The Long Shadow of the Kargil War:
The Effect of Early-life Stress on Education

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Abstract The paper examines the long-term impact of the India-Pakistan war of 1999 on the educational attainment and employment of children born to families of soldiers who survived the war. Based on the assumption that military families faced higher levels of psychological stress than civilian families during the war period, the paper uses a difference-in-difference methodology with household fixed effects to show that the education and employment of military children exposed to the war during their formative years suffered significantly. An examination of the consumption expenditure pattern of military and civilian households suggests that the effect was unlikely to be via resource-related channels. The improbability of other direct pathways through which the war could affect these families suggests that the negative effect might have resulted from the psychological stress that the war generated for the military families.

Key words: conflict; mental stress; education; employment

JEL Classifications: D74, I18, I21

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"I thought the war would never end. And perhaps it never did, either. "

- George Grosz (1982).

1 Introduction

In the first week of May 1999, five soldiers of an Indian army patrol team were captured and later tortured to death by Pakistani infiltrators who had illegally entered and occupied strategic locations on the Indian side of the Line of Control (Lambeth (2012); Tellis et al. (2002)).[1] What followed was a high-altitude warfare between the two nuclear states in the Kargil district of Kashmir and elsewhere along the LOC that continued for a little over two months. During what is now referred to as the Kargil War, over 700,000 Indian troops, excluding the reserve forces put on alert, were mobilized to the region.[2]

The infiltration and the subsequent war came as a rude surprise to citizens and governments in both countries (Fair (2009); Siddiqa (2017)).[3] While civilians were outside the direct line of fire, the war was fought in an era of satellite news channels, and battles were broadcast directly to homes in both the countries (Fareed (2019)). Continuous exposure to news of war gave rise to extended periods of anxiety and mental distress. This distress must have been more acute for the families of the soldiers serving in the military (hereon, military families) fighting the battles.[4] Even after the war, these families might have had to deal with the post-traumatic stress that soldiers coming back from war might have suffered from.[5]

The heightened level of stress might have affected the long-term welfare of military families. This might have been especially true for children born to military families (henceforth, military children) for whom the war coincided with their formative years. For example, there are multiple pathways through which this stress during the formative years affects educational attainment later in life. Stress during pregnancy triggers the production of the placental corticotrophin-releasing hormone (CRH) that is associated with reduced gestational age and low birth weight (Hobel and Culhane (2003)). The effect of low birth weight on educational attainment is well documented.[6] Stress can also hamper the body's immune system against infectious diseases (Jemmott and Locke (1984); Herbert and Cohen (1993)). The negative effect of such a decrease in immunity implies that stress might affect children both by worsening their in-utero environment and by

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[1]The Line of Control (LoC) is the military control line between the Indian and Pakistani controlled parts the state of Jammu and Kashmir that serves as the de facto border between the two countries in the region.

[2]See 'The Kargil Conflict' report (GlobalSecurity.org (1999)).

[3]Nawaz Sharif, the Prime Minister of Pakistan at the time, claims that he had no information of this act of subversion by Lieutenant Parvez Musharraf, the Pakistani Chief of Army Staff at the time (Hindu (2007)). Others who have disputed his claims of ignorance have also maintained that the Pakistani military's plan to enter India was a heavily guarded secret (Pubby (2009)).

[4]"Arif [...] was 9, [and] didn't even know the Kargil War was on. All he knew was that his mum stayed tense. His dad, CQMH (company quarter-master havildar, usually in charge of managing the logistics of a company) Amruddin of 22 Grenadiers, had already prepared his wife for the logistics of his possible death." - Ramani (2016)

[5]Talking about the psychological effects of the Kargil War, Lieutenant Colonel (retired) Samir Rawat, a recipient of President's gallantry award for Kargil War, said, "*Life was tortuous for me post Kargil War in 1999*", and expressed a need for well-trained psychologists in the military (TOI (2016)). Also see, Channan (2019) and Raman (2019).

[6]See Currie and Hyson (1999) for a review of the work in economics.

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affecting their health in the early years of their life. Next, stress can also trigger behavioral responses, like increased smoking or drinking by a pregnant mother or other family members in the household, that might affect the children in their in-utero or early-life period. It is also possible that the soldiers who fought the war developed post-traumatic stress disorder that, directly or indirectly, affected the education of their children adversely (Marshall et al. (2005); Sherman et al. (2006); Catani (2010); Cesur et al. (2013); Saile et al. (2013)).

The paper makes within-family comparison of children born to military and civilian families in India around the time of the war (in 1999 and 2000) to examine the long-term effect of the war on the education of children. Based on the plausible assumption that military families might have faced higher levels of stress than civilian families during and after the war, the paper uses a difference-in-difference methodology with household fixed effects to show that the educational attainment of the children born to military families during the period suffered significantly. Even after accounting for educational differences associated with the year of birth, military children born around the time of war were three percent less likely to be literate, two percent less likely to have ever attended school, and four to seven percent less likely to be attending school by the time of the survey. I also find smaller but significant negative effects on the education of military children who were in their early years of life around the time of the war and on the employment of exposed children who were of working age by the time of the survey. Consistent with the existing studies on the effect of preconception and prenatal stress on still births and infant mortality, I find smaller cohort sizes for military children born around the time of the war (Wisborg et al. (2008); Witt et al. (2012); Class et al. (2013)).

Studies examining the effect of insurgencies and conflict within India find larger impacts on education (Parlow (2011); Singh and Shemyakina (2016); Roy and Singh (2016)).[7] The conflicts in African countries have often been more violent and their negative impact on education, as a consequence, larger (Akresh and De Walque (2008); Blattman and Annan (2010); Annan et al. (2011); Verwimp and Van Bavel (2014); Akresh et al. (2017); Alfano and Görlach (2019)). The estimates effect sizes are also smaller compared to the impact of civil wars in Cambodia (Minoiu and Shemyakina (2014)), Guatemala (Chamarbagwala and Morán (2011)), Nepal (Valente (2014)), Peru (Leon (2012)), and Tajikistan (Shemyakina (2011)), of homicides and insurgency ceasefires in Colombia (Gerardino (2014); Namen et al. (2020)), of the genocide in Timor Leste (Justino et al. (2013)), of the Bosnian war (Swee (2015)), and of World War II destruction on Germany and the rest of Europe (Akbulut-Yuksel (2014); Kesternich et al. (2014)). The smaller estimates are not entirely surprising. As I discuss in detail ahead, my identification strategy rules out most direct pathways, like destruction of physical infrastructure and loss in livelihoods, through which violence might affect education. It estimates the differential effect of the war on military and civilian families through indirect

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[7]Parlow (2011) estimates that the insurgency in Kashmir between 1990 and 1996 decreased enrollment in primary schools by almost 13 percent. Singh and Shemyakina (2016) reports that the 1981-1993 Punjab insurgency in India costed girl children close to an year of education. Roy and Singh (2016) finds that the violent conflict in the state of Assam is associated with, on average, 13 percent decrease in female enrollment rate between 2005 and 2014. See also, Kaila et al. (2017), for an analysis of how development programs have helped reduce insurgency-related violence in the Kashmir region of India.

channels, which we expect to be smaller.[8]

The war was brief but bloody. Around 500 Indian soldiers were killed (Fareed and Hashim (2019)). The number of Pakistani casualties has been difficult to determine, with estimates ranging from under 400 to around 3000 soldiers (Party (2001); Samanta (2006); Fareed and Hashim (2019)). But the war was fought entirely along the India-Pakistan border near Kargil, hundreds of kilometers away from population settlements, with no civilian causalities on the Indian side (See Figure 1). Therefore, apart from the mental stress, it did not disrupt the day-to-day life of the citizens not serving in the military. Since I focus on families of soldiers who were alive and serving in 2009-10 and 2011-12, the sample comprises military families for whom the war presented a real threat to the well-being of their soldier family member but, fortunately, did not eventually lead to a disability or demise of the soldier. An examination of the consumption expenditure pattern of military and civilian households suggests that the effect was unlikely to be via resource-related channels. The Right of Children to Free and Compulsory Education Act that made education a fundamental right of every child in India came into force on 1 April 2010. I can rule it out as a pathway by examining the educational outcomes in 2009-10 and before. The improbability of other direct pathways through which the war affected the military families suggests that the negative effect might have resulted from the psychological stress that the war generated for these families. I cannot, however, rule out some pathways like changes in risk preference and time preference of the children and parents exposed to the war.

This paper relates to multiple strands of literature. Several studies have criticized war for its futility (Deane (1975); Rasler and Thompson (1985); Stiglitz (2003); Schneider and Troeger (2006)). A more recent criticism arises from our growing understanding of the long-term consequences of *in-utero* and early-life environment. Studies find that exposure to conflict in early-life can affect health and education in both the short term (Bundervoet et al. (2009); Shemyakina (2011); Mansour and Rees (2012); Minoiu and Shemyakina (2014); Nasir (2016); Nasir et al. (2016); Kountchou et al. (2019)) and the long term (Akresh et al. (2012); Leon (2012); Justino et al. (2013); Akbulut-Yuksel (2014); Kesternich et al. (2014); Bratti et al. (2016); Akbulut-Yuksel (2017); Singhal (2018); Brück et al. (2019); Palmer et al. (2019)), and may also have inter-generational spillovers (Akresh et al. (2017); Phadera (2019)). The findings from this paper add to this growing literature that prompts us to reevaluate the cost of war. Compared to most existing studies of the impact of violence on educational attainment that compare regions or periods with high and low levels of conflict and, therefore, fail to account for the endogeneity of the intensity of conflict, the paper also improves on the identification of the indirect effects of war.[9] The military and civilian children I compare live in the same districts, are born in the same years and are exposed to the intensity of war. The variation in exposure arises from whether a close family member was fighting the war on the border.[10]

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[8]I cannot rule out the presence of aggregate effects for the entire country (Do and Iyer (2012)).

[9]An exception is Tapsoba (2019) that examines the impact of probabilistic risk of violence on child health.

[10]Military service in India is voluntary. Military families, as a result, are likely to be different from civilian families. I account for this possibility by including military family fixed effect, by estimating the effect of exposure to war using within (military and civilian) households difference, and by allowing for different time trends in educational attainment of military and civilian children.

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This paper also attempts to further our understanding of the mechanisms through which wars might have long-term effects. Multiple studies that examine the impact of unexpected tragic events, extreme violence, or natural disasters on later-life well-being have posited psychological stress as a pathway (Glynn et al. (2001); Camacho (2008); Torche (2011); Mansour and Rees (2012); Swee (2015); Akresh et al. (2016); Black et al. (2016); Duncan et al. (2017); Persson and Rossin-Slater (2018); Brück et al. (2019); Michaelsen and Salardi (2020)).[11] But as pointed out by Black et al. (2016), these studies could not distinguish the effects due to mental stress from direct consequences of the threat of physical harm, changes in incomes, destruction of physical and human capital, and access to health and educational infrastructure.[12,13] Since I can rule out alternative pathways like threats of physical harm, destruction of capital, changes in household consumption and access to important infrastructure using contextual and survey information, I conjecture that the psychological stress that the war generates must be one of the pathways through which wars affect later-life outcomes of people who are exposed to it in their formative years.[14] Most of the studies that make use of the time overlap of such extreme events and early-life period assume that the psychological stress experienced during the immediate aftermath of the event fades away after a few years such that newer cohorts born after the event do not experience the stress. But the long-term effect of such events on mental health is precisely what makes the assumption implausible (Bratti et al. (2016); Nasir et al. (2016); Persson and Rossin-Slater (2018); Singhal (2018)). Since I compare children of the same age born in the same districts but to different families, I do not make such an assumption. I find that the war's negative effect continued for children born half a decade after, suggesting that the assumption regarding the dissipation of the effect soon after the event might not always hold.

In its attempt to understand the mechanisms through extreme events in early life can affect later-life welfare, the study is closely related to Black et al. (2016) and Persson and Rossin-Slater (2018). Both studies examine the impact of the death of a family member during pregnancy on birth and later-life outcomes. Black et al. (2016) find a small negative effect on birth outcomes and no significant impact on later-life outcomes and Persson and Rossin-Slater (2018) find that mental health in childhood and adulthood are also affected. The findings of this paper complement their findings but also differs from these studies in a few ways. First, compared to the death of a relative, an extreme and often non-random event, the psychological stress in our context arises from a threat of harm to a family member that does not materialize.[15] As a result, I can rule out any mechanisms like a direct effect on resources and inputs, more convincingly. The death of family member might also be followed by a period of bereavement that might aggravate or alleviate the

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[11]Studies that find long-term psychological effects of violent events provide a basis for it. See, for example, Bratti et al. (2016), Nasir et al. (2016), Persson and Rossin-Slater (2018), and Singhal (2018)

[12]They may also suffer from survival and migration-related bias.

[13]An important exception is Michaelsen and Salardi (2020) that reports that homicides in the vicinity of schools during the week immediately prior to national standardized tests in Mexico negatively affects performance on the test more than long-term violence spread over a full school year. The authors attribute the effect to acute psychological stress among students in the immediate aftermath of local violence.

[14]Since the identification does not rely on location-specific exposure to the war, migration-related biases are not a concern.

[15]I identify the effects by comparing civilian families with families of those soldiers who are alive and serving in 2009-10 and 2011-12.

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mental stress. Such a period is absent in the context I study. Next, it is difficult to rule out the possibility that the deaths could have been preceded by a long-term illness or other changes within the households. In comparison, the event that causes mental stress in the context I study was arguably more exogenous.

The most important difference arises from the paper's focus on a developing country. Developing countries like India differ drastically from Norway (Black et al. (2016)) or Sweden (Persson and Rossin-Slater (2018)) in terms of the extent of recognition, acceptance, treatment, and assistance available for mental stress (Murthy (2014)).[16] As a result, the effects of such stressful events might be more severe and long-term in developing countries. The effects might also transfer across generations more easily. One possible reason why I find an effect on education but Black et al. (2016) do not could be because corrective investments at the right time, in the form better care and assistance to manage mental stress, might have helped limit the transmission of the negative effects in Norway. This is of immense importance from a policy perspective, especially because many of the children who were negatively affected are still in school. A prompt policy response to help these children might help prevent further permanent damage.

The findings also highlight the extent to which soldiers and their families pay a much higher cost of war. No soldier comes out of war unscathed.[17] The results of the paper suggest that nor do their families (Østby (2016)). While consistent with the finding that war-experiences of soldiers have negative effects on the well-being of their families (Jordan et al. (1992); Zatzick et al. (1997); Riggs et al. (1998); Galovski and Lyons (2004); Catani (2010); Lester et al. (2010)), the results suggest that the effect could also be due to the changes in mental health of other family members.

2 Data

I use information from the Employment and Unemployment surveys and the Household Consumer Expenditure survey conducted by the National Sample Survey Organization of India. To examine the impact of the war on education attainment of those exposed, I use the eighth and ninth waves of the Employment and Unemployment Survey of India. The eight wave was conducted in 2009-2010 and the ninth wave was conducted in 2011-12. The surveys covered the whole of the Indian Union except some villages in Nagaland and Andaman and Nicobar Islands that remain inaccessible throughout the year. Among other information, the surveys recorded the employment status, the occupation, and the industry of employment for all households members. It also collected information on literacy and educational attainment of the household members. The children born around the time of the Kargil War must have entered school around 2005-06. Conducted

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[16]In fact, the result from Persson and Rossin-Slater (2018), that the availability of psychiatric help mitigates some of the negative effect, is a testament to this.

[17]There is a large literature that examines the long-term effect of war on veterans. See, for example, Wilson (1980), Sonnenberg and Blank (1985), Elder (1987), Elder Jr et al. (1991), Kramer et al. (1994), Ursano (1996), Marshall et al. (2005), Sherman et al. (2006), Cesur et al. (2013), and Saile et al. (2013) among others.

around four years after the school starting age for the children exposed to the war *in utero*, these surveys will allow us to estimate if there are meaningful differences in the educational attainment of children of civilian and military families exposed to the war.

To identify individuals who were employed in the defense forces, I make use of information on the reported industry of employment. In particular, I identify an individual as employed in the defense forces if the respondent reports that he or she is employed by the government in defense and safety activities . A household is defined to have members working for the defense forces if there is at least one surveyed member of the household that fits that description. If a household has a member that is employed in the defense forces but is not surveyed, the household will be categorized as a household without a defense forces member. This method also excludes households who had a member working for the defense forces during the Kargil War who might have died, discharged, quit, or retired during or after the war. Since the Indian military service is a voluntary service, where interested candidates are interviewed for advertised vacancies. A fixed number of openings are advertised twice every year. There was no change to this procedure during the war period reducing chances of selection bias.

Any such errors in categorizing military and civilian children will, in most cases, bias the estimates towards zero. To see this, let us assume that the war affected the educational attainment of children born to military households during the period negatively. If so, I should find that once I include all relevant controls, like the year of birth, district of birth, whether born to military family, the average educational attainment of children born to military families during the war should be smaller than the average education attainment of children born to civilian families during the war. Consider now that I mis-categorize a child born to an military family as born to a civilian family. Since I have assumed that the effect of the war on exposed military children was negative, this will mean that I will be moving a child with relatively lower educational attainment from the group of military children to the group of civilian children with higher average educational attainment. Including this new child who, by assumption, has lower expected education than those in the civilian category will decrease the average of the group of civilian children, thus decreasing the real differences between exposed military and civilian children. Similarly, if I categorize a civilian child as an military child, under the assumption about the impact, it will increase the average educational attainment of exposed military children, narrowing gap between the two groups and, thereby, biasing the estimates of any such negative effects downwards towards zero.

An exception could be those soldiers who were worst affected by the war continued to serve in the military, while those least affected quit the military after the war and are now civilians. This can generate an upward bias in the estimates. However, it appears unlikely that those least affected by the war will quit the military more often than those worst affected. Moreover, a job in the armed forces is seen as a lucrative and respectable career and, while early retirements are rising, they are not common. For example, for 1.12 million strong Indian Army, the voluntary retirement rates are around 400 per year (INAS (2007); PIB (2019)).

Another somewhat unlikely scenario that might generate a similar upward bias could be if civilian fathers of children born in 1999 and 2000 who would have anyway performed worse at school enrolled disproportionately into military service after the war. This will decrease the mean educational attainment of military children at the time of the survey. However, the scenario appears to be extremely unlikely. While the Indian government has increased its defense budget over the years, it is a part of a trend that has been going on for sixty years now (Figure A1). As Figure A1 shows, there were not sharp increases immediately after the war. In fact, military expenditure as a percentage of GDP decreased in the years immediately after. It is unlikely that it led to a significant increase in the troop size. I confirm this in Figure A2. The troop size has remained relatively constant at 0.21% of the total population of the country since 1995. The growth rate in the size of the troops in has hovered around 0.8%. The occasional spikes, except in 1995, are routine hires to make up for the next cohort to retirees in the year after. The change in the size of the military troops is too small to drive the average effect I find for all military children.

I admit that these figures do not rule out the unlikely possibility entirely. But it is worth considering how probable this kind of selection is. According to the World Bank indicators, the age at first marriage for males in India in 1999 and in 2001 was 25 years (World Bank (2019a)). Out-of-wedlock children are extremely rare (YaleGlobal Online (2017)). Juxtapose that with the upper age limits on male applicants to the Indian military. It is 23 years for the Indian Army, 25 years for the Indian Air Force, and 17 to 25 years for the Indian Navy (The Economic Times (2018); Indian Air Force (2019); Indian Navy (2019)). As a result, most of the soldiers are unmarried when they join the military, let alone having had children. It is, therefore, unlikely that the there were many cases where a civilian had a child around the war, and later was enrolled in the army. Also, it is not entirely clear why the children born to such civilians in 1999 and 2000, if there were any, would systematically perform worse compared to all other children later in their lives. It is difficult for all these conditions to have been met for a significant number of respondents to yield falsely significant differences all by itself.

Another data limitation I face is that I do not have the exact date of birth of the respondent. For this reason, I define *in utero* and early-life exposure to the war period based on the age of the respondent at the time of the survey. I define year of birth as the difference between the year of the interview and age of the respondent at the time of the survey recorded in completed years. Since the war continued from May 1999 to July 1999, I assume that any mother that gave birth in 1999 or 2000 had some length of her gestational period that overlapped with the war period. Here too, any errors in categorization will bias the coefficients downwards towards zero. As a result, the estimated coefficients, at worst, will be lower bounds on the real effect of war on exposed military children. I define the outcome variables of interest based on recorded educational attainment and whether the respondent was attending school at the time of the survey. I will use cruder measures of educational attainment from sixteen waves of Household Consumer Expenditure surveys to supplement the results.

To show that the affects are not because of changes in consumption expenditure, I make use of information on monthly consumption expenditure from seventeen waves of the Household Consumer Expenditure survey. For each wave, I compare the reported monthly *per capita* consumption expenditure for military and civilian households to document whether there were any sharp changes in the consumption expenditure for military household around or after the war.

3   Identification

Even though the war took the entire Indian population by surprise, a simple comparison of those born during or in the months following the war with those born before the war will yield biased estimates of the impact of the war. A lot changed in the years after the war. For example, the Indian government increased its defense budget (Sreedhar (2000)). This could have come at the expense of other policies, some of which might have affected educational attainment of children. Improvements in the Indo-US relations and stock market upsurge might have had a positive effect on those born after the war. Trends in expenditure on education will also affect the educational attainment of the groups differently. To untangle the effect of the war from these confounding factors, I leverage the difference in the level of psychological stress that the war generates for different households.

The war was fought at high altitudes in the Kargil district and at other places along the line of control. The civilian population of the country was free from the danger of physical harm. But the psychological stress was difficult to avoid with citizens in both countries worried about the deterioration of relationships with a neighbor they had fought two wars with already and about the safety of their soldiers. The situation might have been worsened by the fact that 24×7 satellite news channels broadcasted war-related news directly to households throughout the period (Fareed (2019)). No one would have been more stressed by the circumstances than those who had a family member fighting the war faced a higher level of stress.[18] It is possible that heightened level of stress in military household around the time had a permanent impact on children *in utero* or in early years of their lives that affected their educational attainment later on. Against this background, I estimate the following relationship:

$$Y_{iht} = \alpha + \beta_1 Bornaroundwar_t + \beta_2 Militaryfamily_h + \beta_3 Bornaroundwar_t \times Militaryfamily_h + \tau_t + \nu_h + \varepsilon_{iht} \quad (1)$$

where Y_{iht} is the education attainment of child i born in household h in year t measured at the time of the survey. Our preferred indicator of educational attainment of a child is the level of education coded '0' if the

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[18]While not all those who served in the security forces necessarily fought in the war, every member of the security forces was kept on standby to be deployed if the need arose.

respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. In some specifications, I also use indicators of whether a child is literate, has some formal education, or has completed primary school as our dependent variable.

$Bornaroundwar_t$ is an indicator variable that identifies cohorts born around the time of the war. It takes value '1' for years 1999 and 2000, '0' for others. So, in my main specification, I compare children born in 1999 and 2000 with those born before or after this period in military and civilian households. But as mentioned earlier, children born after 2000 might also be affected by the war if, for example, the soldiers who served in the war developed post traumatic stress disorder that affected their behavior towards family members. To capture such possibilities, in one of the specifications, I replace $Exposed_t$ with the year of birth. This allows us to estimate a separate effect of the war for each birth year cohort. $Militaryfamily_h$ takes value '1' if individuals i belongs to an military family, '0' otherwise. This captures time-invariant differences between military and civilian households, including factor like self-selection into military services. Differences in educational attainment due to age are captured in the year of birth fixed effect τ_t. Any pre-existing differences between the education attainment of children born in military and civilian families that were not due to the exposure to the war will be captured in β_2. The coefficient of interest β_3 captures any differences in educational attainment of children born in military and civilian family that was due to being exposed to the war. Household fixed effect ν_h controls for all household-level variables that affect educational attainment of children common to all children in the household. In some specifications, I replace the household fixed effect with a district-level fixed effect. I cluster the standard errors at the level of the district in all the specifications. Table 2 summarizes the variables relevant to the analysis.

The identification controls for the time-invariant differences between civilian and military families and for the average differences across all children born in different years. Therefore, any effect that the war had on both civilian and military children is accounted for. The estimate capture the differential effect exposure to the war had on military children. The identification relies on the assumption that once differences across birth cohorts and type of families are controlled for, the exposure of military families to the higher levels of stress was exogenous. But was it really the case? Contextual information would suggest so.

After Pakistan's defeat in the 1971 war for Bangladesh's liberation, the two nations had signed the Simla Agreement wherein they promised not to engage in armed conflict with respect to the border. A period of relative peace followed, with only a few skirmishes at the border, none involving a major involvement of the military forces. Time had allayed the fear of a third war. However, the separatist activities in Kashmir throughout the 1990s and the nuclear tests by both countries in 1998 had led to an escalation in the tension between the two countries. The Lahore declaration, signed by both countries in February 1999, was considered a successful attempt to defuse the situation. That was until the infiltration leading to the Kargil War.

While it is impossible to say how many believed that the truce would last and how many feared a looming war, it will be reasonable to conjecture that much of the population in both countries did not imagine a war of this scale until it happened (The Economic Times (2019)). To the extent that such a risk always existed, there would always have been a negative effect of stress that it generated for the military families. The estimates, then, capture the effect of an increase in the levels of stress when the suspicion was realized.

It is, of course, entirely possible and perhaps true that families from which people join the military are different from families from which people do not join the military. If so, there could be a concern about selection into treatment. For example, only relatively risk-loving families might allow a family member to join the military. The family's risk preference might also affect educational attainment of the children directly. If such preferences are stable across time, I account for these differences including family fixed effects. But there is still a possibility that their preference drive different actions at different points in time. For example, it is possible that the risk-loving military families make even riskier investments in their later-born children than their first-born children. Although a very special case, I can account for this by allowing a different time trend for the civilian and military families. As pointed out by Kahn-Lang and Lang (2020), this will also serve as a robustness check for our empirical design and findings. I present these checks in Appendix Table A1.

4 Results

I begin by documenting the differences in the educational attainment of military and civilian children over the years. In Figure 2, I report the unconditional trends in the averages of different levels of educational attainment for military and civilian children. As per the sub-figures, military children had better educational attainment than civilian children almost throughout the period. This is hardly surprising since military families, on an average, earn a higher salary than many civilian families in the country.[19] This implies that these families might have adequate resources to pay for the education of their children and that the children do not have to drop out of school to supplement the household income. The government also provides subsidized health care for the military families. Such facilities may also contribute to the higher educational attainment of military children.

Next, the trends in educational attainment of military and civilian children are roughly parallel to each other before the Kargil War. This suggests that the group of civilian children might be a reasonable counterfactual for studying the impact of the war on military children. Under this assumption, the difference between the proportion of military and civilian children between ages six and twenty who were literate, had some formal education, or had completed primary school by the time of the survey appears to have declined in the period after the war. The difference in the level of education attained, in sub-figure (2d), does not

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[19]Besides, their incomes do not fluctuate like the incomes of those in agriculture and self-employed.

appear to have decreased much. However, this comparison of conditional means does not account for differences that might arise due to omitted observable and unobservable factors. For example, it is possible that military and civilian families sorted into different districts that had different rates of growth in educational infrastructure. To account for such factors, I turn to the difference-in-difference analysis explained in section 3.

For the difference-in-difference analysis, I use the Employment and Unemployment surveys of 2009-10 and 2011-12. These surveys contain more detailed information on education like whether a child was attending school at the time of the survey. These surveys also allow us to examine any effect that the war had on employment of these children. The results are presented in Table 3. Children born to military families were significantly less likely to be literate, to have ever attended school, to be attending school at the time of the survey (columns (1)-(6)). Using information from 2009-10 and 2011-12 rounds of the survey makes little difference. While the impact on primary school completion is insignificant, the coefficients are in the right direction (columns (7)-(8)). According to columns (9) and (10), military children exposed to the war in their early life were almost one level behind civilian children of the same cohorts suggesting that the impact of the war on their level of education was considerable.

Even though the results in Table 3 account for differences across regions and between military and civilian families, it is possible that there were differences between families, military and civilian, that gave birth during this period. While the unexpected nature of the war makes it unlikely that families selectively timed their fertility, I account for this possibility by repeating the difference-in-difference analysis with household fixed effects. This allows us to control for any time-invariant differences that existed between household that might have affected the educational attainment of children. The results are presented in Table 4. Controlling for household-level time invariant differences does not make a considerable difference and exposure to the war in early life is still associated with lower educational attainment for the military children. But it leads to a decrease in the magnitude of the association. One explanation for this difference could be that even military children who were born after the war and not exposed to war *in utero* were also affected negatively by the war. To explore this possibility, I estimate the heterogeneity in the war's impact by year of birth.

As discussed above, the estimated effect sizes are not directly comparable to those from previous studies examining the impact of violence on educational outcome. While previous estimate the total effect of violence, including through direct pathways like destruction of physical and human capital, I identify the differential effect of the war on military and civilian families through indirect channels. The negative impact of insurgencies, civil wars, and other forms of violent conflict on enrollment and attendance in developing countries has often been estimated to fall in the 10 to 20 percentage points range.[20] The estimated differential in the effect of the Kargil War between military and civilian households in India is around a fifth of it. Since our identification strategy allows us to rule out multiple direct pathways through which war might have affected educational attainment in other settings, the smaller magnitude are not surprising.

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[20]See Akresh and De Walque (2008), Blattman and Annan (2010), Chamarbagwala and Morán (2011), Shemyakina (2011), Leon (2012), Justino et al. (2013), Verwimp and Van Bavel (2014), Singh and Shemyakina (2016), and Akresh et al. (2017), among others.

I present the difference in education of military and civilian children by year of birth in sub-figure 3a. The sub-figure plots an estimated coefficient similar to the one reported in Table 3 except now I replace the indicator denoting birth around war by year of birth indicators. The outline present some important trends. Consistent with Figure 2, historically, military children had better educational attainment than civilian children. But for those born after 1990, 10 years or younger at the time of the war, this difference was significantly smaller. In fact, it had completely vanished for those born in 1999 or later. It is difficult of think of any development around the time that might have affected the educational attainment of military children differently. The figure suggests that even though the negative effect of the war most severe for children *in utero* or in the first year of their lives, it also affected children who had already started school. The negative effect of the war seems to have persisted for even those born after 2000. However, it is difficult to make out meaningful differences between the two groups for those born after 2006 as they were too young to have started school by the time of the survey.

The persistence of the negative effect, if it exists, would not be surprising. If the effect that the war had on military families was through mental stress, there is no guarantee that the psychological damage caused might be temporary. It is also possible that the transmission of the negative effect is through a negative role-model effect where the older siblings who suffered due to the war serve as bad examples for those born later. But it is difficult to claim anything with certainty. In Table A5 I check the robustness of the results to excluding those born after the war (2001 or later). The magnitude of the effect of the war is much larger across specifications and survey round when I use this sub-sample. This suggests that those who were exposed to the war *in utero* were worse hit than those born later.

Since there was a negative effect on education of the exposed children, it is likely that their employment later in life also suffered. I explore any impacts of the war on employment by year of birth in Figure 4. The Child and Adolescent Labour (Prohibition and Regulation) Act of 1986 prohibits employment of a child under 14 in any employment including as a domestic help except helping own family in non-hazardous occupations. As a result, those born in 1998 or after were unlikely to be employed at the time of the 2011-12 survey.[21] But as discussed, the stress at the time of the war, the post-traumatic stress that the soldiers might have come back with, and the related behavioral changes could have affected children who were of an impressionable age at the time of the war. As the figure suggests, among those born between 1991 to 1997, some of whom are old enough to work legally by the time of the survey in 2011-12, the employment of military children appears to have suffered. Seen in isolation, the results might suggest the possibility of these children staying in school for education for longer. However, as Figure 3 suggest, the war had a negative effect on their education as well. Taken together, they suggest that the war affected the employment of military children negatively.

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[21]Even if some of them were working, households might have been unwilling to report it fearing legal repercussions.

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Next, in view of the gender bias in employment in India where it is presumed that women will have lower levels of education, the reduction in education due to the war is expected to have a lower effect on the employment of women.[22] To test this, I decompose the cohort-wise effect of the war on employment presented in Figure 4 by gender. The corresponding figures are included as Figure A4. Consistent with the hypothesis, the war had no negative effect on the employment of the females. The overall effect presented in Figure 4 is driven by the male military children.

The psychological effect of stress around pregnancy may manifest in other ways too. For example, studies find that preconception and prenatal stress are associated with an increased likelihood of stillbirths and infant mortality (Wisborg et al. (2008); Witt et al. (2012); Class et al. (2013)). Unfortunately, the data do contain the information to allow the examination of the health effects directly. Instead, I examine the effect of the war on the cohort sizes of military and civilian children born in different years to indirectly detect any effects on the likelihood of stillbirths, infant and child mortality. Table A3 reports the results. Consistent with the existing studies, I find smaller cohort sizes for military children born around the time of the war. This might suggest higher rates of stillbirths, infant or child mortality among military children due to the preconception and prenatal stress. But it is prudent to be conservative in our interpretation of the evidence. It is not entirely clear whether the reduction in the cohort size is due to increased number of stillbirths, infant and child (or even maternal) mortality or is it a mechanical negative effect originating from, the reduced time military personnel spent with their families around the time of the war.

5   Mechanism

As discussed earlier, multiple studies have found a negative effect of exposure to conflict early in life on later-life well-being. But with the exception of Michaelsen and Salardi (2020) that attributes the negative effect of homicides during the week immediately prior to national standardized tests on the performance on the test in Mexico to acute psychological stress, these studies have not been able to distinguish the effects due to mental stress from direct consequences due to threat of physical harm, changes in incomes, destruction of physical and human capital, and access to health and educational infrastructure. The setting I use has a few advantages in this regard.

First, the war was fought on the border between India and Pakistan and did not spill out into civilian areas.[23] As a result, there was no threat of direct physical harm, destruction of physical infrastructure, or obstruction of access to health and education facilities. Second, I identify the effects of the war by comparing civilian families with families of soldiers who are alive and serving in 2009-10 and 2011-12. Therefore, I can rule out changes due to the soldier unable to work due to a disability suffered during the war. Third,

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[22]In levels, however, women employment may be lower than men even for those cohorts affected by the war in their formative years.
[23]See Figure 1.

since military families, in most scenarios, access the same public infrastructure as other civilian families, any effect on the public infrastructure would have affected both groups of families. Since I rely on differences across children born in the same year in the same location but in different families, I can rule out these mechanisms. I can also verify the absence of such mechanisms more directly by examining any changes in the consumption expenditure of military and civilian families over the years.

5.1   Consumption expenditure

Figure 5 reports the monthly *per capita* consumption expenditure of military and civilian families in different years. The military families have historically had a higher monthly *per capita* expenditure. As mentioned before, military families, on an average, earn a higher salary with than many civilian families in the country. The government also provides subsidized health care for the military families. Such facilities may also contribute to the higher monthly *per capita* expenditure for military families. But there is no sharp change in the trend in monthly *per capita* consumption expenditure around the time of the war or when the exposed children start school that is different across military and civilian families.

In Figures 6 and 7, I break down the monthly household expenditure by different consumption items to examine any sharp changes in composition of the commodities consumed. I find no such sharp changes in the consumption expenditure by military households on specific items when compared to the consumption expenditure of the civilian households, especially around the war. But a different concern emerges when I use itemized consumption expenditure from the surveys. In 1999-2000, the National Sample Survey Organization changed how it collected information on expenditure on food items. In particular, the questionnaire used a seven-day recall period for expenditure on food items for the first time. Multiple studies have found that it drastically affected the response - the estimates of expenditure on different food items were significantly larger under the seven-day recall period questionnaire than under the 30-day recall period questionnaire (Deaton and Dreze (2002); Deaton (2003); Deaton and Kozel (2005); Tarozzi (2007); Mukherjee and Chaudhury (2019)). While this change did not affect the aggregate expenditure figures drastically, it meant that there was a significant difference in estimates of expenditure for individuals item. Since the 1999-2000 round of the survey was the first survey after the war, it is difficult to distinguish the effect of the change in data collection methodology from the effect of the war on consumption expenditure on different items.

However, there are several reasons why the change does not seem to be the effect of the war. First, note that I observe large increases in expenditure only for food items for which the survey methodology changed (Figure 6). There was no corresponding increase in the expenditure on education and health expenditure (Figure 7). Next, note that the expenditure on food items increased. If the war had affected household's access to markets and commodities, I should have found a decrease in consumption. An increase in consumption is unlikely to have a negative effect on the educational attainment and labor market outcomes of

children in India. Moreover, note that the magnitude of increase appears to have been similar for civilian and military families. Since I seek to explain the differential change in education over time for military and civilian children, a similar increase in consumption expenditure is unlikely to be the explanation.

I also find an increase in expenditure on tobacco and alcohol. Increased consumption of these items, be it by the mother or other family members, especially during the *in utero* period, can have an effect of later-life education. While an increased consumption of these commodities could itself be in response to the stress, to understand the pathways through which stress affected later-life outcome of children, it is important that I distinguish between the direct effect of stress from the effect that it might have via triggering a behavior change. To separate out the effect of the war from the change in reported expenditure resulting from a change in survey methodology, I examine the extent to which the percentage change in consumption expenditure on different items between the 1998 and 1999-2000 waves of the survey differed from each other. Since the survey does not interview the same households across years, I create pseudo-panel data set by calculating the district-level average monthly household expenditure on these items for military and civilian households. I report the results in Figure A3. The coefficient plots compare the difference in the percentage change in consumption expenditure on each of the listed items between military and civilians families. None of the percentage changes in expenditures are statistically different across military and civilian families. Moreover, the changes in consumption expenditure on different items are not significantly different from each other suggesting that it is the jumps in consumption expenditure that I see for tobacco and intoxicants are also due to the change in survey methodology and do not reflect real changes in consumption quantities of these items.

5.2 Human resource

Another suggestive piece of evidence comes from looking at the heterogeneity in the impact of the war on the children by the number of adult male household members in the household at the time of the war. If there was a direct effect of war on access to resources, it would have varied across families with different number of adult male household members. For families where the only adult male member was the soldier, any resource-related pathway would have had a larger impact compared to a household where there were multiple adult members. Additional male members in the household might have provided additional income to the household. With additional adult male to rely on, the access of women, children, and the elderly members of the household to markets, health, and education facility might also have been higher. However, there is no reason why the stress due to the threat to the life of one of the household members should be smaller for families with a higher number of adult male members.

I define a male member of the household between ages 30 to 60 at the time of the survey, 18-48 at the time of the war, as an adult male household member. Changing the definition of adult males within reasonable boundaries does not change the results. I present the results in Table A2. There is little difference in the effect of the exposure to the war by number of adult males in the household. If anything, the effect on

households with multiple males, when I use the household fixed effect specification in column (4), appears to be larger.[24] The results from the table suggest that earnings or access-related variables are unlikely to be possible pathways.

5.3   Intra-household resource allocation and gender differences

If settings where violence affects educational attainment through direct pathways, like destruction of physical infrastructure, loss in livelihoods, and possibility of direct physical harm, we often observe a gender differential in the impact. If violence negatively affects economic resources of the household, households often respond by changing the allocation of educational resources across children. A bias in the allocation of resources towards boys is quite common in Asia (Chenery et al. (1988); Behrman (1997); Rose (1999); Maccini and Yang (2009); Banerjee and Duflo (2011)). When the effect of violence on education operates through reducing household resources, this bias gets accentuated. Households shift resources from girl children to boys, and, as a result, the negative effect of violence of education is larger for girls (Singh and Shemyakina (2016); Roy and Singh (2016)).

The threat of direct physical harm could also differ by gender. In settings where the fear of being abducted and raped are higher for women, the negative effect is larger for women (Parlow (2011); Shemyakina (2011); Singh and Shemyakina (2016); Roy and Singh (2016)). In comparison, if the threat of direct physical harm disfavors men, like the threat of abduction for indoctrination in Nepal (Valente (2014)), for recruitment as soldiers in Uganda (Blattman and Annan (2010)) and Croatia (Kecmanovic (2013)), or the threat of homicide in Colombia (Gerardino (2014)), the education of male children suffers more.

In Table A4, I present the gender differential in the war's impact. As is clear from the table, the effect of war on educational achievement of exposed children does not differ by gender. The lack of gender differential, especially in the Indian context, further suggests that the effects are unlikely to have operated through direct pathways like reduction in resources or threat of physical harm. But what if parents respondent to child endowment and invest more in children with better health and cognition? And what if, given the gender bias against girls, this reinforcing behavior is even starker when it is a girl child who is exposed to the mental stress *in utero*? That is definitely a possibility, but it will mean a higher negative effect for females. One probable explanation why I do not find this difference could be because the children exposed *in utero* are still quite young at the time of the survey. Many of the older children, for who I find the employment effects, were already enrolled and progressing through school, leaving a smaller margin for reinforcing behavior. So, while I cannot rule out any gender differences in the war's impact on education, they appear to have been insignificant by the time of the survey.

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[24]The effect is not significantly different from the one estimated in column (3).

5.4 Right to education

I can also rule out the possibility that the affect was driven by the 2009 Right of Children to Free and Compulsory Education Act. From April 1, 2010, education became a fundamental right of every 6 to 14-years old child in India. Since military families, on average, were richer than civilians families, it is possible that the act allowed civilian children to catch up to military children in terms of education. But since the act came into force in 2010, the educational outcomes measured for children before 2010 should not be affected. However, as is evident from Figure 2, the convergence in some of the educational outcomes had started converging well before 2010. Also, as is evident from Tables 3 and 4, the negative effect of the war on the education of military children born around war was significant even in 2009-2010. in fact, the impact of the war by the 2009-2010 was larger than by the 2011-12 wave. Moreover, it does not explain the negative impact of being born in military families around 1991-97 on the probability of working reported in Figure 4. While the children born during 1991-95 were exposed to the war in their early years, they were not exposed to the Right to Education Act.

5.5 Psychological stress

Since mechanisms related to threat of direct harm, destruction, fertility or income look implausible in this context, it is likely that the effect of the war was through a psychological channel. Members of military families might have had to face heightened level of psychological stress around the time of the war. Studies have shown that elevated levels of maternal stress during the *in utero* period negatively affect outcomes at birth and cognitive, behavioral, and motor development of children (Glynn et al. (2001); Camacho (2008); Torche (2011); Mansour and Rees (2012); Aizer et al. (2016)). Even short-lived increases in psychological stress on the day of a major sporting event that falls in the pregnancy period can affect birth weight significantly (Duncan et al. (2017)). It is, perhaps, not surprising that I find the strongest effect of the war for those born in 1999 and 2000 for whom the *in utero* period might have overlapped with the war period. But even for military families where no one was pregnant around the war, the stress might have had negative effects. It is likely that the stressful atmosphere might have affected the development of young children and their performance in school. Additionally, there is no reason to believe that families quickly recovered from the psychological damage that the war might have done. Any permanent damage that the elevated level of psychological stress might have done might have had a continued negative effect on the family members exposed to the war and even those born after the war.

The psychological stress of the war might have also affected the military families more directly if it led to soldiers who fought in the war developing post-traumatic stress disorders (PTSD). A large literature documents increased prevalence of PTSD in war veterans and the negative impact it has on the well-being of the families of the veterans.[25] Similarly, it is possible that soldiers who developed PTSD became more

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[25]See, for example, Elder (1987), Elder Jr et al. (1991), Jordan et al. (1992), Kramer et al. (1994), Ursano (1996), Zatzick et al.

verbally or physically aggressive with their family members, and this aggression had a negative effect on the children (Marshall et al. (2005); Sherman et al. (2006); Cesur et al. (2013); Saile et al. (2013); Østby (2016)). Unfortunately, I cannot distinguish whether the negative effects were due to the psychological effect of the war on the soldiers themselves that spill onto the rest of the family or the elevated levels of stress it caused for the family. Future studies should aim to disentangle these possible mechanisms. Regardless, even with these potential alternative mechanisms, it appears that elevated level of stress might have been an important underlying cause.

5.6   Other possibilities

Unfortunately, it is impossible to rule out all alternative pathway. For example, exposure to the war can affect the risk or time preference of the exposed children directly or through their impact on the risk and time preference of their household members, which can then impact their educational attainment (Brown et al. (2019)). Similarly, it is possible that the war might have been followed by longer-term military deployment that meant a higher level of parental absence and worse academic achievement for the child (Lyle (2006)). Also, if injuries sustained during the war was short-term, leading to a period of temporary discharge from service, it might reduce parental absence. This, unless the discharged soldier's behavioral changes affect the family adversely, should have effects in the opposite direction of what I observe. Future studies should strive to examine these potential pathways.

6   Robustness

The most important assumption underlying the difference-in-differences (DiD) estimation is the parallel trends assumption. For the control to be an appropriate counterfactual for the treated group, the trends in the variables in the treated group, in the treatment's absence, must have been parallel to the corresponding trends in the control group. Unfortunately, the assumption cannot be tested. But the examination of the pre-trends in the outcomes of interest before the treatment serves as a useful check. As discussed, we present these trends in Figure 2. The trends in the educational attainment of military and civilian children appear to be parallel.

However, as Kahn-Lang and Lang (2020) points out, this alone is not enough. The authors offer suggest additional checks to test further the validity of the DiD design. Their first suggestion is to address the reason why an initial difference between the exposed and the control exists in levels and why that difference would not impact the trends. The initial differences between civilian and military children, as discussed, exist because army families usually enjoy a higher, minimum-risk income. Beyond the fact that one of their family

(1997), Riggs et al. (1998), Galovski and Lyons (2004), Catani (2010), Lester et al. (2010), and Cesur et al. (2013).

member serves in the military, and hence the higher income and the comforts it affords, the military families are no different that civilian families. Like civilian families, they live in districts all across India, avail the same public amenities, send their children to the same schools, watch the same news and breathe the same air. Besides, there were no major developments specifically around the time of the war that affected military families differently, except, of course, the stress the war generated for them. As pointed out, the war itself was totally unexpected. It is, therefore, likely that the trends in the education of the civilian and military children would have continued parallel had it not been for the war.

It is perhaps true that military families differ from civilian families in other aspects, like risk preferences. As pointed out in Section 3, household fixed effects accounts for the time-invariant difference. But one cannot entirely rule out the possibility of differential trends for the two groups. Kahn-Lang and Lang (2020) suggests that including a group-specific trend alleviates some concerns. I present the results after including a different time trend for the civilian and military families in Appendix Table A1.

Pointed out by Kahn-Lang and Lang (2020), the interpretation of the coefficients no longer remains the same. I indicate this in Figure . The estimated coefficient is now the difference between the post-exposure average and the alternative counterfactual trend for the exposed group (in red). Compared to the conventional counterfactual trend (dashed green line), this alternative counterfactual trend puts a higher weight on exposed group observations. As a result, it is expected to yield smaller treatment effect. But the difference between military and civilian children born around the war is still statistically significant.

Next, I examine the possibility that the results might be driven by direct harm to the respondents. The Kargil War was fought in the Kargil district of the state of J&K. If there would have been a direct threat of harm to the civilians from the war, it would have been the highest in this state. In Table A6, I repeat the analysis leaving out observations from states close to the border where the war was fought. Columns (1) and (2) present the results from the full sample using district and household effects, respectively. In columns (3) and (4), I exclude observations from the state of Jammu and Kashmir (J&K). The results remain virtually unchanged. In columns (5) and (6), I exclude observations from all four states of India that share a border with Pakistan. These are J&K, Punjab, Rajasthan, and Gujarat. Exclusion of these states does not make any difference to the results.

Since I cannot identify families soldiers who died during the Kargil War, I will be categorizing any such households in the data set as civilian households. If the death of the family member was a negative shock for these households, grouping such adversely affected military families with civilian families will reduce differences in the mean of the dependent variables for the two groups and bias the coefficients of the impact of the war on military families towards zero. Families of troops killed during the war received monetary compensation and other support from the government. Though unlikely, if this monetary compensation had a positive effect on the educational attainment of the children that was larger than the negative effect of losing

a family member, that would bias the results in the wrong direction. To rule out such a possibility, I repeat the analysis this time leaving out families that had any widows in the household. Since many unmarried soldiers also lost their lives during the war, the process will not eliminate all cases of such mis-classification. Nonetheless, if the estimates of the effect of the war change significantly once I exclude these households, one might be concerned about the reliability of the estimates. The results in Table A7 show that it does not seem to be a concern.

There could be a potential concern about the choices I made regarding the data to use. For example, the pre-trends examination in Figure 2 are based on data from all available waves of the Household Consumer Expenditure survey. The difference-in-difference analysis, however, uses data from the Employment and Unemployment surveys. Why not use the Household Consumer Expenditure survey for the difference-in-difference analysis or the Employment and Unemployment surveys for the pre-trends examination? There are multiple reasons.

The Household Consumer Expenditure survey does not contain information on birth year. While it does contain information on age, the variable is measured with substantial error. By grouping all people in the 6-30 age group and conducting the pre-trends examination by wave, I reduce the effect of this error on the trends. The DiD depends crucially on the correct birth year information. However, Table reports the results from a DiD analysis that uses the Household Consumer Expenditure survey. As is clear, the results remain qualitatively similar. Another reason is that the Household Consumer Expenditure survey does not contain information on whether a child was attending school at the time of the survey, an important outcome since the most of the exposed children were of a school going age.

The reason why I do not use the Employment and Unemployment survey for the trends is because if a family has someone serving in the military at the time of the survey, it does not imply the family always had the member serving in the military. Using the wave-specific information on the occupation of the family members reduces the mis-categorization of civilian families into military families and *vice versa*. The median age of the soldier in the sample is 31. The upper age limits on male applicants to the Indian Army, Air Force, and Navy are 23, 25, and 17 to 25 years, respectively (The Economic Times (2018); Indian Air Force (2019); Indian Navy (2019)).That means most soldiers are unmarried when they join the military, and they have children after starting their military career. Since I use only the children of the military personnel for the DiD analysis, I can be reasonably sure that they were a part of a military family since birth. Therefore, the threat of mis-categorization is not severe. But it is a more serious concern when trying to examine pre-trends as far back as possible using survey data from 2009-10 or 2011-12.

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7 Conclusion

There is a growing consensus among researchers across disciplines on the importance of mental well-being. But only recently have we come to understand the long-lasting impacts of even mild and short-lived elevations in mental stress. Wars are, in no way, a mild stressor. I document the long-lasting impact of the Kargil War fought between India and Pakistan on the later-life educational and labor market outcomes of the children born to military families exposed to the war in their formative years. Worse still, as visible from the continued worse performance of the children born to military families even half a decade later, I suspect that the damage that the war did continues to affect military families.

Evidence suggests that this effect is unlikely to be due to direct threat of physical harm and destruction of property or a change in income or access. There are also no discernible changes in fertility behavior that might explain the negative effects. The observation that children born years after the war to military families continue to suffer suggests that the effect might directly result from the elevated level of mental stress that the war generated for the military families. If so, since these children exposed to the war are still relatively young, it might be possible to help them with appropriate assistance.

I cannot distinguish between the different ways in which the psychological stress of the war could have affected the educational and labor market outcome of the children. It is possible that the war had a direct effect on the psychological well-being of the child or that it affected the child indirectly by increasing the level of stress for the mother or other family members. The effect could also have been because of the soldier returning home from the war with post-traumatic stress that affected the entire family negatively. Understanding the mechanism through which the psychological stress operated is key to designing effective solutions to alleviate the damage done by such events and further research should seek to comprehend it.

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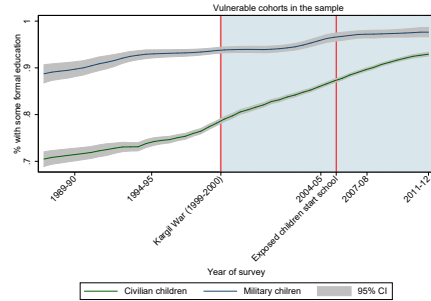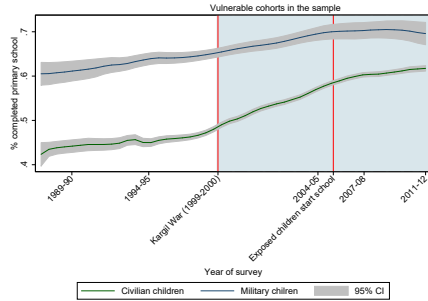
Figure 1: Kargil and the Line of Control

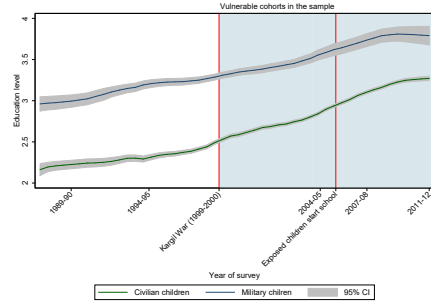**Figure 2:** Educational attainment across different survey years
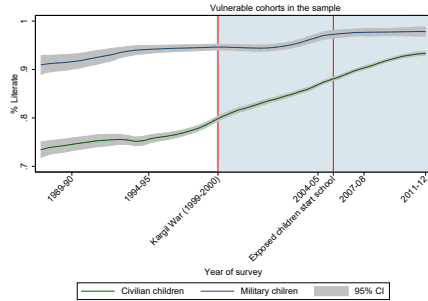
(a) Literacy


(b) Some formal education

(c) Completed primary school

(d) Level of education

Note: The figures use information from 21 out of the 23 rounds of the Household Consumption Survey listed in Table 1. The 38th (1983) and the 72nd (2014-15) rounds did not collect information on respondent's education level. Each tick on the x-axis denotes a survey round with the label indicating the year of the survey. The y-axes measure the percentage of children in the relevant age group that (a) are literate (b) have some formal education (c) have completed primary school. For (d), it measures education level attained. Level of education takes value '0' if the respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. The area shaded grey denotes survey rounds that have respondents who were exposed to the war *in utero* or in early childhood.
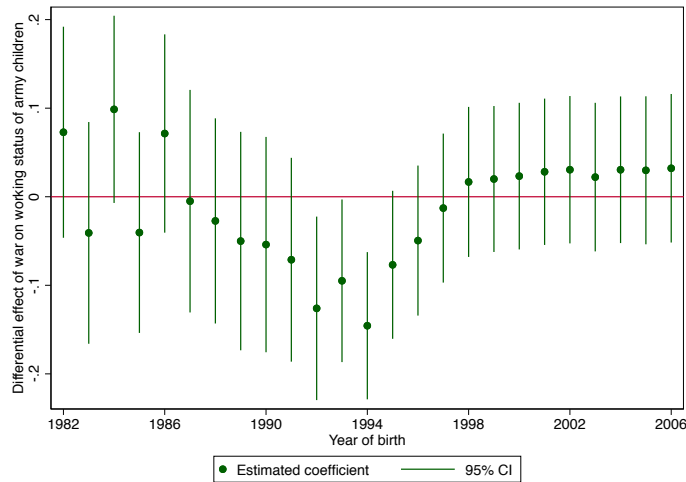
Figure 3: The Kargil War and differences in levels of education
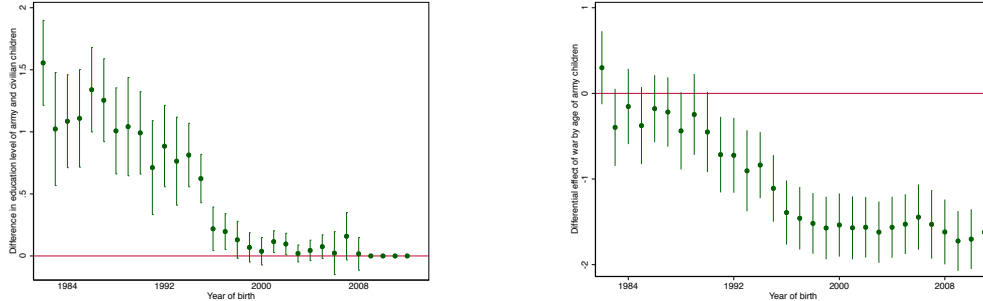
(a) Differences in the level of education of military and civilian children by year of birth

**(b)** Impact of the war on the level of education of military children by year of birth

Note: The sub-figures use information from the 2011-12 Employment Unemployment survey. Sub-figure (a) reports the unconditional difference between the average level of education of military and civilian children by year of birth. Sub-figure (b) plots the impact of being born in a military family by the year of birth on the level of education. The specification controls for year of birth, district of residence, and military family fixed effects, with standard errors clustered at the district level. Level of education takes value '0' if the respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. Whiskers represent 95% confidence intervals.

Figure 4: Impact of the Kargil War on employment

Note: The figure uses information from the 2011-12 Employment Unemployment survey. It plots the impact of being born in a military family by the year of birth on an individual's working status. The Child and Adolescent Labour (Prohibition and Regulation) Act of 1986 prohibits employment of a child under 14 in any employment including as a domestic help except helping own family in non-hazardous occupations, the relevant margin employment outcomes for those born in 1997 or earlier. The specification controls for year of birth, district of residence, and military family fixed effects, with standard errors clustered at the district level. Whiskers represent 95% confidence intervals.

Figure 5: Monthly *per capita* consumption expenditure across different survey years
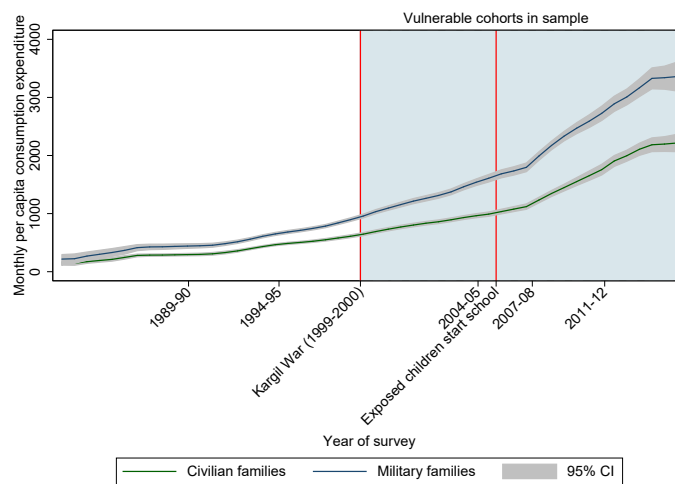
Note: The figures use information 23 rounds of the Household Consumption Survey listed in Table 1. Each tick on the x-axis is a survey round with the label indicating the year of the survey. The y-axis measures the average monthly *per capita* consumption expenditure for civilian and military households in different rounds. The vertical red lines mark the year of the Kargil War and the year in which children born during the Kargil War were expected to begin school. The area shaded grey denotes survey rounds that have respondents who were exposed to the war *in utero* or in early childhood.

Figure 6: Household consumption expenditure on different items
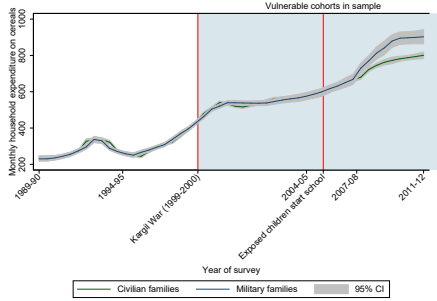
(a) Cereals (monthly)

(b) Pulses (monthly)
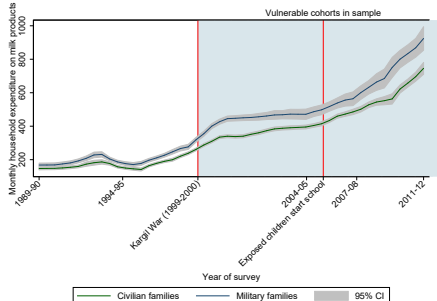
(c) Milk products (monthly)
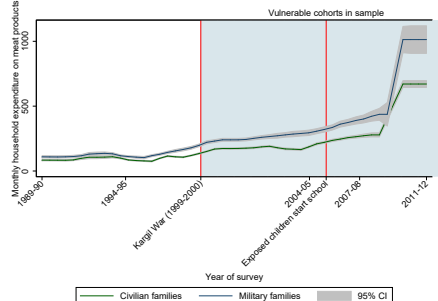
(d) Meat products (monthly)
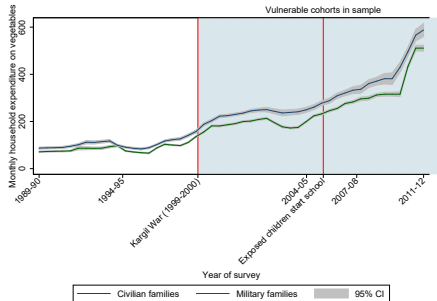
(e) Vegetables (monthly)
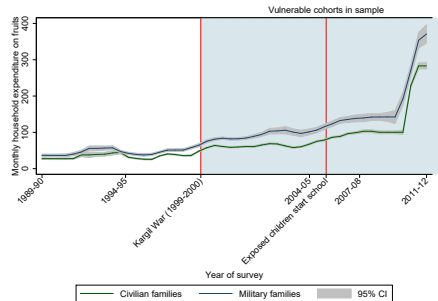
(f) Fruits (monthly)
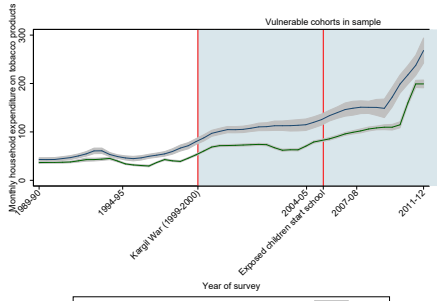
(g) Tobacco (monthly)
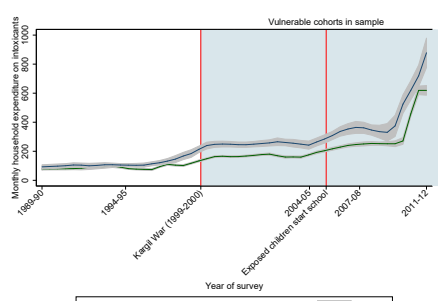
(h) Intoxicants (monthly)

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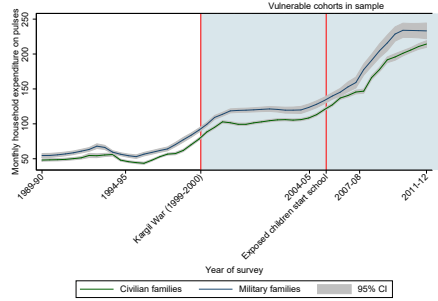Note: The figures use information 23 rounds of the Household Consumption Survey listed in Table 1. Each tick on the x-axis is a survey round. The y-axis measures the average monthly *per capita* consumption expenditure on different food items for civilian and military households in different rounds. The vertical red lines mark the year of the Kargil War and the year in which children born during the Kargil War were expected to begin school. The area shaded grey denotes survey rounds that have respondents who were exposed to the war *in utero* or in early childhood.

Figure 7: Household consumption expenditure on different items
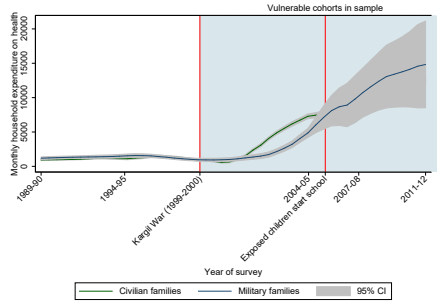
(a) Institutional health (yearly)
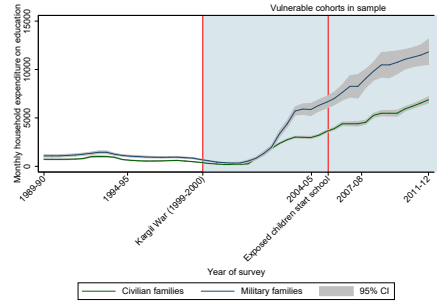
(b) Education (yearly)

Note: The figures use information 23 rounds of the Household Consumption Survey listed in Table 1. Each tick on the x-axis is a survey round. The y-axis measures the average yearly *per capita* consumption expenditure on (a) institutional health and (b) education for civilian and military households in different rounds. The vertical red lines mark the year of the Kargil War and the year in which children born during the Kargil War were expected to begin school. The area shaded grey denotes survey rounds that have respondents who were exposed to the war *in utero* or in early childhood.

Table 1: Details of Household Consumption Expenditure and Employment Unemployment surveys used

Round	Time Period	Type	Households	Individuals
Household Consumption Surveys				
38	1983	Annual	117,502	NA
43	1987-88	Annual	128,019	659,367
45	1989-90	Annual	28,780	138,054
46	1990-91	Annual	28,533	134,393
48	1992	Annual	13,137	67,697
49	1993	Annual	29,995	149,006
50	1993-94	Annual	115,354	564,537
51	1994-95	Annual	53,224	246,634
52	1995-96	Annual	48,637	238,035
53	1997	Annual	51,890	249,223
54	1998	Annual	26,949	133,961
55	1999-00	Annual	120,309	598,531
56	2000-01	Annual	57,273	388,482
57	2001-02	Annual	62,628	420,378
58	2002	Annual	32,669	154,087
60	2004	Annual	29,631	152,330
61	2004-05	Annual	124,644	608,497
62	2005-06	Annual	39,436	189,832
63	2006-07	Annual	63,729	291,742
64	2007-08	Annual	50,297	242,165
66	2009-10	Annual	100,855	468,451
68	2011-12	Annual	101,651	464,629
72	2014-15	Annual	83,600	390,724
Employment Unemployment Survey				
66	2009-10	Biannual	100,957	459,784
68	2011-12	Biannual	101,724	456,999

Notes: Sourced from National Sample Survey Organisation (NSSO). The 38th round of the Household Consumption Survey did not collect individual-level information.

Table 2: Summary Statistics

	Civilian family members (C)			Military family members (M)			C-M
	N	Mean	SD	N	Mean	SD	
Age (in years)	439986	17.58	7.22	6491	17.69	7.13	-0.12
% born around war	439986	0.09	0.28	6491	0.09	0.29	0.00
% literacy	439986	0.91	0.29	6491	0.98	0.15	-0.07***
% some formal educ	439986	0.91	0.29	6491	0.98	0.15	-0.07***
% completed primary	439986	0.68	0.47	6491	0.79	0.41	-0.11***
% completed middle	439986	0.49	0.50	6491	0.63	0.48	-0.14***
% completed secondary	439986	0.30	0.46	6491	0.46	0.50	-0.16***
Level of education	439986	3.62	2.03	6491	4.43	1.99	-0.82***
Working for pay	439986	0.26	0.44	6491	0.21	0.41	0.05***

Note: I use the eighth (2009-2010) and ninth (2011-2012) waves of the Employment and Unemployment Survey of India for these summary statistics. Level of education takes value '0' if the respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. $Born around war$ takes value '1' for years 1999 and 2000, '0' for others. $Military family members$ takes value '1' if the respondent belongs to a family with at least one active soldier, '0' otherwise. *** indicates that the difference is significant at the 1% level of significance.

Table 3: Impact of the Kargil War on the educational attainment of military children

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
			% ever		% currently	
	% literate		attended school		in school	
Born around war × Military family	-0.04***	-0.05***	-0.03***	-0.02***	-0.09***	-0.05***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Age cohort FE	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Survey	2009-10	2011-12	2009-10	2011-12	2009-10	2011-12
Mean of DV	0.90	0.92	0.85	0.88	0.53	0.56
Observations	225,223	221,254	225,322	221,275	225,322	221,275

VARIABLES	(7)	(8)	(9)	(10)
	% completed		Level of	
	primary school		education	
Born around war × Military family	-0.03	-0.02	-0.74***	-0.69***
	(0.03)	(0.02)	(0.06)	(0.05)
Age cohort FE	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes
Survey	2009-10	2011-12	2009-10	2011-12
Mean of DV	0.67	0.68	3.57	3.69
Observations	225,223	221,254	225,223	221,254

Note: * $p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Robust standard errors in parentheses are clustered at the level of the district. Level of education takes value '0' if the respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. $Bornaroundwar$ takes value '1' for years 1999 and 2000, '0' for others. $Militaryfamily$ takes value '1' if individuals i belongs to an military family, '0' otherwise. The sample consists of all those aged 6 to 30 at the time of the survey.

Table 4: Impact of the Kargil War on the educational attainment of military children using household fixed effects

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
			% ever		% currently	
	% literate		attended school		in school	
Born around war × Military family	-0.03***	-0.03***	-0.02**	-0.02***	-0.07***	-0.04***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Age cohort FE	Yes	Yes	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes	Yes	Yes
Survey	2009-10	2011-12	2009-10	2011-12	2009-10	2011-12
Mean of DV	0.90	0.92	0.85	0.88	0.53	0.56
Observations	206,082	200,870	206,199	200,895	206,199	200,895

VARIABLES	(7)	(8)	(9)	(10)
	% completed		Level of	
	primary school		education	
Born around war × Military family	-0.03	0.03	-0.38***	-0.29***
	(0.03)	(0.02)	(0.07)	(0.05)
Age cohort FE	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes
Survey	2009-10	2011-12	2009-10	2011-12
Mean of DV	0.67	0.68	3.57	3.69
Observations	206,082	200,870	206,082	200,870

Note: * $p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Robust standard errors in parentheses are clustered at the level of the district. Level of education takes value '0' if the respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. $Born around war$ takes value '1' for years 1999 and 2000, '0' for others. $Military family$ takes value '1' if individuals i belongs to an military family, '0' otherwise. The sample consists of all those aged 6 to 30 at the time of the survey.
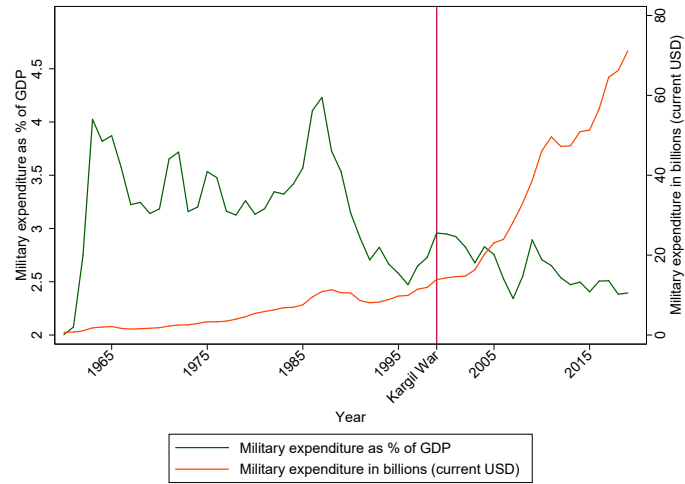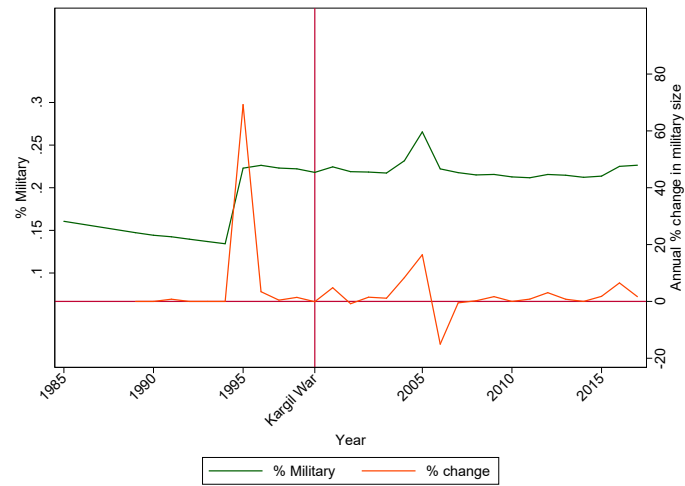
A   Appendix

Figure A1: Military expenditure in India over the years

Note: The figure uses information from the World Bank Indicators (World Bank (2019c)).

Figure A2: Size of the Indian military over the years

Note: The figure uses information from the World Bank Indicators (World Bank (2019b)).

Figure A3: Percentage change in expenditure on different items for military households
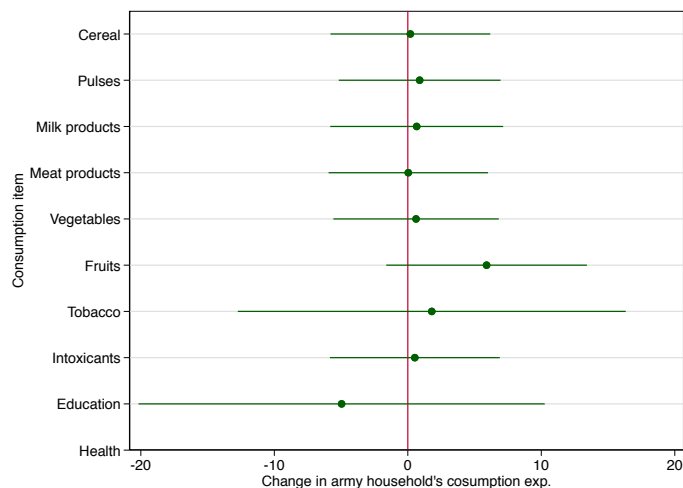
Note: The figure uses information from the 54th and 55th rounds of the Household Consumption Survey. Whiskers represent 95% confidence intervals. The estimated coefficients plot the difference in the percentage change in consumption expenditure on the listed items between military and civilian households.

Figure A4: Impact of the Kargil War on employment by gender

(a) Males

(b) Females

Note: The figure uses information from the 2011-12 Employment Unemployment survey. It plots the impact of being born in a military family by the year of birth on an individual's working status. The Child and Adolescent Labour (Prohibition and Regulation) Act of 1986 prohibits employment of a child under 14 in any employment including as a domestic help except helping own family in non-hazardous occupations, the relevant margin employment outcomes for those born in 1997 or earlier. The specification controls for year of birth, district of residence, and military family fixed effects, with standard errors clustered at the district level. Whiskers represent 95% confidence intervals.

Y

Exposed group: Military children

Trend absent exposure

DiD treatment effect

Adjusted group specific trend

After exposure

DiD with group trends treatment effect

Control group: Civilian children

Kargil War

Time

Table A1: Impact of the Kargil War using household fixed effects and group-specific trends

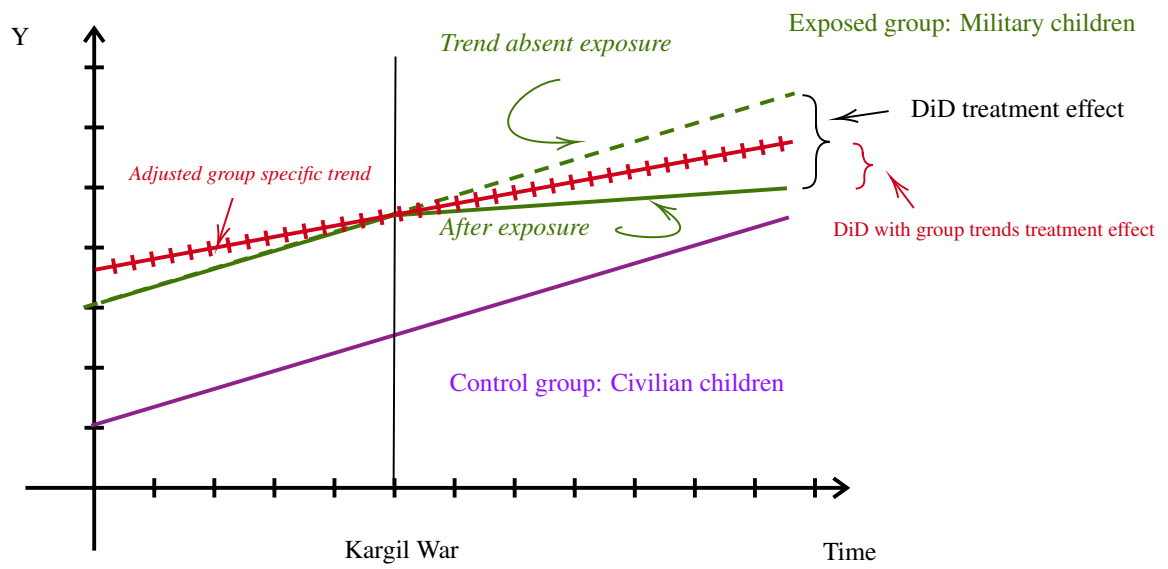| VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
			% ever		% currently	
	% literate		attended school		in school	
Born around war × Military family	-0.00	-0.02***	-0.02	-0.01**	-0.07***	-0.04***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Age cohort FE	Yes	Yes	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes	Yes	Yes
Group specific trends	Yes	Yes	Yes	Yes	Yes	Yes
Survey	2009-10	2011-12	2009-10	2011-12	2009-10	2011-12
Mean of DV	0.90	0.91	0.85	0.88	0.54	0.57
Observations	206,082	200,870	206,199	200,895	206,199	200,895

VARIABLES	(7)	(8)	(9)	(10)
	% completed		Level of	
	primary school		education	
Born around war × Military family	-0.02	0.05**	-0.02	-0.11**
	(0.03)	(0.02)	(0.06)	(0.05)
Age cohort FE	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes
Group specific trends	Yes	Yes	Yes	Yes
Survey	2009-10	2011-12	2009-10	2011-12
Mean of DV	0.66	0.68	3.51	3.63
Observations	206,082	200,870	206,082	200,870

Note: $^{*}\ p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Robust standard errors in parentheses are clustered at the level of the district. Level of education takes value '0' if the respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. $Born around war$ takes value '1' for years 1999 and 2000, '0' for others. $Military family$ takes value '1' if individuals i belongs to an military family, '0' otherwise. The sample consists of all those aged 6 to 30 at the time of the survey.

Table A2: Heterogeneity by number of adult males in the household

VARIABLES	(1)	(2)	(3)	(4)
	Level of Education			
Born around war × Military family	-0.68***	-0.63***	-0.27***	-0.36*
	(0.06)	(0.14)	(0.08)	(0.19)
Age cohort FE	Yes	Yes	Yes	Yes
Specification	District FE	District FE	Household FE	Household FE
Survey	2011-12	2011-12	2011-12	2011-12
# adult males	One	Two or more	One	Two or more
Mean of DV	3.67	3.89	3.67	3.89
Observations	196,267	24,987	196,267	24,987

Note: * $p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Robust standard errors in parentheses are clustered at the level of the district. Cohort size is the number of children born in an year in a district to military or civilian families. $Born around war$ takes value '1' for years 1999 and 2000, '0' for others. $Military families$ takes value '1' if individuals i belongs to an military family, '0' otherwise. The sample consists of all those aged 6 to 30 at the time of the survey.

Table A3: Impact on cohort size of military and civilian children

VARIABLES	(1)	(2)
	Cohort size	Cohort size
Born around war × Military families	-1.64***	-0.93*
	(0.50)	(0.53)
Age cohort FE	Yes	Yes
District FE	Yes	Yes
Survey	2011-12	2009-10
Mean of DV	12.37	13.20
Observations	17,881	17,066

Note: * $p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Robust standard errors in parentheses are clustered at the level of the district. Level of education takes value '0' if the respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. Adult males are males who are 30 to 60 years old at the time of the survey. $Born around war$ takes value '1' for years 1999 and 2000, '0' for others. $Military families$ takes value '1' if individuals i belongs to an military family, '0' otherwise. The sample consists of all those aged 6 to 30 at the time of the survey.

Table A4: Gender differential in the impact of the Kargil War on the educational attainment

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
			\% ever		\% currently	
	\% literate		attended school		in school	
Born around war $\times$ Military family $\times$ Male	-0.03***	-0.03***	-0.01	-0.01	-0.04**	-0.04**
	(0.01)	(0.01	(0.01)	(0.01)	(0.02)	(0.02)
Born around war $\times$ Military family $\times$ Female	-0.02	-0.02***	-0.04**	-0.02***	-0.10***	-0.03**
	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)
(Male - Female) effect	-0.01	-0.00	0.03	0.01	0.06**	-0.01
	(0.02)	(0.01)	(0.02)	(0.01)	(0.03)	(0.02)
Age cohort FE	Yes	Yes	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes	Yes	Yes
Survey	2009-10	2011-12	2009-10	2011-12	2009-10	2011-12
Mean of DV	0.90	0.91	0.85	0.88	0.54	0.57
Observations	206,082	200,870	206,199	200,895	206,199	200,895

VARIABLES	(7)	(8)	(9)	(10)
	\% completed		Level of	
	primary school		education	
Born around war $\times$ Military family $\times$ Male	-0.03	0.06*	-0.33***	-0.31***
	(0.04)	(0.03)	(0.09)	(0.09)
Born around war $\times$ Military family $\times$ Female	-0.02	0.00	-0.42***	-0.25***
	(0.05)	(0.03)	(0.11)	(0.07)
(Male - Female) effect	-0.01	0.05	-0.10	-0.06
	(0.06)	(0.04)	(0.15)	(0.13)
Age cohort FE	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes
Survey	2009-10	2011-12	2009-10	2011-12
Mean of DV	0.66	0.68	3.51	3.63
Observations	206,082	200,870	206,082	200,870

Note: * $p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Robust standard errors in parentheses are clustered at the level of the district. Level of education takes value '0' if the respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. $Born around war$ takes value '1' for years 1999 and 2000, '0' for others. $Military family$ takes value '1' if individuals i belongs to an military family, '0' otherwise. The sample consists of all those aged 6 to 30 at the time of the survey.

Table A5: Impact of the Kargil War on the educational attainment of children before 2001

VARIABLES	Level of Education			
Born around war × Military family	-0.87***	-0.55***	-0.93***	-0.53***
	(0.07)	(0.12)	(0.07)	(0.13)
Age cohort FE	Yes	Yes	Yes	Yes
Specification	District FE	Household FE	District FE	Household FE
Survey	2009-10	2009-10	2011-12	2011-12
Mean of DV	3.91	3.91	4.23	4.23
Observations	188,243	188,243	139,821	139,821

Note: * $p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Robust standard errors in parentheses are clustered at the level of the district. Level of education takes value '0' if the respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. $Born around war$ takes value '1' for years 1999 and 2000, '0' for others. $Military family$ takes value '1' if individuals i belongs to an military family, '0' otherwise. The sample consists of all those aged 6 to 30 at the time of the survey.

Table A6: Impact of the Kargil War on the educational attainment for different sub-samples

VARIABLES	Level of Education					
Born around war × Military family	-0.69***	-0.29***	-0.71***	-0.28***	-0.67***	-0.25***
	(0.05)	(0.07)	(0.06)	(0.08)	(0.06)	(0.08)
Age cohort FE	Yes	Yes	Yes	Yes	Yes	Yes
Specification	District FE	Household FE	District FE	Household FE	District FE	Household FE
Survey	2011-12	2011-12	2011-12	2011-12	2011-12	2011-12
Sample	Full	Full	Excluding J&K	Excluding J&K	No border with Pakistan	No border with Pakistan
Mean of DV	3.69	3.69	3.69	3.69	3.70	3.70
Observations	221,254	221,254	212,366	212,366	187,690	187,690

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses are clustered at the level of the district. Level of education takes value '0' if the respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. $Bornaroundwar$ takes value '1' for years 1999 and 2000, '0' for others. $Militaryfamily$ takes value '1' if individuals i belongs to an military family, '0' otherwise. The sample consists of all those aged 6 to 30 at the time of the survey.

Table A7: Impact of the Kargil War for families with no widows

VARIABLES	Level of Education			
Born around war × Military family	-0.69***	-0.29***	-0.70***	-0.30***
	(0.05)	(0.07)	(0.06)	(0.08)
Age cohort FE	Yes	Yes	Yes	Yes
Specification	District FE	Household FE	District FE	Household FE
Survey	2011-12	2011-12	2011-12	2011-12
Mean of DV	3.69	3.69	3.67	3.67
Observations	221,254	221,254	186,716	186,716

Note: $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Robust standard errors in parentheses are clustered at the level of the district. Level of education takes value '0' if the respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. $Born around war$ takes value '1' for years 1999 and 2000, '0' for others. $Military family$ takes value '1' if individuals i belongs to an military family, '0' otherwise. The sample consists of all those aged 6 to 30 at the time of the survey.

Table A8: Impact of the Kargil War using household consumer expenditure data

VARIABLES	(1) % literate	(2) % ever attended school	(3) % completed primary	(4) Level of education
Born around war × Military family	-0.04***	-0.04***	-0.01	-0.39***
	(0.01)	(0.01)	(0.02)	(0.06)
Age cohort FE	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes
Mean of DV	0.80	0.78	0.56	2.90
Observations	3,238,537	3,238,537	3,238,537	3,238,537

Note: $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Robust standard errors in parentheses are clustered at the level of the district. Level of education takes value '0' if the respondent is illiterate, '1' if the respondent is literate, '2' if the respondent has some formal education, '3' if the respondent has completed primary school, '4' if the respondent has completed middle school, '5' if the respondent has completed secondary school, '6' if the respondent has completed higher secondary school, and '7' if the respondent has a diploma or above. $Born around war$ takes value '1' for years 1999 and 2000, '0' for others. $Military family$ takes value '1' if individuals i belongs to an military family, '0' otherwise. The sample consists of all those aged 6 to 30 at the time of the survey.