	0.04	0	1
Muslim	3912	0.01	0.10	0	1
Christian	3912	0.02	0.13	0	1
Other	3912	0.35	0.48	0	1

Panel B: Affected cohort = 1 if born in 1965-1987, '0' for born in 1954-1964

Variable	Obs	Mean	Std. Dev.	Min	Max
Years of education	4441	7.04	4.90	0	15
N cases, 1981-1993	4480	53.58	42.10	17	187
N killings, 1981-1993	4480	315.83	224.86	78	950
Female (indicator)	4480	0.49	0.50	0	1
Age (years)	4480	32.13	9.52	18	51
War cohort (indicator)	4480	0.79	0.41	0	1
Urban (indicator)	4480	0.34	0.47	0	1
Caste/ religion indicators					
Brahmin	4480	0.06	0.24	0	1
High Caste	4480	0.13	0.34	0	1
Obc	4480	0.18	0.39	0	1
Dalit	4480	0.33	0.47	0	1
Sikh and Jain	4480	0.27	0.45	0	1
Adivasi	4480	0.00	0.05	0	1
Muslim	4480	0.01	0.09	0	1
Christian	4480	0.02	0.13	0	1
Other	4480	0.36	0.48	0	1

Notes: "other" category includes: Dalit, Christian, Muslim, Adivasi. Data sources: 2005 Indian Human Development Survey (IHDS) and South Asian Terrorism Portal (SATP) as described in section III.2.

Table 2- Summary statistics for the samples used in the analysis of the short-term effect of conflict on education.

Variable	Obs	Mean	Std. Dev.	Min	Max
Education	510	463.82	727.04	0	8750
Medicine	510	535.60	641.20	0	7135
Food	510	13805.99	6650.03	1968.36	46327
Social	510	1021.27	2976.19	10	27700
Religion	510	226.81	369.20	5	4145
Lighting	510	397.44	323.76	13.6	2615
Traveling	510	508.32	507.90	15	6030
Rainfall	510	614.91	350.32	42	2520
Area held	510	4.87	2.51	1.21	21.46
Females under 5	510	0.38	0.67	0	4
Males under 5	510	0.46	0.77	0	4
Total girls 6-16	510	0.81	1.00	0	8
Total boys 6-16	510	0.80	1.02	0	4
Females over 16	510	2.80	1.42	1	8
Males over 16	510	2.91	1.53	1	10
Total family members	510	8.15	3.42	2	23
Terrorism	510	0.34	0.47	0	1

Notes: Education includes the school fees, cost of books and stationery. Medicines includes the cost on medicines used and payment made to physicians and doctors. Food includes cereals, pulses and all other articles which formed part of the daily diet of the cultivator's family. Social included expenses incurred on social occasions such as births, deaths, and marriage celebrations. Religion expenses are offerings made at places of worship and the alms given at religious functions. Lighting is the expenditure on lighting included the cost of electricity or oil consumed match-boxes and repairs and replacement of lamps. Travelling are fares paid for visits to shrines and relations, living at distant places and also the interest and depreciation on the cost of bicycles kept for this purpose. Rainfall is measured at the nearest weather station to the household in mm. Area held is the area held by the farming household in hectares. Females under 5 are the total number of females under the age of 5 year in the household surveyed and other demographic variables are defined in the same way. Terrorism is a dummy that takes a value 1 if there is a major terrorist incident in that district in that year.

Table 3.1 – Baseline estimates, full sample, difference in differences estimation.

Panel A: N cases	Affected cohort = 1 if born in 1965-1984, '0' for born in 1954-1964			Affected cohort = 1 if born in 1965-1987, '0' for born in 1954-1964		
	1	2	3	4	5	6
N cases*Affected	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
	(0.003)	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)
N cases, 1981-1993	-0.007	-0.004	-0.014***	-0.007	-0.004	-0.014***
	(0.004)	(0.004)	(0.002)	(0.004)	(0.004)	(0.002)
Urban residence	3.283***	2.822***	2.264***	3.112***	2.686***	2.189***
	(0.436)	(0.536)	(0.289)	(0.422)	(0.519)	(0.283)
Female	-1.564***	-1.580***	-1.581***	-1.405***	-1.399***	-1.378***
	(0.232)	(0.239)	(0.235)	(0.214)	(0.225)	(0.219)
Constant	6.736***	3.022***	4.955***	6.758***	3.319***	5.320***
	(0.957)	(0.925)	(0.751)	(0.964)	(0.929)	(0.764)
R squared	0.19	0.28	0.33	0.19	0.28	0.33
Panel B: N killings						
	1	2	3	4	5	6
N killings*Affected	0.000	0.000	0.000	0.000	0.000	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
N killings, 1981-1993	-0.001	-0.001	-0.003***	-0.001	-0.001	-0.003***
	(0.001)	(0.001)	0.000	(0.001)	(0.001)	0.000
Urban residence	3.265***	2.806***	2.265***	3.094***	2.669***	2.190***
	(0.440)	(0.537)	(0.289)	(0.428)	(0.520)	(0.284)
Female	-1.567***	-1.582***	-1.581***	-1.408***	-1.400***	-1.379***
	(0.231)	(0.238)	(0.235)	(0.213)	(0.224)	(0.219)
Constant	6.811***	3.089***	5.163***	6.834***	3.385***	5.532***
	(0.934)	(0.941)	(0.777)	(0.944)	(0.943)	(0.794)
R squared	0.19	0.28	0.33	0.19	0.28	0.33
Caste controls	No	Yes	Yes	No	Yes	Yes
District FE	No	No	Yes	No	No	Yes
N	3879	3879	3879	4441	4441	4441

Notes: Robust standard errors in parentheses, clustered at the district level. * significant at 10%; ** significant at 5%; *** significant at 1%. The dependent variable is the years of education attained. All regressions include year of birth fixed effects. Caste (and religious affiliation) controls include dummy variables for an individual being Brahmin, High Caste, Sikh, other Backward Caste (OBC) and 'other category' used as a reference group. "Other category" includes members of Dalit caste, Christians, Muslims and Adivasi. Data sources: 2005 Indian Human Development Survey (IHDS) and South Asian Terrorism Portal (SATP) as described in section III.2.

Table 3.2 – Baseline model estimates, Men: effect of conflict on education.

Panel A: N cases	Affected cohort = 1 if born in 1965-1984, '0' for born in 1954-1964			Affected cohort = 1 if born in 1965-1987, '0' for born in 1954-1964		
	1	2	3	4	5	6
N cases*Affected	0.004	0.006*	0.005**	0.003	0.005*	0.005*
	(0.004)	(0.003)	(0.002)	(0.004)	(0.002)	(0.002)
N cases, 1981-1993	-0.011**	-0.008**	-0.018***	-0.011**	-0.008**	-0.017***
	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.002)
Urban residence	2.846***	2.394***	1.986***	2.597***	2.226***	1.858***
	(0.394)	(0.473)	(0.301)	(0.379)	(0.463)	(0.289)
Constant	7.509***	3.036***	4.805***	7.651***	3.592***	5.265***
	(0.536)	(0.593)	(0.626)	(0.501)	(0.645)	(0.681)
R squared	0.15	0.25	0.29	0.15	0.24	0.28
Panel B: N killings						
	1	2	3	4	5	6
N killings*Affected	0.001	0.002*	0.001**	0.001	0.001*	0.001*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
N killings, 1981-1993	-0.002***	-0.002**	-0.004***	-0.002**	-0.002**	-0.004***
	(0.001)	(0.001)	0.000	(0.001)	(0.001)	(0.001)
Urban residence	2.829***	2.376***	1.983***	2.581***	2.208***	1.856***
	(0.396)	(0.471)	(0.302)	(0.382)	(0.462)	(0.290)
Constant	7.679***	3.197***	5.080***	7.824***	3.756***	5.549***
	(0.570)	(0.630)	(0.640)	(0.538)	(0.688)	(0.698)
R squared	0.15	0.25	0.29	0.14	0.24	0.28
Caste controls	No	Yes	Yes	No	Yes	Yes
District FE	No	No	Yes	No	No	Yes
N	1969	1969	1969	2274	2274	2274

Notes: as for Table 3.1.

Table 3.3 - Baseline model estimates, Women: effect of conflict on education.

Panel A: N cases	Affected cohort = 1 if born in 1965-1984, '0' for born in 1954-1964			Affected cohort = 1 if born in 1965-1987, '0' for born in 1954-1964		
	1	2	3	4	5	6
N cases*Affected	-0.009*	-0.010**	-0.011**	-0.009**	-0.009**	-0.010**
	(0.004)	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)
N cases, 1981-1993	-0.004	0.002	-0.010***	-0.004	0.002	-0.010***
	(0.007)	(0.006)	(0.003)	(0.007)	(0.006)	(0.003)
Urban residence	3.765***	3.306***	2.599***	3.683***	3.201***	2.543***
	(0.491)	(0.614)	(0.337)	(0.478)	(0.588)	(0.323)
Constant	4.175	0.516	3.034	4.17	0.743	3.466*
	(2.359)	(2.242)	(1.931)	(2.358)	(2.189)	(1.885)
R squared	0.22	0.31	0.38	0.23	0.32	0.39
Panel B: N killings						
	1	2	3	4	5	6
N killings*Affected	-0.001	-0.002	-0.002*	-0.001	-0.001*	-0.002*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
N killings, 1981-1993	0.000	0.000	-0.002***	0.000	0.000	-0.002***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Urban residence	3.740***	3.284***	2.600***	3.655***	3.176***	2.542***
	(0.499)	(0.617)	(0.338)	(0.488)	(0.592)	(0.324)
Constant	4.142	0.474	3.186	4.137	0.699	3.615*
	(2.335)	(2.240)	(1.959)	(2.334)	(2.184)	(1.907)
R squared	0.21	0.31	0.38	0.23	0.32	0.39
Caste controls	No	Yes	Yes	No	Yes	Yes
District FE	No	No	Yes	No	No	Yes
N	1969	1969	1969	2274	2274	2274

Notes: as for Table 3.1.

Table 4 - Full sample, Determinants of the years of education attained. Testing for gender-differential impacts of conflict.

Panel A: N Cases	Affected cohort = 1 if born in 1965-1984, '0' for born in 1954-1964			Affected cohort = 1 if born in 1965-1987, '0' for born in 1954-1964		
	1	2	3	4	5	6
N cases* Female	-0.014***	-0.016***	-0.016***	-0.012***	-0.014***	-0.014***
*Affected	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
N cases* Affected	0.004	0.006**	0.006**	0.004	0.005*	0.005**
	(0.003)	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)
Female* War Cohort	1.631***	1.888***	1.932***	1.730***	1.988***	2.060***
	(0.395)	(0.425)	(0.408)	(0.390)	(0.417)	(0.405)
N cases, 1981-1993	-0.011***	-0.008**	-0.018***	-0.011***	-0.008**	-0.018***
	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.002)
Female	-2.681***	-2.891***	-2.926***	-2.683***	-2.880***	-2.912***
	(0.498)	(0.497)	(0.473)	(0.498)	(0.495)	(0.470)
N cases*Female	0.008	0.010*	0.010*	0.008	0.010*	0.010*
	(0.005)	(0.005)	(0.004)	(0.005)	(0.005)	(0.004)
Urban residence	3.284***	2.820***	2.263***	3.114***	2.684***	2.188***
	(0.437)	(0.536)	(0.284)	(0.424)	(0.520)	(0.281)
Constant	7.133***	3.448***	5.431***	7.201***	3.793***	5.844***
	(0.953)	(0.892)	(0.724)	(0.943)	(0.897)	(0.748)
R squared	0.20	0.28	0.34	0.20	0.28	0.33
Panel B: N killings						
	1	2	3	4	5	6
N killings* Female	-0.003***	-0.003***	-0.003***	-0.003***	-0.003***	-0.003***
*Affected	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
N killings* Affected	0.001	0.002**	0.001**	0.001	0.001*	0.001*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Female* War Cohort	1.749***	1.995***	2.020***	1.880***	2.121***	2.176***
	(0.466)	(0.500)	(0.491)	(0.463)	(0.493)	(0.484)
N killings, 1981-1993	-0.002***	-0.002**	-0.004***	-0.002***	-0.002*	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Female	-2.799***	-2.996***	-3.023***	-2.803***	-2.988***	-3.012***
	(0.567)	(0.567)	(0.541)	(0.568)	(0.564)	(0.538)
N cases*Female	0.002	0.002*	0.002*	0.002	0.002*	0.002*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Urban residence	3.264***	2.800***	2.261***	3.093***	2.664***	2.186***
	(0.442)	(0.537)	(0.286)	(0.430)	(0.521)	(0.282)
Constant	7.278***	3.582***	5.701***	7.349***	3.928***	6.122***
	(0.969)	(0.920)	(0.773)	(0.961)	(0.926)	(0.803)
R squared	0.19	0.28	0.34	0.19	0.28	0.33
Caste controls	No	Yes	Yes	No	Yes	Yes
District FE	No	No	Yes	No	No	Yes
N	3879	3879	3879	4441	4441	4441

Notes: as for Table 3.1

Table 5.1 – Differences in differences regressions: rural sub-sample. Determinants of the years of education attained.

Panel A: ALL	Affected cohort = 1 if born in 1965-1984, '0' for born in 1954-1964			Affected cohort = 1 if born in 1965-1987, '0' for born in 1954-1964		
N Cases	1	2	3	4	5	6
N cases*Affected	-0.004	-0.003	-0.003	-0.005	-0.004	-0.003
	(0.004)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)
R squared	0.13	0.20	0.29	0.14	0.22	0.30
Panel B: N of killings	1	2	3	4	5	6
N killings*Affected	0.000	0.000	0.000	-0.001	0.000	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
R squared	0.13	0.20	0.29	0.14	0.22	0.30
N	2552	2552	2552	2919	2919	2919
Panel B: Male						
N Cases	1	2	3	4	5	6
N cases*Affected	0.004	0.005	0.005	0.003	0.004	0.004
	(0.005)	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)
R squared	0.09	0.18	0.24	0.11	0.19	0.26
Panel B: N of killings	1	2	3	4	5	6
N killings*Affected	0.001	0.001	0.001	0.001	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
R squared	0.09	0.18	0.24	0.10	0.19	0.26
N	1301	1301	1301	1504	1504	1504
Panel C: Female						
N Cases	1	2	3	4	5	6
N cases*Affected	-0.014***	-0.014***	-0.014***	-0.013***	-0.013***	-0.014***
	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.004)
R squared	0.13	0.20	0.32	0.15	0.22	0.34
N of killings	1	2	3	4	5	6
N killings*Affected	-0.002*	-0.002*	-0.002*	-0.002**	-0.002**	-0.002**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
R squared	0.12	0.20	0.32	0.15	0.22	0.34
N	1251	1251	1251	1415	1415	1415
Caste controls	no	yes	yes	no	yes	yes
District FE	no	no	yes	no	no	yes

Notes: Robust standard errors in parentheses, clustered at the district level. * significant at 10%; ** significant at 5%; *** significant at 1%. The dependent variable is the years of education attained. All regressions include year of birth fixed effects. Caste (and religious affiliation) controls include dummy variables for an individual being Brahmin, High Caste, Sikh, other Backward Caste (OBC) and 'other category' used as a reference group. "Other category" includes members of Dalit caste, Christians, Muslims and Adivasi. All regressions include a constant term, a variable measuring conflict exposure, and indicator variables for "female" and "urban". Data sources: 2005 Indian Human Development Survey (IHDS) and South Asian Terrorism Portal (SATP) as described in section III.2.

Table 5.2 – Triple differences: rural sub-sample. Determinants of the years of education attained. Testing for gender-differential impacts of conflict.

Panel A: N Cases	Affected cohort = 1 if born in 1965-1984, '0' for born in 1954-1964			Affected cohort = 1 if born in 1965-1987, '0' for born in 1954-1964		
	1	2	3	4	5	6
N cases * Female	-0.017***	-0.018***	-0.018***	-0.015***	-0.016***	-0.017***
*Affected	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.002)
N cases* Affected	0.004	0.005	0.006	0.002	0.004	0.005
	(0.005)	(0.004)	(0.003)	(0.005)	(0.004)	(0.003)
Female* War	1.471***	1.590***	1.634***	1.497***	1.660***	1.770***
Cohort	(0.198)	(0.198)	(0.154)	(0.151)	(0.156)	(0.151)
N cases, 1981-	-0.011*	-0.010*	-0.018***	-0.011*	-0.010*	-0.017***
1993	(0.005)	(0.005)	(0.003)	(0.005)	(0.005)	(0.003)
Female	-2.951***	-3.046***	-3.064***	-2.951***	-3.043***	-3.063***
	(0.335)	(0.368)	(0.288)	(0.335)	(0.361)	(0.280)
N cases*Female	0.012**	0.012**	0.012***	0.012**	0.012**	0.012***
	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)	(0.003)
Constant	8.204***	3.611**	5.467***	8.204***	3.882**	5.624***
	(1.358)	(1.302)	(1.247)	(1.357)	(1.249)	(1.221)
R squared	0.13	0.20	0.29	0.15	0.22	0.30
Panel B: N Killings						
	1	2	3	4	5	6
N killings* Female	-0.003***	-0.003***	-0.003***	-0.003***	-0.003***	-0.003***
*Affected	(0.000)	-(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
N killings*	0.001	0.001	0.001	0.001	0.001	0.001
Affected	-(0.001)	-(0.001)	-(0.001)	-(0.001)	-(0.001)	-(0.001)
Female* War	1.581***	1.694***	1.743***	1.620***	1.770***	1.897***
Cohort	(0.226)	(0.247)	(0.209)	(0.185)	(0.211)	(0.208)
N killings, 1981-	-0.002*	-0.002*	-0.001	-0.002*	-0.002*	-0.001
1993	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Female	-3.088***	-3.178***	-3.207***	-3.088***	-3.176***	-3.206***
	(0.385)	(0.435)	(0.354)	(0.385)	(0.427)	(0.346)
N cases*Female	0.002**	0.002**	0.003**	0.002**	0.002**	0.003**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Constant	8.342***	3.734**	3.226*	8.342***	3.999**	3.071*
	(1.395)	(1.332)	(1.478)	(1.394)	(1.268)	(1.456)
R squared	0.13	0.20	0.29	0.14	0.22	0.30
Caste controls	No	Yes	Yes	No	Yes	Yes
District FE	No	No	Yes	No	No	Yes
N	2552	2552	2552	2919	2919	2919

Notes: as for Table 3.1.

Table 6.1 – Differences in differences: Non-migrant sub-sample: stayed in the locality for all their life.

	Panel A: Full sample					
N cases	Affected cohort = 1 if born in 1965-1984, '0' for born in 1954-1964			Affected cohort = 1 if born in 1965-1987, '0' for born in 1954-1964		
	1	2	3	4	5	6
N cases*Affected	-0.002	-0.001	-0.001	-0.002	-0.001	-0.001
	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
N cases, 1981-1993	-0.008*	-0.005	-0.015***	-0.008*	-0.005	-0.015***
	(0.004)	(0.004)	(0.002)	(0.004)	(0.004)	(0.002)
R squared	0.20	0.29	0.34	0.20	0.28	0.34
N killings	1	2	3	4	5	6
N killings*Affected	0.000	0.000	0.000	0.000	0.000	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
N killings, 1981-1993	-0.001	-0.001	-0.003***	-0.001	-0.001	-0.003***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
R squared	0.20	0.29	0.34	0.20	0.28	0.34
N	3476	3476	3476	4000	4000	4000
	Panel B: Male					
N cases	1	2	3	4	5	6
N cases*Affected	0.006	0.008**	0.008**	0.005	0.006*	0.006**
	(0.004)	(0.003)	(0.002)	(0.004)	(0.003)	(0.002)
N cases, 1981-1993	-0.012***	-0.010***	-0.019***	-0.012***	-0.010***	-0.019***
	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.002)
R squared	0.16	0.24	0.29	0.15	0.23	0.28
N killings	1	2	3	4	5	6
N killings*Affected	0.002	0.002**	0.002***	0.001	0.002**	0.001**
	(0.001)	(0.001)	0.000	(0.001)	(0.001)	(0.001)
N killings, 1981-1993	-0.002**	-0.002**	-0.004***	-0.002**	-0.002**	-0.004***
	(0.001)	(0.001)	0.000	(0.001)	(0.001)	0.000
R squared	0.15	0.24	0.29	0.14	0.23	0.28
N	1764	1764	1764	2046	2046	2046
	Panel C: Female					
N cases	1	2	3	4	5	6
N cases*Affected	-0.011*	-0.011**	-0.011**	-0.010*	-0.010**	-0.010*
	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.005)
N cases, 1981-1993	-0.004	0.002	-0.011**	-0.003	0.002	-0.012**
	(0.007)	(0.007)	(0.004)	(0.007)	(0.007)	(0.004)
R squared	0.24	0.33	0.40	0.25	0.33	0.40
Panel B: N killings	1	2	3	4	5	6
N killings*Affected	-0.002	-0.002	-0.002	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
N killings, 1981-1993	0.000	0.000	-0.003**	0.000	0.000	-0.003**
	(0.002)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)
R squared	0.23	0.32	0.40	0.24	0.33	0.40
N	1712	1712	1712	1954	1954	1954
Caste controls	No	Yes	Yes	No	Yes	Yes
District FE	No	No	Yes	No	No	Yes

Notes: sub-sample of individuals coming from households that did not move during their lifetime. Panel A includes controls for “Female” and “Urban” dummies, Panels B and C include controls for “Urban” only. The rest of notes as for Table 3.1.

Table 6.2 – Triple differences regressions. Non-migrant sub-sample. Years of education attained

Panel A: N Cases	Affected cohort = 1 if born in 1965-1984, '0' for born in 1954-1964			Affected cohort = 1 if born in 1965-1987, '0' for born in 1954-1964		
	1	2	3	4	5	6
N cases* Female *Affected	-0.017***	-0.019***	-0.018***	-0.015***	-0.017***	-0.016***
	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)
N cases* Affected	0.006	0.008**	0.008***	0.005	0.007**	0.007**
	(0.004)	(0.003)	(0.002)	(0.003)	(0.003)	(0.002)
Female* War Cohort	1.973***	2.226***	2.171***	2.013***	2.273***	2.260***
	(0.393)	(0.396)	(0.369)	(0.400)	(0.411)	(0.386)
N cases, 1981-1993	-0.013***	-0.010***	-0.020***	-0.013***	-0.010**	-0.020***
	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.002)
Female	-2.909***	-3.119***	-3.056***	-2.911***	-3.107***	-3.042***
	(0.554)	(0.549)	(0.512)	(0.557)	(0.548)	(0.508)
N cases*Female	0.010*	0.011*	0.010*	0.010*	0.011*	0.010*
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Urban residence	3.542***	3.082***	2.545***	3.334***	2.909***	2.439***
	(0.548)	(0.565)	(0.347)	(0.541)	(0.552)	(0.349)
Constant	6.766***	2.711**	4.681***	6.818***	3.073**	5.101***
	(1.138)	(0.951)	(0.853)	(1.117)	(0.949)	(0.896)
R squared	0.21	0.29	0.35	0.20	0.29	0.34
Panel B: N killings						
	1	2	3	4	5	6
N killings* Female *Affected	-0.003***	-0.003**	-0.003**	-0.003***	-0.003**	-0.003**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
N killings* Affected	0.002*	0.002***	0.002***	0.001	0.002**	0.001***
	(0.001)	(0.001)	0.000	(0.001)	(0.001)	0.000
Female* War Cohort	2.024***	2.247***	2.146***	2.094***	2.321***	2.269***
	(0.451)	(0.462)	(0.448)	(0.462)	(0.474)	(0.451)
N killings, 1981-1993	-0.002**	-0.002**	-0.004***	-0.002**	-0.002**	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Female	-2.983***	-3.175***	-3.089***	-2.987***	-3.167***	-3.078***
	(0.630)	(0.627)	(0.581)	(0.633)	(0.625)	(0.576)
N cases*Female	0.002	0.002*	0.002	0.002	0.002*	0.002
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Urban residence	3.509***	3.052***	2.543***	3.301***	2.879***	2.436***
	(0.554)	(0.566)	(0.348)	(0.547)	(0.552)	(0.350)
Constant	6.859***	2.809**	4.930***	6.915***	3.173***	5.359***
	(1.088)	(0.929)	(0.928)	(1.070)	(0.929)	(0.974)
R squared	0.20	0.29	0.35	0.20	0.28	0.34
Caste controls	No	Yes	Yes	No	Yes	Yes
District FE	No	No	Yes	No	No	Yes
N	3476	3476	3476	4000	4000	4000

Notes: Notes: sub-sample of individuals coming from households that did not move during their lifetime. The rest of the notes as for Table 3.1.

Table 7 - Educational Expenditure

	Education	Education	Education	Education
	(1)	(2)	(3)	(4)
Terrorism	163.5*	167.1*	144.8*	107.4
	(89.91)	(100.6)	(74.52)	(73.62)
Ratio6_16	49.35	39.59	58.51*	57.48
	(30.85)	(29.99)	(34.00)	(35.07)
Ratio6_16*Terrorism	-115.6*	-104.9*	-121.9*	-118.0*
	(59.80)	(58.54)	(63.56)	(61.66)
Constant	-73.35	434.1	1043.7*	471.8
	(98.68)	(791.8)	(537.2)	(640.6)
District fixed effects	X	X	X	X
Year fixed effects	X	X	X	X
Other controls		X	X	X
District-linear trends			X	X
District-quadratic trends				X
Observations	510	510	510	510
Adjusted R-squared	0.152	0.183	0.231	0.223

Notes: Robust standard errors in parentheses clustered at the village level. Terrorism is a dummy that takes a value 1 if there is a major terrorist incident in that district in that year. Ratio6_16 is defined as total females in household between 6-16 years divided by 1+total males in household between 6-16 years. District fixed-effects are dummies for each of the twelve districts. Year fixed effects include dummies for all years post 1981 when terrorism begins. Other controls are annual district income, area under each type of soil (sandy, sandy loam, loam, clay loam, clay), rainfall measured at the nearest weather station, area of plot in hectares and total number of adult members. District-linear and quadratic trends are within district twelve linear and twelve quadratic time trends. Education included the school fees, cost of books and stationery.
*** p<0.01, ** p<0.05, * p<0.1.

Table 8 - Heterogeneous gender differential effects depending on age-group within school-children

	Education	Education
	(1)	(2)
Terrorism	164.5*	127.6
	(84.12)	(84.56)
Ratio6_12	31.91	35.99
	(44.53)	(48.26)
Ratio6_12 *Terrorism	-134.6	-138.3
	(90.49)	(94.79)
Ratio13_16	43.86	38.43
	(32.17)	(31.50)
Ratio13_16*Terrorism	-145.2	-141.1
	(122.5)	(125.3)
Constant	1066.0*	564.2
	(541.9)	(562.8)
District fixed effects	X	X
Year fixed effects	X	X
Other controls	X	X
District-linear trends	X	X
District-quadratic trends		X
Observations	510	510
Adjusted R-squared	0.229	0.221

Notes: Robust standard errors in parentheses clustered at the village level. Terrorism is a dummy that takes a value 1 if there is a major terrorist incident in that district in that year. Ratio6_12 is defined as total females in household between 6-12 years divided by 1+ total males in household between 6-12 years. Ratio13_16 is defined as total females in household between 13 and 16 years divided by 1+total males in household between 13 and 16 years. District fixed-effects are dummies for each of the twelve districts. Year fixed effects include dummies for all years post 1981 when terrorism begins. Other controls are annual district income, area under each type of soil (sandy, sandy loam, loam, clay loam, clay), rainfall measured at the nearest weather station, area of plot in hectares and total number of adult members. District-linear and quadratic trends are within district twelve linear and twelve quadratic time trends. Education included the school fees, cost of books and stationery.
*** p<0.01, ** p<0.05, * p<0.1.

Table 9 - Family Composition and Educational Expenditures

	Only girls	Only boys	Both
	(1)	(2)	(3)
Terrorism	-50.20	303.4	-205.5
	(232.4)	(199.8)	(134.2)
Total adult members	30.67	-71.67	17.23
	(50.66)	(64.22)	(16.13)
Constant	4350.1	462.6	1235.4
	(2874.3)	(4927.5)	(2054.3)
District fixed effects	X	X	X
Year fixed effects	X	X	X
Other controls	X	X	X
District-linear trends	X	X	X
District-quadratic trends	X	X	X
Observations	112	99	148
Adjusted R-squared	-0.103	0.235	0.084

Notes: Robust standard errors in parentheses clustered at the village level. Terrorism is a dummy that takes a value 1 if there is a major terrorist incident in that district in that year. District fixed-effects are dummies for each of the twelve districts. Year fixed effects include dummies for all years post 1981 when terrorism begins. Other controls are annual district income, area under each type of soil (sandy, sandy loam, loam, clay loam, clay), rainfall measured at the nearest weather station, area of plot in hectares and total number of adult members. District-linear and quadratic trends are within district twelve linear and twelve quadratic time trends. Education included the school fees, cost of books and stationery. Medicines included the cost on medicines used and payment made to physicians and doctors.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 10 - Placebo for other age groups: Education

	Panel A: Below 6				Panel B: Over 16			
	Education	Education	Education	Education	Education	Education	Education	Education
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Terrorism	161.5	164.2	134.5	93.01	97.71	89.49	67.75	10.42
	(108.0)	(114.9)	(86.06)	(90.38)	(148.1)	(124.3)	(136.8)	(152.7)
Ratiobelow6	69.40	71.45	64.23	71.26				
	(69.76)	(62.72)	(62.36)	(68.73)				
Ratiobelow6 *Terrorism	-177.6	-161.1	-160.0	-160.2				
	(151.9)	(119.6)	(115.1)	(121.3)				
Ratioover16					38.47	11.46	28.97	44.71
					(63.87)	(69.77)	(69.98)	(71.66)
Ratioover16*Terrorism					21.64	44.12	32.77	58.93
					(228.6)	(214.4)	(207.3)	(223.6)
Constant	-60.39	461.9	1097.0**	532.7	-66.87	648.0	1051.2**	506.9
	(109.9)	(797.0)	(540.3)	(643.6)	(112.4)	(805.4)	(512.5)	(647.2)
District fixed effects	X	X	X	X	X	X	X	X
Year fixed effects	X	X	X	X	X	X	X	X
Other controls		X	X	X		X	X	X
District-linear trends			X	X			X	X
District-quadratic trends				X				X
Observations	510	510	510	510	510	510	510	510
Adjusted R-squared	0.152	0.184	0.230	0.223	0.149	0.181	0.227	0.221

Notes: Robust standard errors in parentheses clustered at the village level. Terrorism is a dummy that takes a value 1 if there is a major terrorist incident in that district in that year. Ratiobelow6 is defined as total females in household below 6 years divided by 1+total males in household below 6 years. Ratioover16 is defined as total females in household over 6 years divided by 1+total males in household over 16 years. District fixed-effects are dummies for each of the twelve districts. Year fixed effects include dummies for all years post 1981 when terrorism begins. Other controls are annual district income, area under each type of soil (sandy, sandy loam, loam, clay loam, clay), rainfall measured at the nearest weather station, area of plot in hectares and total number of adult members. District-linear and quadratic trends are within district twelve linear and twelve quadratic time trends. Education included the school fees, cost of books and stationery.
*** p<0.01, ** p<0.05, * p<0.1.

Table 11 - Educational Expenditure (with totalboys 6-16, totalgirls 6-16)

	Education	Education	Education	Education
	(1)	(2)	(3)	(4)
Terrorism	195.6*	239.6*	210.5*	170.6
	(111.4)	(140.2)	(111.1)	(110.8)
Totalgirls6_16	34.92	23.78	31.36	30.97
	(22.65)	(21.52)	(23.76)	(24.42)
Totalboys6_16	7.670	4.350	-4.066	-6.083
	(20.85)	(24.10)	(21.83)	(20.74)
Totalgirls6_16 * Terrorism	-81.08*	-94.09**	-99.13**	-98.42**
	(44.87)	(45.81)	(49.45)	(48.33)
Totalboys6_16 * Terrorism	-28.42	-62.67	-54.94	-51.21
	(45.91)	(57.10)	(55.05)	(55.03)
Constant	-80.06	615.8	1013.8*	433.3
	(104.4)	(815.1)	(524.8)	(628.7)
District fixed effects	X	X	X	X
Year fixed effects	X	X	X	X
Other controls		X	X	X
District-linear trends			X	X
District-quadratic trends				X
Observations	510	510	510	510
Adjusted R-squared	0.148	0.183	0.230	0.222

Notes: Robust standard errors in parentheses clustered at the village level. Terrorism is a dummy that takes a value 1 if there is a major terrorist incident in that district in that year. Totalgirls6_16 is defined as total females in household between 6-16 years. Totalboys6_16 is defined as total males in household between 6-16 years. District fixed-effects are dummies for each of the twelve districts. Year fixed effects include dummies for all years post 1981 when terrorism begins. Other controls are annual district income, area under each type of soil (sandy, sandy loam, loam, clay loam, clay), rainfall measured at the nearest weather station, area of plot in hectares and total number of adult members. District-linear and quadratic trends are within district twelve linear and twelve quadratic time trends. Education included the school fees, cost of books and stationery.
*** p<0.01, ** p<0.05, * p<0.1.

Tables 12 - Expenditure on other household items

	Food	Social	Religion	Lighting	Travelling
	(1)	(2)	(3)	(4)	(5)
Terrorism	-182.2	310.8	33.57	-16.56	-135.7**
	(662.7)	(641.2)	(35.10)	(18.71)	(59.51)
Ratio6_16	177.3	265.0	-10.94	13.07	-10.30
	(295.2)	(167.3)	(6.802)	(17.86)	(15.62)
Ratio6_16*Terrorism	-316.4	-649.1	-38.08	-32.06	79.17
	(485.0)	(449.1)	(28.67)	(26.33)	(59.30)
Constant	3247.9	-762.4	-489.2	-149.7	-739.5**
	(5026.2)	(3217.9)	(304.2)	(216.2)	(348.3)
District fixed effects	X	X	X	X	X
Year fixed effects	X	X	X	X	X
Other controls	X	X	X	X	X
District-linear trends	X	X	X	X	X
District-quadratic trends	X	X	X	X	X
Observations	510	510	510	510	510
Adjusted R-squared	0.542	0.197	0.334	0.601	0.365

Notes: Robust standard errors in parentheses clustered at the village level. Terrorism is a dummy that takes a value 1 if there is a major terrorist incident in that district in that year. Ratio6_16 is defined as total females in household between 6-16 years divided by 1+total males in household between 6-16 years. District fixed-effects are dummies for each of the twelve districts. Year fixed effects include dummies for all years post 1981 when terrorism begins. Other controls are annual district income, area under each type of soil (sandy, sandy loam, loam, clay loam, clay), rainfall measured at the nearest weather station, area of plot in hectares and total number of adult members. District-linear and quadratic trends are within district twelve linear and twelve quadratic time trends. Food includes cereals, pulses and all other articles which formed part of the daily diet of the cultivator's family. Social included expenses incurred on social occasions such as births, deaths, and marriage celebrations. Religion expenses are offerings made at places of worship and the alms given at religious functions. Lighting is the expenditure on lighting included the cost of electricity or oil consumed match-boxes and repairs and replacement of lamps. Travelling are fares paid for visits to shrines and relations, living at distant places and also the interest and depreciation on the cost of bicycles kept for this purpose. The cost of repairs, replacement and maintenance of the riding equipment was also included under this head.
*** p<0.01, ** p<0.05, * p<0.1.

Appendix Table 1 – Placebo: Young cohorts vs. Old cohorts

	Panel A: Conflict exposure: N cases			Panel B: Conflict exposure: N Killings		
	(1)	(2)	(3)	(4)	(5)	(6)
Placebo treat* Female * Conflict	-0.003	-0.004	-0.005	-0.001	-0.001	-0.001
	(0.003)	(0.003)	(0.003)	(0.001)	(0.001)	(0.001)
Placebo	1.123***	1.412***	1.495***	1.120***	1.414***	1.495***
	(0.299)	(0.287)	(0.277)	(0.299)	(0.286)	(0.277)
Placebo* Female	2.311***	2.365***	2.428***	2.295***	2.371***	2.425***
	(0.245)	(0.259)	(0.283)	(0.276)	(0.269)	(0.301)
Conflict, 1981-1993	-0.004	-0.003	-0.010***	-0.001	-0.001	-0.002***
	(0.003)	(0.003)	(0.001)	0.000	(0.001)	0.000
Female	-1.973***	-2.158***	-2.261***	-2.005***	-2.200***	-2.308***
	(0.233)	(0.208)	(0.225)	(0.273)	(0.243)	(0.260)
Female * Conflict	-0.002	0.001	0.002	0.0000	0.0000	0.001
	(0.003)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)
Urban residence	2.691***	2.326***	1.849***	2.672***	2.316***	1.847***
	(0.334)	(0.456)	(0.197)	(0.341)	(0.454)	(0.197)
Constant	5.684***	3.436***	5.169***	5.677***	3.450***	5.275***
	(0.473)	(0.852)	(0.450)	(0.490)	(0.860)	(0.433)
Caste controls	No	Yes	Yes	No	Yes	Yes
District FE	No	No	Yes	No	No	Yes
N	2008	2008	2008	2008	2008	2008
R squared	0.16	0.25	0.29	0.16	0.25	0.29

Notes: 'Placebo treat' stands for the cohort born in 1988-1991, control group is born in 1954-1965. Dependent variable: N of years of education completed (using levels of education as a proxy). Robust standard errors in parentheses, clustered at the district level. * significant at 10%; ** significant at 5%; *** significant at 1%. The dependent variable is the years of education attained. Caste (and religious affiliation) controls include dummy variables for an individual being Brahmin, High Caste, Sikh, other Backward Caste (OBC) and 'other category' used as a reference group. "Other category" includes members of Dalit caste, Christians, Muslims and Adivasi. Data sources: 2005 Indian Human Development Survey (IHDS) and South Asian Terrorism Portal (SATP) as described in section III.2.

Appendix Table 2 – Placebo: Old cohorts vs. Older cohorts

	Panel A: Conflict exposure: N cases			Panel B: Conflict exposure: N Killings		
	(1)	(2)	(3)	(4)	(5)	(6)
Placebo treat* Female * Conflict	0.012*	0.012	0.011	0.003**	0.003*	0.003
	(0.005)	(0.007)	(0.007)	(0.001)	(0.002)	(0.001)
Placebo	1.238***	1.128***	0.924**	1.235***	1.125***	0.921**
	(0.375)	(0.331)	(0.297)	(0.374)	(0.328)	(0.296)
Placebo* Female	-1.599**	-1.469**	-1.086*	-1.811***	-1.722**	-1.318**
	(0.523)	(0.568)	(0.546)	(0.526)	(0.538)	(0.518)
Conflict, 1981-1993	-0.011***	-0.008**	-0.012***	-0.002***	-0.002*	-0.002***
	(0.003)	(0.003)	(0.002)	(0.001)	(0.001)	0.000
Female	-1.709***	-2.039***	-2.260***	-1.704***	-2.007***	-2.242***
	(0.365)	(0.492)	(0.488)	(0.418)	(0.553)	(0.554)
Female * Conflict	0.001	0.003	0.004	0.000	0.000	0.001
	(0.004)	(0.006)	(0.006)	(0.001)	(0.001)	(0.001)
Urban residence	4.017***	3.528***	2.919***	3.998***	3.518***	2.917***
	(0.450)	(0.655)	(0.332)	(0.452)	(0.649)	(0.331)
Constant	5.023***	1.918	3.542***	5.083***	1.989	3.677***
	(0.586)	(1.116)	(0.568)	(0.612)	(1.137)	(0.545)
Caste controls	No	Yes	Yes	No	Yes	Yes
District FE	No	No	Yes	No	No	Yes
N	941	941	941	941	941	941
R squared	0.20	0.30	0.35	0.20	0.30	0.35

Notes: 'Placebo treat' stands for the cohort born in 1960-1965, control group is born in 1954-1959. Dependent variable: N of years of education completed (using levels of education as a proxy). Robust standard errors in parentheses, clustered at the district level. * significant at 10%; ** significant at 5%; *** significant at 1%. The dependent variable is the years of education attained. Caste (and religious affiliation) controls include dummy variables for an individual being Brahmin, High Caste, Sikh, other Backward Caste (OBC) and 'other category' used as a reference group. "Other category" includes members of Dalit caste, Christians, Muslims and Adivasi. Data sources: 2005 Indian Human Development Survey (IHDS) and South Asian Terrorism Portal (SATP) as described in section III.2.

Appendix Table 3 - Health Expenditure

	Health	Health	Health	Health
	(1)	(2)	(3)	(4)
Terrorism	17.05	13.16	-15.33	3.868
	(77.72)	(74.36)	(68.53)	(68.78)
Ratio6_16	34.02	38.39	41.72*	46.41*
	(20.67)	(23.79)	(24.41)	(23.79)
Ratio6_16*Terrorism	-80.06*	-87.69*	-90.25*	-93.26*
	(44.25)	(48.65)	(49.88)	(47.09)
Constant	389.1***	-412.8	-509.5	-486.7
	(109.8)	(535.4)	(583.6)	(938.0)
District fixed effects	X	X	X	X
Year fixed effects	X	X	X	X
Other controls		X	X	X
District-linear trends			X	X
District-quadratic trends				X
Observations	510	510	510	510
Adjusted R-squared	0.315	0.335	0.340	0.337

Notes: Robust standard errors in parentheses clustered at the village level. Terrorism is a dummy that takes a value 1 if there is a major terrorist incident in that district in that year. Ratio6_16 is defined as total females in household between 6-16 years divided by 1+total males in household between 6-16 years. District fixed-effects are dummies for each of the twelve districts. Year fixed effects include dummies for all years post 1981 when terrorism begins. Other controls are annual district income, area under each type of soil (sandy, sandy loam, loam, clay loam, clay), rainfall measured at the nearest weather station, area of plot in hectares and total number of adult members. District-linear and quadratic trends are within district twelve linear and twelve quadratic time trends. Medicines included the cost on medicines used and payment made to physicians and doctors.
*** p<0.01, ** p<0.05, * p<0.1.

Appendix Table 4 - Heterogeneous gender differential effects depending on age-group within school-children

	Health	Health
	(1)	(2)
Terrorism	-25.41	-10.07
	(65.42)	(65.38)
Ratio6_12	33.56	34.07
	(31.26)	(30.15)
Ratio6_12 *Terrorism	-103.3	-120.2
	(74.33)	(75.52)
Ratio13_16	32.17	36.19
	(29.49)	(29.73)
Ratio13_16*Terrorism	2.966	30.26
	(87.26)	(89.29)
Constant	-468.5	-483.8
	(569.9)	(873.7)
District fixed effects	X	X
Year fixed effects	X	X
Other controls	X	X
District-linear trends	X	X
District-quadratic trends		X
Observations	510	510
Adjusted R-squared	0.337	0.335

Notes: Robust standard errors in parentheses clustered at the village level. Terrorism is a dummy that takes a value 1 if there is a major terrorist incident in that district in that year. Ratio6_12 is defined as total females in household between 6-12 years divided by 1+ total males in household between 6-12 years. Ratio13_16 is defined as total females in household between 13 and 16 years divided by 1+total males in household between 13 and 16 years. District fixed-effects are dummies for each of the twelve districts. Year fixed effects include dummies for all years post 1981 when terrorism begins. Other controls are annual district income, area under each type of soil (sandy, sandy loam, loam, clay loam, clay), rainfall measured at the nearest weather station, area of plot in hectares and total number of adult members. District-linear and quadratic trends are within district twelve linear and twelve quadratic time trends. Medicines included the cost on medicines used and payment made to physicians and doctors.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Appendix Table 5 - Family Composition and Health Expenditures

	Only girls	Only boys	Both
	(1)	(2)	(3)
Terrorism	-101.9	-245.4	-83.72
	(106.6)	(268.6)	(140.0)
Total adult members	10.51	14.81	-3.794
	(11.22)	(42.09)	(21.03)
Constant	3141.3**	-718.6	-3156.5
	(1285.0)	(5397.5)	(2357.2)
District fixed effects	X	X	X
Year fixed effects	X	X	X
Other controls	X	X	X
District-linear trends	X	X	X
District-quadratic trends	X	X	X
Observations	112	99	148
Adjusted R-squared	0.768	0.116	0.389

Notes: Robust standard errors in parentheses clustered at the village level. Terrorism is a dummy that takes a value 1 if there is a major terrorist incident in that district in that year. District fixed-effects are dummies for each of the twelve districts. Year fixed effects include dummies for all years post 1981 when terrorism begins. Other controls are annual district income, area under each type of soil (sandy, sandy loam, loam, clay loam, clay), rainfall measured at the nearest weather station, area of plot in hectares and total number of adult members. District-linear and quadratic trends are within district twelve linear and twelve quadratic time trends. Medicines included the cost on medicines used and payment made to physicians and doctors.
*** p<0.01, ** p<0.05, * p<0.1.

Appendix Table 6 - Placebo for other age groups: Health

	Panel A: Below 6				Panel B: Over 16			
	Health	Health	Health	Health	Health	Health	Health	Health
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Terrorism	-23.74	-25.49	-64.24	-52.37	14.88	12.06	0.532	18.33
	(69.46)	(64.93)	(58.19)	(51.67)	(128.8)	(122.5)	(107.3)	(123.5)
Ratiobelow6	36.92	42.95	12.90	11.68				
	(32.45)	(34.38)	(32.65)	(32.90)				
Ratiobelow6 *Terrorism	8.567	-7.725	29.32	42.57				
	(99.07)	(86.13)	(96.98)	(97.48)				
Ratioover16					2.14	18.26	26.82	33.85
					(41.07)	(51.52)	(45.10)	(45.10)
Ratioover16*Terrorism					-42.86	-47.95	-72.00	-72.77
					(139.9)	(134.0)	(126.3)	(131.7)
Constant	407.6***	-408.0	-521.2	-512.8	413.8***	-820.2	-524.7	-480.6
	(108.3)	(535.0)	(591.5)	(933.5)	(125.9)	(543.8)	(587.5)	(927.5)
District fixed effects	X	X	X	X	X	X	X	X
Year fixed effects	X	X	X	X	X	X	X	X
Other controls		X	X	X		X	X	X
District-linear trends			X	X			X	X
District-quadratic trends				X				X
Observations	510	510	510	510	510	510	510	510
Adjusted R-squared	0.31	0.33	0.33	0.33	0.31	0.33	0.33	0.33

Notes: Robust standard errors in parentheses clustered at the village level. Terrorism is a dummy that takes a value 1 if there is a major terrorist incident in that district in that year. Ratiobelow6 is defined as total females in household below 6 years divided by 1+total males in household below 6 years. Ratioover16 is defined as total females in household over 6 years divided by 1+total males in household over 16 years. District fixed-effects are dummies for each of the twelve districts. Year fixed effects include dummies for all years post 1981 when terrorism begins. Other controls are annual district income, area under each type of soil (sandy, sandy loam, loam, clay loam, clay), rainfall measured at the nearest weather station, area of plot in hectares and total number of adult members. District-linear and quadratic trends are within district twelve linear and twelve quadratic time trends. Medicines included the cost on medicines used and payment made to physicians and doctors. *** p<0.01, ** p<0.05, * p<0.1.

Appendix Table 7. - Health Expenditure (with totalboys 6-16, totalgirls 6-16)

	Health	Health	Health	Health
	(1)	(2)	(3)	(4)
Terrorism	-24.32	-30.35	-65.04	-48.13
	(70.93)	(73.71)	(85.05)	(104.0)
Totalgirls6_16	23.17	29.49*	29.26*	32.41*
	(15.02)	(16.33)	(17.10)	(16.60)
Totalboys6_16	-8.960	-3.886	-5.359	-0.297
	(17.16)	(18.14)	(17.84)	(18.63)
Totalgirls6_16 * Terrorism	-70.48**	-76.37*	-77.97*	-78.50**
	(35.55)	(38.57)	(40.77)	(38.20)
Totalboys6_16 * Terrorism	66.72	71.81	74.59	76.19
	(76.60)	(78.32)	(82.51)	(83.95)
Constant	397.6***	-824.9	-467.6	-421.2
	(107.5)	(523.1)	(577.3)	(921.4)
District fixed effects	X	X	X	X
Year fixed effects	X	X	X	X
Other controls		X	X	X
District-linear trends			X	X
District-quadratic trends				X
Observations	510	510	510	510
Adjusted R-squared	0.314	0.336	0.341	0.338

Notes: Robust standard errors in parentheses clustered at the village level. Terrorism is a dummy that takes a value 1 if there is a major terrorist incident in that district in that year. Totalgirls6_16 is defined as total females in household between 6-16 years. Totalboys6_16 is defined as total males in household between 6-16 years. District fixed-effects are dummies for each of the twelve districts. Year fixed effects include dummies for all years post 1981 when terrorism begins. Other controls are annual district income, area under each type of soil (sandy, sandy loam, loam, clay loam, clay), rainfall measured at the nearest weather station, area of plot in hectares and total number of adult members. District-linear and quadratic trends are within district twelve linear and twelve quadratic time trends. Medicines included the cost on medicines used and payment made to physicians and doctors.
*** p<0.01, ** p<0.05, * p<0.1.

Appendix Figure 1

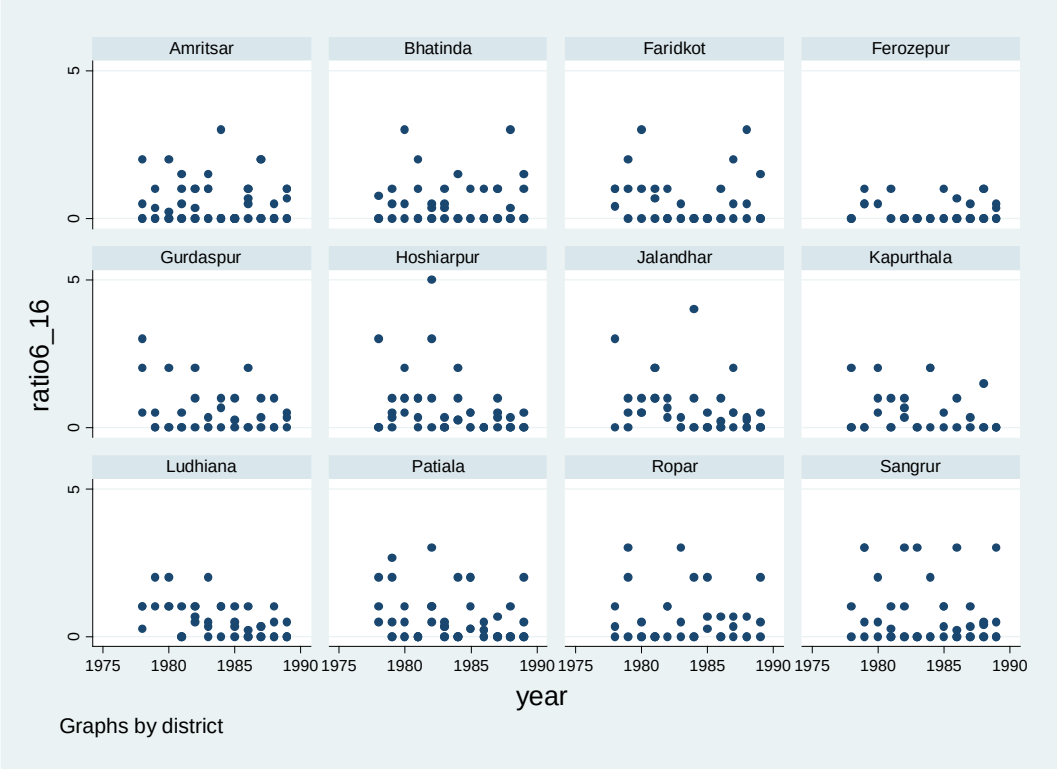


Figure shows how the mean ratio6_16 defined as total females in household between 6-16 years divided by 1+total males in household between 6-16 years varies by year for each district.

Appendix Figure 2

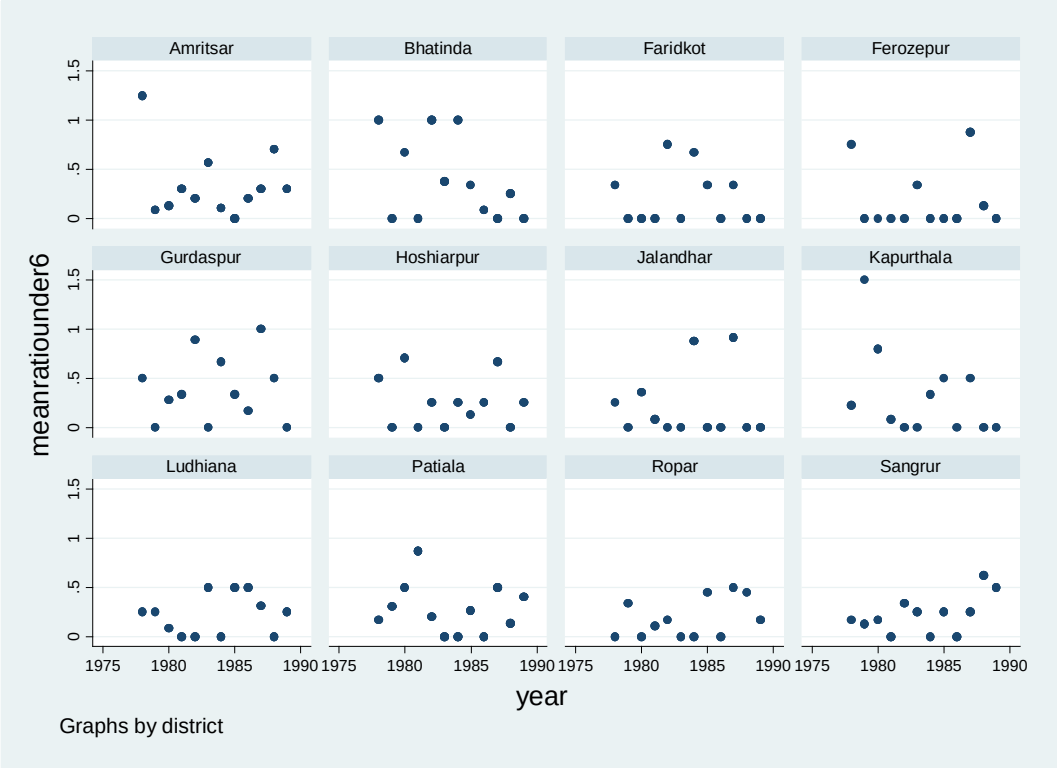


Figure shows how the mean ratio under 6 defined as total females in household between under 6 years divided by 1+total males in household under 6 years varies by year for each district.

Appendix Figure 3: Expenditures on Health [Source: Farm account surveys from Punjab Agricultural Department and terrorism data from South Asia Terrorism Portal]