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The Impact of Fundamentalist Terrorism on School Enrolment: Evidence from North-Western Pakistan, 2004-2016

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The Impact of Fundamentalist Terrorism on School Enrolment: Evidence from North-Western Pakistan, 2004-2016*

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Abstract

This paper investigates the Pakistani Taliban's terror campaign against girls' education in the Khyber Pakhtunkhwa province. We measure individual exposure to terror using the time and location of attacks against schools. The evidence suggests that the impact of the campaign was limited. We find limited evidence of reduced enrolment in response to terror, except during a 21-month period when the Taliban controlled the district of Swat. Where we do find evidence of reduced enrolment, it's generally small and diminishes over time. We also find no evidence of increased enrolment in religious schools, which were not targeted by the Taliban.

I. Introduction

It has been increasingly recognized that conflicts have serious adverse effects on children's educational attainment (GCPEA, 2020; Justino, 2011). Conflicts can affect schooling through multiple channels. Active conflicts may have direct effects such as the destruction of school buildings or roads needed to reach schools, the loss of teachers to violence or intimidation, the recruitment of children as soldiers, the displacement of students and their families, and the creation of a climate where parents are afraid to let children leave the home. There also exist indirect mechanisms such as reallocation of resources within households; for example, school children needing to find work to replace lost family income. In turn, reduced school attendance may result in a permanent decline in the stock of human capital,

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both at the individual and more aggregated levels, and thus lead to worse health and labour market outcomes. Several studies have shown that these effects can be quite large, depending on the age and enrolment status of children at the time of exposure. Akbulut-Yuksel (2014) finds that German children who resided in cities heavily targeted by allied bombings during World War II went on to attain significantly fewer years of schooling and were on average one centimetre shorter than children of same the age in non-targeted areas. Swee (2015) finds that the recruitment of child soldiers during the Bosnian civil war of 1992-95 led to a decrease in the likelihood that students completed secondary education but had insignificant effects on primary education. Akresh and de Walque (2008) find that school age children exposed to the genocide in Rwanda experienced a drop in completed schooling of almost half a year and were 15 percent less likely to complete 3rd or 4th grade.

In addition to reducing the overall level of education, conflicts may have important implications for the gender-based education gap. There may exist real or perceived differences by gender in the risk of violence, harassment, or abduction during conflicts; possibly leading to families being less willing to allow girls to attend school. In addition, during a conflict, households may reallocate increasingly scarce resources away from daughters and toward sons. Conversely, boys are more likely than girls to be recruited as child soldiers and forced out of school as a result. Previous studies examining gender-specific outcomes have had mixed findings on the relative impact of conflict on boys and girls. Chamarbagwala and Moran (2011) examine the effects of the civil war in Guatemala and find that during the peak conflict years (1979-84), Mayan girls in areas worst hit by conflict attained 12 percent fewer years of education than in the pre-war period, while for Mayan boys this gap was 15 percent. On the other hand, Shemyakina (2011) finds that the civil war in Tajikistan had much larger effects on girls than boys. Stewart et al. (2001) study the impact of armed conflict in several African countries and find that in some countries, boys' enrolment declines more than girls due to conflict, whereas the reverse is true for other countries. An important recent change in the nature of conflict has been the increasing prevalence of Islamic extremist groups with

ideological agendas regarding the role of women. These groups follow a strict interpretation of Islamic law that advocates the restriction of girls from participating in most activities outside the household, including schooling, from a fairly young age. In countries including Afghanistan, Nigeria, Pakistan, and Somalia, Islamist movements have engaged in targeted violence at girls and their schools (United Nations 2016). This sort of targeted violence is likely to amplify the gender-based effects of conflict, and thus conflicts involving these groups are likely to have gender-specific outcomes that are very different from those of other types of conflicts, such as ethnically motivated civil wars.

This paper examines Islamic fundamentalist terrorism and gender gaps in schooling, using the case of the Pakistani province of Khyber Pakhtunkhwa (henceforth KPK). Beginning in 2007, the Pakistani Taliban engaged in a campaign to de-secularize schooling and remove girls from public life. Girls under age 10 and all boys were generally permitted to remain in school, although in some areas they were warned to attend madrassas (religious schools) rather than secular state schools. The Taliban enforced this edict with violence; bombing schools at night and making threats to both teachers and students. Both boys' and girls' state schools were attacked, although girls' schools were disproportionately targeted (Amin, 2008; OCHA, 2009; Khan, 2012). According to the Global Terrorism Database there were nearly 400 attacks against schools in KPK between 2007 and 2016. Other sources put the numbers much higher (Khan, 2012; Yousafzai, 2014). Individuals speaking out against the edict, such as the teenage blogger and future Nobel laureate Malala Yousafzai, were dealt with harshly.[1] The school bombing campaign was limited in scope, focusing primarily on KPK in the northwest of the country, close to the Afghanistan border.[2] Even within KPK, there was considerable variation in the pattern of violence. During the early years of the

[1] In early 2009, Yousafzai wrote a blog entry exposing how a decree in forbidding girls from attending school was enforced by the Taliban. She was then targeted by Taliban gunmen in late 2012. (Brumfield, 2012).

[2] The Taliban also had a strong military presence in the Federally Administered Tribal Areas. However, the tribal areas are sparsely populated and Taliban actions in these areas were directed primarily against the Pakistani Military. In 2018, the tribal areas were merged into KPK.

campaign, between 2007 and 2009, the bulk of the attacks recorded in the Global Terrorism Database occurred in Swat, where the Taliban had effective control from late-2007. However, a successful military operation by the Pakistani Government cleared the Taliban from Swat in mid-2009. From this point forward, there were few attacks in Swat and the focus of the Taliban campaign shifted to less systematic attacks in other areas. Peshawar, a heavily populated district adjacent to the Federally Administered Tribal Areas (FATA), experienced highest number of attacks over the entire period of our study, with sustained high levels between 2009 through 2013. Several other districts (Charsadda, Bannu, Swabi, Mardan, Nowshera, and Dir) experienced an increasing number of attacks from 2009 and have at least 20 attacks recorded in the GTD through 2016. Another set of districts (Hangu, Kohat, Lakki Marwat, Dera Ismail Khan, Malakand, Mansehra, Karak, Battagram, Buner, Chitral, and Tank) experienced at least one attack, but never over six in a year or over 20 for the entire period. A few districts (Abbotabad, Haripur, Kohistan, and Shangla) were never the target of recorded attacks. The attacks declined dramatically toward the end of the period of our study due to a second Pakistani military initiative, Operation Zarb-e-Azb, which began in June 2014 and was aimed clearing militants from KPK and the adjacent areas of North Waziristan and FATA.

The effects of the Taliban bombing campaign on schooling outcomes have received a lot of coverage in official reports and in the media. Most observers have concluded that the Taliban's campaign had dramatic and persistent effects on schooling outcomes (OCHA, 2009; UKHO, 2012; O'Malley, B. 2010; Khan, 2012; Yousafzai, 2014). For example, an Amnesty International report claimed that thousands of children in KPK had been deprived of an education (UKHO, 2012) and a UNESCO report claimed that teachers in Swat remained too intimidated to return to work long after attacks had taken place, and even after the military defeat of the Taliban in 2009 (O'Malley, 2010). On the other hand, some reports claimed that the campaign had limited effects (Reuters, 2011). One factor which makes it difficult to assess the veracity of these opposing claims is that the underlying data on school enrolment is not discussed in any report of which we are aware. In many cases the

evidence is anecdotal, often based on anonymous interviews with Pakistani Education Department officials. We are unaware of any systematic attempt to estimate the overall effects across KPK using published data.

Our study relies on a large random sample of households in KPK to examine the determinants of school enrolment and the impact of terrorism in KPK. We use data covering individual children from the Pakistan Social and Living Standards Measurement (henceforth PSLM), a large, nationally representative household survey conducted annually since 2004. During the period of our study, the PSLM was carried out annually in all four Pakistani provinces (Punjab, Sindh, Balochistan, and KPK) and the Federal Capital Territory. A sixth administrative unit, the Federally Administered Tribal Areas, was not surveyed in all years. The only break in coverage occurred in 2009-10, when the PSLM was not conducted due to large scale flooding, which covered one fifth of the country. The survey is organized at the level of the household and covers education, health, social capital, marriage and fertility, employment, and economic status.

We use eleven rounds of the PSLM, from 2004-05, the first year the surveys were conducted, through 2015-16. We link the data from the PSLM to district-level data on terrorist incidents directed against schools from the Global Terrorism Database (GTD). We use this data to create an exposure to terrorism variable, based on the date and the location of the terrorist incident. Our main measure of exposure to terrorism is the number of school bombings in the individual's district of residence within a 30, 91, 182, and 365-day window. We also use attacks in the 30 days subsequent to the observation and attacks in adjacent districts as additional measures of exposure to terrorism. In our analysis, we allow for differential effects of school attacks on enrolment based on the gender and age of individuals. The Taliban's edicts focused on girls and their attacks disproportionately targeted girls' schools, thus we estimate separate effects by gender and examine whether terror activity had larger effects on girls' enrolment than that of boys. It is also plausible that the terror campaign had different effects on children in different age groups, as some of the Taliban's edicts banned girls from schools from age 10 and up.

Our main result is that the effects of the Taliban's campaign were much more limited than has been suggested by most Pakistani officials, international agencies, and media accounts. We find relatively little evidence of any effects of exposure to terrorism on enrolment for KPK as a whole. The probability of school enrolment for girls aged 10-14 and 15-18 does not decline in the immediate aftermath of school bombings in their own district. Even in the Swat district, where the Taliban had substantial control of many villages between September 2007 and June 2009, we find relatively weak evidence that families were dissuaded from sending children to school by bombings. However, we do find a sharp increase in the gender gap in school enrolment for children over aged 10 in Swat during this period, which was independent of the timing of school bombings.

We find other evidence of the resilience of the Pakistani population. The probability of girls enrolling in secondary school counterintuitively increased in the immediate aftermath of school bombings. While we are not able to formally identify why this occurred, one plausible explanation is that that families in relatively safe areas may have reoptimized their schooling strategy for their daughters in the face of Taliban threats, continuously enrolling girls during periods when school attendance was safe in anticipation of a future ban. We also find that the very small, estimated effects on enrolment were entirely local, and there is no evidence that the attacks reduced enrolment probabilities for children in neighbouring districts. Finally, we find no evidence of students switching from enrolling in state or private schools to enrolling in madrasas following attacks. Madrasas accounted for a very small percentage of enrolment in KPK throughout the periods.

The outline for the remainder of the paper is as follows. After the introduction, the second section provides a brief history of the conflict in KPK and the Taliban's campaign to remove women and girls from public life. The third section describes the data used in this paper. The fourth section provides a brief outline of the schooling system in Pakistan and some summary statistics on school enrolment

prior to the start of the Taliban's campaign. The fifth section describes our empirical methodology and shows our results. Finally, the sixth section concludes.

II. The Pakistani Taliban and the conflict in Khyber Pakhtunkhwa

Pakistan has experienced a series of civil conflicts dating back to its founding in 1947, following the partition of Colonial India. As of 2016, the country has experienced sectarian conflict in Balochistan, a protracted low-intensity dispute with India over the region of Kashmir, and an Islamist insurgency in the semi-autonomous Federally Administered Tribal Areas (FATA) and in KPK. It is the insurgency by the Tehrik-i-Taliban Pakistan (Pakistani Taliban) in KPK, which is the focus of our paper. The Taliban were formed in the tribal areas in the northern parts of the country, but the vast majority of their attacks against schools have taken place in KPK. This section briefly outlines the history of the Islamist insurgency and the school bombing campaign.

The origins of the Islamist insurgency date back to the Soviet occupation of Afghanistan in the 1970s. During the occupation of Afghanistan, fighters from Pakistan crossed over the border to fight alongside the Afghani Mujahideen and the Taliban (Abbas, 2008). These fighters shared a religious extremist ideology and a predominantly Pashtun ethnicity with their Afghani counterparts. They maintained close ties to the Afghani Taliban and al Qaeda after the end of the Soviet occupation. In addition to drawing membership and support from local tribes, they have also received support from Arab, Chechen, Uzbek, and other foreign fighters who arrived in FATA during the Soviet-Afghan War and following the NATO invasion of Afghanistan. After NATO forces toppled the Afghani Taliban regime in Kabul in the aftermath of the 2001 attacks on the United States, the Taliban regrouped a sizable contingent of forces along sections of the remote and rugged border adjoining their traditional strongholds in Afghanistan (Abbas, 2008). The Taliban found refuge among local tribes in these regions. They were also able to exploit numerous unguarded mountain-passes along the 2500-kilometre Pakistan-Afghanistan border that were often only known to locals when

they came under attack from Pakistani, Afghani, and American forces (Zaidi, 2010).

After Pakistan entered the War on Terror, its army began hunting the various militant groups with hideouts in the regions along Afghani border. In reaction, between 2002 and 2007 the various Islamist militias in the tribal areas and adjoining regions of KPK united into the Pakistani Taliban (Abbas, 2008). The ultimate goal of the Taliban insurgency is to overthrow the Pakistani government and impose Sharia (strict Islamic) law. Prior to 2007, the activities of the insurgency were concentrated in the rugged, sparsely populated tribal regions, beginning in Waziristan and spreading to Khyber, Orakzai, Kurram, Bajaur, and Mohmand agencies. The attacks during this phase of the insurgency were directed predominantly at Pakistan's security forces. Outside FATA their initial activities were limited to targeted attacks against Pakistani politicians and foreign interests deemed to be supporting the state.

Although the insurgency started in the tribal regions, over time militias also emerged in settled areas of Khyber Pakhtunkhwa province, particularly districts adjacent to FATA such as Peshawar, Charsadda, Nowshera, Dir, Bannu, and Hangu and in the Swat Valley (see Figure 1). Unlike the sparsely settled tribal belt, where Pakistan's security forces faced the bulk of attacks, in KPK the Taliban's approach was to set up micro-emirates, where they enforced an extremist version of religious ideals on the local populations (O'Malley, 2010). Within these areas, the Taliban ruthlessly suppressed practices that they consider to be un-Islamic. In addition to schools, targets included international aid and development offices; historical sites with Buddhist artifacts; video and music shops; and barber shops, due to their practice of shaving beards (BBC News, 2007), (Daily Times, 2007), (Dawn News, 2009), (Pakistan Press Foundation, 2016), (Reuters, 2007). One of the Taliban's main tactics in establishing Sharia law was through the control of education. Demands were issued to shut down schools. Letters were sent to children and parents warning children not to attend state or public schools. The content of these letters varied. The initial letters sent in Swat stated that girls over

age 10 were prohibited from attending school. Later letters extended the ban to all girls attending school. Letters in other districts do not mention age. Some letters also banned boys from attending state and private schools and warned them to attend madrassas instead. To enforce these decrees, the Taliban bombed school buildings and threatened both teachers and pupils. The targets included both state and private schools, although girls' schools were often singled out while madrassas were not targeted. The bombings usually took place in the middle of the night. Most incidents involved physical damage or destruction of school buildings, although a few also had human casualties (O'Malley, 2010).

The Swat District, one of the two largest urban areas in KPK, was the most important focal point of the Taliban's early activities. The Taliban began amassing forces in Swat in early-2007. By September 2007, the Taliban directly controlled most of the Swat district. In October 2007 Pakistani security forces launched Operation Rah-e-Haq (also known as the First Battle of Swat) in an attempt to clear the Taliban from the district. Although the Pakistani Army had individual successes in battle, they failed to clear the district and the Taliban remained a strong presence. By early-2008 the Taliban had regrouped and controlled most of the Swat Valley. By 2009 they controlled towns within 100 kilometres of Islamabad. In May 2009, the Pakistani military launched Operation Rah-e-Rast (or the Second Battle of Swat). Within a month, the Pakistani military decisively defeated the Taliban and regain control of the district. While it is believed that many Taliban fighters slipped back into the local population (Buneri, 2012), they never again had the same level of on-the-ground control in any KPK district.

The bombings of secular schools began in 2007 and were initially concentrated in Swat. In late 2007 and throughout 2008, the attacks on girls' schools spread to other districts, including Dir, Peshawar, Mardan, Charsadda, Bannu. With the completion of Operation Rah-e-Rast II in July 2009, the number of attacks in Swat declined dramatically. Unlike Swat, attacks against schools continued elsewhere in KPK up to 2016 in our sample period. After 2008 there were substantial increases in attacks in Peshawar, Charsadda, Bannu, Swabi, Mardan, Nowshera.

Many of the worst affected districts were adjacent to FATA and North Waziristan, which provided hideouts for the Taliban when they came under threat from Pakistani security forces. The level of attacks remained high in at least some districts through 2013. In June 2014 the Pakistan Army began Operation Zarb-e-Azb, which was aimed at removing militants from their remaining strongholds. The number of attacks on school declined from 2014, although the deadliest attack occurred at the Army Public School in Peshawar on December 16, 2014, killing 141 people. By 2016, the end of the period of our study, there were only 6 attacks throughout KPK recorded in the GTD, less than 10 percent of the number three years earlier.

III. Data

Our data are drawn from two main sources. Data on enrolment and other individual characteristics are drawn from the Pakistan Social and Living Standards Measurement (PSLM) for the years 2004-05 to 2015-16, excluding 2009-10, when the PSLM was not conducted. The PSLM is an annual, nationally representative household survey conducted since 2004-05. The sample size is large, averaging about 15,000 households and 20,000 school-aged children in KPK per year, and around 75,000 to 100,000 households and about 100,000 school-aged children per year in Pakistan as a whole. We have pooled the data from the annual surveys to create a repeated cross-sectional data set with approximately 225,000 observations of school-age children in KPK province.

The PSLM covers all areas of Pakistan, except military restricted zones and the tribal areas. During the period of our study, there is no mention of any restrictions in the settled areas of KPK. The only interruption in coverage was in 2009-10, when the PSLM was not conducted due to widespread flooding throughout Pakistan. KPK, and Peshawar district in particular, experienced some of the worst flooding (OCHA, 2010). The timing of the surveys is as follows. The fieldwork for the fourth round of the PSLM was conducted in KPK between July 2007 and June 2008, shortly after the first reported school attack in June 2007. The fieldwork for

the fifth round was conducted between August 2008 and June 2009, with Swat surveyed between January and June 2009. This coincides roughly with the last attacks in Swat in March of 2009, following the Rah-e-Rast II military operation. For later survey rounds, the field work was conducted between September and June of the following year. Surveys were not conducted in summer months due to extreme heat. This timing is fortuitous for our purposes, as the surveys coincide with the academic year across the country. The PSLM thus does not miss any schooling periods, and we do not have to worry about under-reporting of enrolment due to schools not being in session at the time of the survey.

The data from the PSLM cover each member of sampled households and contain information on education, health, social capital, fertility and marriage, employment, and economic status. Our sample consists of all school-aged children (ages 5-18). The dependent variable in our regressions is a dummy variable for either enrolment at any type of school or enrolment in a Madrassa (Islamic school). The information on the type of school attended by an individual is directly reported in the PSLM. Apart from the exposure to terrorism variables, our regressions include controls for several standard determinants of school enrolment: age and its square; father's and mother's income in log (real rupees), father's and mother's years of education, household size, a dummy for whether the child is married, and a dummy for whether the child resides in an urban area. Parental income was not reported in a consistent manner across observations, and there are observations with daily, monthly, and annual values. We have standardized income measures as nominal monthly earnings, which we deflate using World Bank data to obtain real incomes (World Bank, 2016). Appendix B, Table B1 shows a list of the variables that we use from the survey along with a brief definition, summary statistics, and expected effects on the probability of school enrolment. The expected signs are drawn from a long literature on schooling in developing countries (Currie and Moretti, 2003; Glewwe and Jacoby, 1994).

Our second main source of data is the Global Terrorism Database (GTD), an open-source database containing information on terrorist incidents by place, year, and

type of target. The GTD database is the only one of which we are aware that systematically records dates, locations, and targets and we rely exclusively on this data for the construction of our measure of exposure to terrorism. As our focus in this paper is on school enrolments, we restrict our attention to terrorist incidents involving civilian educational institutions. The GTD records 384 attacks on schools in KPK between 2007 and 2016. This is substantially lower than the number of attacks recorded in other sources because the GTD only includes attacks where a specific time, location, and target can be identified.[3] We do not believe that mismeasurement of the number of attacks is likely to cause significant bias to our main results for two reasons. First, the nature of the GTD means that it tends to pick up the larger attacks. These attacks are likely to receive the most publicity and be most intimidating and, hence, have the greatest effect on school attendance. Secondly, the number of incidents by district/year in the GTD is strongly correlated with reported incidents in other available sources.[4]

We have compiled incidents of terrorism against schools by district and date to create our measure of exposure to terrorism. Although the GTD database provides detailed information about the location of incidents, we restrict our analysis to the district level, as this is the level reported in the PSLM. The first three recorded incidents occurred in 2007. Between 2008 and 2014 there were an average of about 51 per year, with at least 37 in each year. Figures 1 and 2 show the number, location, and timing of attacks against schools recorded in the GTD. The geographic location of the attacks is shown on a map of KPK in Figure 1. The attacks were clustered in districts bordering FATA and (Peshawar, Charsadda, Nowsherra, Bannu), districts in the central area near Peshawar (Marden and Swabi), and in Swat. Districts in the Northeast of the province experienced the

[3] OCHA (2009) claims that 900 government and private schools were closed in 2009. Amin, (2008) concludes that 116 girls' schools and 56 boys' schools were destroyed or damaged between 2007 and March 2009 in Swat alone. Khan (2012) claims that the Taliban destroyed over 800 schools throughout KPK and over 400 in Swat alone. In her Nobel lecture, Yousafzai (2014) also states that over 400 schools in Swat were destroyed.

[4] We have cross-checked the incidence of terrorism in the GTD with the South Asia Terrorism Portal (another open-source data base, which also includes some incidents that absent from the GTD because the time, location, or target are not known) and there is a strong correlation between the number of incidents recorded (South Asia Terrorism Portal, 2016).

fewest attacks, with several experiencing none (Kohistan, Abbatabad, Shangja, Haripur). Figure 2 shows the total number of attacks by year for the country as a whole and for the Swat and Peshawar districts. It can be seen that the attacks began in 2007, accelerated in 2008, peaked in 2012, and declined sharply from 2014. The timing of attacks also differs across location, peaking earliest and highest in Swat during the period of Taliban control, and occurring at lower intensity, but for a longer time period in the other districts.

In the empirical analysis we use the GTD data to create a measure of exposure to terrorism, specifically the number of attacks reported in the district of residence in the 30, 91, 182, and 365 days prior to the observation and 30 days subsequent to the observation. In addition, we also include the number of attacks in adjacent districts over the same time frames as independent variables. This event study approach with a variable event window captures the extent to which the effects of the attacks persisted over time. It is likely that damaged or destroyed schools were rebuilt over time, allowing students to return to their education. It is also possible that parents who became afraid to send their children to school after a bombing remained afraid over an extended period of time and only allowed their children to return to school after an extended period away. We do not have strong priors on how long these fears may have persisted and have consider the effects over one-month, three-month, six-month, and twelve-month windows in the empirical analysis. Including incidents in the 30 days prior to attacks enables us to determine whether the build-up to events (for example, warning letters sent by the Taliban prior to bombings) had an effect on enrolment. Including attacks in adjacent districts as an independent variable captures the extent to which these effects occurred across district boundaries, which were easily and frequently crossed by Taliban fighters.

IV: Schooling and Enrolment Patterns

The primary and secondary education system in Pakistan is modelled on the British system and operates as follows (Blood, 1994). Preschool education runs

from ages 3-4 and Kindergarten starts at age 5. Formal primary education begins with grade 1 (typically age 6) and runs through grade 8 (typically age 14). Primary schooling is divided into junior school (grades 1-5) and middle school/lower secondary (grades 6-8). Secondary (matriculation level) schooling runs from grades 9 (age 15) through grade 12 (age 18). Unlike in the developed world, primary and secondary education were not compulsory in Pakistan during the period of our study. As a result, some children never enrolled in school. Many others permanently withdrew prior to completion of secondary schooling or interrupted their schooling at some point.

Figure 3 shows enrolment rates by age for KPK in 2006-07, the last year prior to school bombings. Figure 3 highlights several aspects of schooling in KPK. First, education was far from universal during the period of our study. The highest age-specific enrolment rates occur from about ages 7 to 9 for girls and 6 to 14 for boys, at slightly over 60 and 80 percent of girls and boys, respectively. UNESCO estimates show that the overall enrolment rate for Pakistan is among the lowest in the world. Secondly, enrolments rates are considerably higher for boys than girls at all ages above 5 and the gap widens dramatically after about age 7-8. The male/female enrolment ratio is about two to one after age 14. This gender gap is among the highest in the world (UNESCO Institute for Statistics, 2023).

In our analysis, we assign children into three age groups: 5-9, 10-14, and 15-18. This is to capture the fact that it is likely that the school bombing campaign had different impacts on children of different ages. We chose the age boundaries based on the nature of Pakistani school system and the Taliban edict. We chose to begin the youngest group at age 5 rather than age 6 following the Annual Reports of the PSLM, which groups younger children into ages 5-9 when presenting aggregate data on enrolment. Again, following the PSLM grouping, we chose the first boundary between groups between the ages of 9 and 10. An additional reason for choosing this boundary was that some of the Taliban's early edicts warned girls from the age of 10 not to attend school. We chose the second boundary to be between the ages of 14 and 15 for two reasons. First, 14 is the standard age at

which primary education ends, although it was fairly common for children to interrupt their studies at some point and complete primary education at a later age. Secondly, it is evident from Figure 3 that age 14 marks the beginning of a continuous age-specific decline in boys' enrolment rate (UNICEF, 2023). This decline begins earlier for girls but continues between ages 14 and 15. Some of these age boundaries reflect somewhat *ad hoc* choices; however, our robustness checks show that age boundaries do not drive any of our main results.

We expect the largest effects of the school bombing campaign to be concentrated in the two older age groups. The Taliban's early edicts did not prevent children under age 10 from attending school, so we expect less impact for this group in terms of either overall enrolment declines or relative declines for girls. Although the edicts applied equally to both the middle and oldest groups throughout the period of our study, the underlying difference in enrolment rates shown in Figure 3 suggests that those who stayed in school past age 14 may have been systematically different from those who ended their schooling with the completion of primary education. It is likely, for example, that students who continued past primary school were from wealthier families, who could afford to live in safer areas or attend schools with better security. These families may have been less intimidated by the Taliban's threats. Conversely, the Taliban may have focussed more on removing older girls from school as part of their general campaign to remove women from public life.

As a first approach to examining the impact of the Taliban's edict on school enrolment, Table 1 shows the enrolment rates over our sample period for KPK and Pakistan as a whole split by age group, gender, and year. Table 1 highlights some important features of schooling in KPK. First, boys' enrolment rates in KPK were well above the average for the country for all age groups. However, girls' enrolment rates in KPK were slightly below the national average at ages 5-9 and well below the national average from age 10. Secondly, the Taliban's bombing campaign appears to have had little impact at an aggregate level. An inspection of Table 1 suggests that school enrolment rates in KPK broadly followed national trends, if

anything the enrolment of girls in KPK increased by more than the national rate in 2007-08, during the worst of the school bombings.

The evidence from Figure 3 and Table 1 points to a large gender-based enrolment gap in KPK even prior to the Taliban's bombing campaign. This gap is larger than that of other Pakistani provinces and much larger than that experienced in most developing countries.[5] There are likely multiple reasons behind the gender gap, including geographic isolation due to the mountainous terrain, a lower urbanization rate than other provinces, and a deep-rooted conservative Islamic culture.

V. Empirical Estimation and Results

A. Empirical Specification

The empirical identification approach used in this paper is a difference-in-difference-in-difference event study strategy which exploits the variation in the intensity of terrorist attacks on schools across time and space. We estimate the effects of attacks on enrolment by age and gender. Our primary measure of exposure to attacks is the number of attacks in the district of residence (or own-district, denoted ATTACK_O) within a fixed time window. We do not have strong priors as to how long the effects of physical destruction of school building or intimidation are likely to persist, so we consider alternative time windows of 30, 91, 182, and 365 days following an attack. Varying the time window also allows us to determine the cumulative effect on human capital accumulation; as the long-term implications of children not returning to school within a year of an attack may be very different than if they are out of school for only a few weeks. We also consider a window 30 days prior to the attack, as in some cases, particularly in Swat during the period in which the Taliban controlled the district, warnings were

[5] Pakistan Bureau of Statistics (2007) provides gross enrolment rates by province. KPK has the highest enrolment rates for boys and amongst the lowest rates for girls. The male/female ratio for students aged 14-15 attending at the matric level in 2006-07 was 2.5 in KPK, compared to 1.3, 1.4, and 1.8 in Punjab, Sindh, and Balochistan, respectively.

issued prior to attacks and thus children may have withdrawn from school in anticipation of attacks. We obtain the number of attacks within a given window by matching individuals' date of interview and district of residence from the PSLM to the individual school bombings identified in the GTD. Our approach to linking these data sets and creating exposure to terrorism variables is described in Appendix A. As an additional measure of exposure to terrorism, we also consider the number of attacks in neighbouring districts (denoted N) over the same time windows, ATTACK_N. This variable captures whether the intimidatory effects of violence spilled across into bordering districts. The PSLM provides only an individual's district of residence, not their exact location, and thus, it is likely that at least some attacks in adjacent districts were geographically very close to individuals surveyed in the PSLM.

In our econometric analysis, we examine the determinants of $E_{i,j,t}$, a dummy variable which measures the enrolment status of the individual i, residing in district j, in year t. E takes a value of one if the individual is either enrolled in any school or, alternatively, if they are enrolled in a madrassa (religious school). We run a series of probit regressions with the following baseline specification:

$$E_{i,j,t} = \alpha + \beta X_{i,j,t} + b_1 FEMALE_{i,t} + b_2 AGE10_{i,t} + b_3 AGE15_{i,t} + b_4 ATTACK\_O_{j,t} + b_5(FEMALE_{j,t} * ATTACK\_O_{j,t}) + b_6(AGE10_{i,t} * ATTACK\_O_{j,t}) + b_7(AGE15_{i,t} * ATTACK\_O_{j,t}) + b_8(FEMALE_{i,t} * AGE10_{i,t}) + b_9(FEMALE_{i,t} * AGE15_{i,t}) + b_{10}(FEMALE_{i,t} * AGE10_{i,t} * ATTACK\_O_{j,t}) + b_{11}(FEMALE_{i,t} * AGE15_{i,t} * ATTACK\_O_{j,t}) + b_{12} ATTACK\_N_{j,t} + b_{13}(FEMALE_{j,t} * ATTACK\_N_{j,t}) + \ldots + e_{i,j,t}$$

The X vector includes a set of fairly standard individual-level determinants of school enrolment: household size, parental education and income, marital status, year dummies, and district dummies. Table B1 in Appendix B shows the means and standard deviations of these variables and the expected signs of their regression coefficients.

The main independent variables of interest are ATTACK_O and ATTACK_N and their interactions with gender and age. The coefficients on these variables capture whether increases in the number of school attacks had effects on enrolment and, if

so, whether these effects were larger for girls, for older children, and for older girls. If the bombings reduced the enrolment probability for all groups, then one would expect coefficients b_4 and perhaps b_{12} to be negative. If the Taliban's school bombing campaign was successful in their campaign to exclude girls, one would expect the coefficient b_5 to be negative, and if this effect were stronger for older girls, one would expect the coefficients b_{10} and b_{11} to be negative (and possibly likewise for similar interactions of ATTACK_N).

B. Baseline estimation results

In our baseline specification, we consider the number of attacks within the previous 30 days in the individual's district (and its interaction with the age and gender variables). As robustness checks we vary the time window (30 days prior to an attack, 91 days subsequent, 182 days subsequent, and 365 days subsequent). The regressions are run using robust standard errors clustered by district in order to control for spatial effects – e.g. within-district correlation in the error term.

Table 2 reports the main results of the variables of interest for the full sample, while Figure 4 shows the enrolment rates for only girls in the periods of attacks. A full set of results including coefficients for the control variables is presented in Appendix Table B2. The coefficient on ATTACK_O in Table 2 is positive, but insignificant all specifications. The magnitude of the effect in all cases is relatively small. The estimated change in the absolute value of the probability of enrolment in the 30 days following an attack ranges from 1 to 2 percentage points for both age group 10-14 years and 15 to 18 years, although the sign of the effect is not consistent across specifications. A second observation about the results in Table 2 is that the absolute value of the coefficients is near-monotonically decreasing with the number of days the attacks are lagged. For instance, the coefficient for girls aged 10-14 and aged 15-18 reaches close to zero at 365 days from the attack in the village. This suggests that any effects of attacks on the probability of enrolment, which were small to begin with, tended to dissipate over time. In other words, there is no evidence that the attacks reduced long-term human capital accumulation. It is further evident from Figure 4 that the only significant age/gender differences in

the impact of ATTACK_O is for girls aged 10-14. Counterintuitively, this effect is positive, implying that enrolment rates increased slightly following attacks. Relative to the baseline group of boys aged 6-9, greater exposure to attacks clearly does not reduce the probability enrolment for girls of any age. A third observation (Appendix table B2) is that the absolute value of the effects of attacks in neighbouring districts is very close to zero; in other words, there are not substantial spillover effects across districts. This result is perhaps not surprising, given the small effect of attacks within districts.

In summary, the net effect of school bombings on the probability of enrolment in KPK over the period of our study was substantially less than might be assumed from some of the media accounts (Peacewomen, 2009; Human Rights Watch, 2009). While we cannot identify the precise reasons why these effects were so small, it was likely some combination of the following factors: most attacks destroyed school buildings but did not harm individuals, the Taliban presence was not strong enough in many places to constitute an ongoing threat to local populations, and even when school buildings were destroyed local villages were able to find alternative places to conduct education. Another possibility is that families reoptimized their children's enrolment pattern in response to Taliban threats and attacks. Families may have had a target level of education for their daughters; for example, completing the lower level of secondary education. In the absence of attendance requirements and Taliban threats, it is likely that many families chose to enrol children in school sporadically, disenrolling them when they were needed to help with tasks at home or on the farm. The Taliban threat and the potential for future schooling bans may have created a fear that girls would face increased security risks or no longer be able to attend school after about age 10 and thus increased the cost of disenrolling younger children. This, in turn, may have persuaded families to leave children in school when it was safe to do so. In other words, enrolment may have increased in other (safer) parts of the same district following an attack. Similarly, we cannot identify exactly why the effects dissipated over time, but it was likely a combination of rebuilding damaged schools and families being less intimidated further in time from the event.

C. Madrassa Enrolment

Some of the early edicts from the Taliban warned students and their families to enrol in Madrassas (religious schools), rather than in secular schools. Madrassas were not attacked and if a local secular school was damaged or destroyed by an attack, enrolling in madrassa may have been the only way to continue schooling. This suggests that one consequence of the Taliban's school bombing campaign may have been to increase madrassa enrolment. The Western media has long focused on Madrassas as a source of radicalization and recruiting ground for the Taliban (Andrabi et al., 2006; Hadid and Sattar, 2019). Another, perhaps more general, concern is that madrassas' focus on religious education results in their students receiving less training in writing, math, science, and other secular subjects. This, in turn, implies that if students switched their primary enrolment from secular schools to madrassas following Taliban school bombings it would have reduced the rate at which they accumulated human capital. Recent government attempts to reform madrassa education have largely focused on increasing the teaching of these subjects (Hadid and Sattar, 2019). Below, we examine enrolment in madrassas and whether attacks on schools resulted an increase in this enrolment.

The evidence on the extent of madrassa enrolment is mixed. Several reports conclude that between 1,000,000 and 2,500,000 students throughout Pakistan were enrolled in madrassas between 2000 and 2019 (Andrabi et al., 2012; Andrabi et al., 2006; Hadid and Sattar, 2019). The figure of 2,500,000 students in 2019 reported by Hadid and Sattar (2019) represents about 3.7 percent of the school age population and about 6 percent of enrolled students.[6] However, the PSLM data suggest much lower figures (Andrabi et al., 2012; Andrabi et al., 2006; PSLM 2004-16). Across all years of our sample, only 1.36 percent of Pakistani students

[6] We obtained overall population figures from Pakistan Bureau of the Census (2021), which reports the total population age 5-17 (67,624,691). The population age 6-18 is likely to be slightly lower, so the figures above may be a slight underestimate of the claimed madrassa enrolment percentage. We estimate the total number of students enrolled using the average enrolment rate in the PSLM. Other sources suggest madrassa enrolment was higher. Andrabi et al. (2006) survey media articles about enrolment and find claims of 10 percent of all enrolled students (The Los Angeles Times, April 2003) and even 33 percent of all enrolled students (The Times, citing an International Crisis Group Report).

attended religious schools (larger madrassas, usually connected to a big mosque) and a further 0.88 percent attended mosque schools (smaller madrassas, usually connected to a smaller local mosque). The figures for KPK are slightly lower, at 1.30 percent for religious schools and 0.52 percent for mosque schools. Andrabi et al. (2012) argue that the large discrepancy in these figures is due to widespread casual enrolment in Madrassas. Students may spend a few hours a week learning religion in addition to their secular studies, similar to Sunday school attendance in the west. This sort of casual attendance would not be recorded in the PSLM, and thus will not be included in our regressions. However, this sort of under-reporting of casual madrassa attendance would be of little concern for our purposes, as a student with a primary enrolment in a secular school who also attended a madrassa for a few hours per week would likely be accumulating at least as much human capital as one enrolled in secular school alone.

In Table 3, Figure 5, and Table B3 in Appendix B, we report the results of probit regressions on madrassa attendance. As with the regressions on enrolment in any school, the coefficients on attacks are insignificant in most of these regressions. The only exception is that the coefficient on the interaction of attacks and female is positive and significantly different from zero at a one-percent level for the 30-day window. This can be interpreted as weak evidence that the bombings may have motivated some families to send their daughters to madrassas, although it is clear from both Table 3 and Figure 5 that this effect was fairly small and quickly dissipated. Three months after an attack there is no evidence of any lasting impact. Moreover, the coefficients on the interaction of attacks, female, and aged 10-14 and age 15-18 are not significant in any specification and are often negative.

Taken as a whole, this evidence suggests that overall effect of school bombings on madrassa enrolment was minimal. Moreover, if madrassa attendance was misreported in the PSLM due to respondents' fear of the Taliban, the likely bias would be towards over-reporting following school attacks. If families feared for their safety following school bombings, their most likely response would have been to falsely report madrassa attendance to placate the Taliban. Thus, if anything,

our estimated effects of school bombings on madrassa attendance, which are already close to zero, are biased upwards.

D. The Case of Swat, September 2007 – June 2009

The regressions presented in Table 2 show that terror attacks on schools did not significantly reduce enrolment for all age groups. However, it is possible that differences in the underlying environment surrounding the attacks resulted in heterogeneity in effects across time and districts. During most of the period of this study, the Taliban's on-the-ground presence was fairly weak and their attacks on schools were predominantly isolated guerrilla-style events. However, as noted in Section II, for approximately a year and a half between late-2007 and mid-2009, the Taliban had substantial control of the Swat district. During the period that they controlled much of Swat, the Taliban imposed a strict version of religious law (Sharia) and issued edicts against secular education, particularly for girls. These edicts were backed by the bombing of schools. During this time, attacks on schools were more frequent and better coordinated. In addition, the Taliban's greater on-the-ground presence around villages meant that they could administer harsh punishment to those who defied their edicts, and this may have dissuaded school attendance beyond any effects of school bombings. Stories of beatings and even killings in Swat during this period appeared in the press and scholars have argued that many children experienced severe psychological trauma as a result of witnessing violence or the ongoing credible threat of violence (Hussain, 2010; Reed et al., 2012). Thus, it is possible that this environment, more than any other that existed in Pakistan during the period of our study, contributed to a climate of fear, resulting in children (particularly girls) being withdrawn from school. In this section, we explore whether the overall and female-specific effects of school bombings were larger in Swat during the period when the Taliban had substantial control over the district.

As shown in Figure 2, the period of Taliban control of Swat coincided with a dramatic increase in attacks on schools. The first attack in Swat recorded in the GTD occurred September 30, 2007. The attacks picked up the following year, and

the GTD records 28 school attacks in Swat in 2008 and a further 11 attacks between January and May 2009, a total comprising approximately 79.6% of attacks occurring in the district over the entire period of this study. The 2008 figure is considerably larger than the next largest annual figure for any district (20 in Peshawar in 2010). As previously noted, the GTD almost certainly underestimates the total number of attacks because it only includes attacks where an exact time, place, and target can be identified. The extent of under-reporting may have been larger in Swat during this period than in other districts and time periods, as the extent of the Taliban's control of the district and their ongoing conflict with Pakistani military may have affected the flow of information and contributed to under-reporting of school attacks. Other sources claim the true number of school attacks was much higher than is recorded in the GTD (Amin, 2007; Khan, 2012; Yousafzai, 2014).

To test whether Swat was an outlier in terms of school enrolment during the period of Taliban control, we return to the PSLM data. Figure 6 shows the ratio of school enrolment in Swat to that of the remainder of KPK in each year between 2004 and 2016 for boys and girls aged 6-18. There is a substantial decline in girls' enrolment and increase in the gender gap in 2008, the year in which the school bombings peaked. This gap closed the following year, when the Taliban were cleared from the district, and the ratio rose steadily until 2014. The decline in relative enrolment in 2008 was entirely driven by reduced enrolment of girls in Swat, as there is nothing exceptional in 2008 about the enrolment of either girls or boys in KPK (excluding Swat) relative to the whole of Pakistan.[7]

To more formally examine the impact of Taliban control, we rerun our regressions, adding an additional variable, Taliban Control which takes a value of one if the observation is from Swat district and the interview date was between September 2007 (first recorded attack) and June 2009 (the end of Operation Rah-e-Rast),

[7] The KPK/Pakistan enrolment ratio for girls, shown in Figure B1 in Appendix B, is about 1 between 2004 and 2012 and about 1.1 between 2013 and 2015. These figures are about 1.1 and 1.2 for boys. The gender gap in relative enrolment is fairly constant throughout the period of our study.

inclusive. We also add interactions of Taliban Control with gender, the age dummies, and both. The results are shown in Table 4, Figure 7, and Table B4 in Appendix B.

The results in Table 4 show that enrolment rates in Swat district *increased* about 3 to 5 percentage points relative to the country as a whole for children in all age groups in the 30 days prior and subsequent to attacks, although this effect quickly dissipated to zero. The coefficient on Taliban Control * Female is positive and significant in several specifications, indicating that girls in the baseline category (age 6-9) were more likely to be enrolled in school during the period of Taliban control. Although we are unable to identify mechanisms, this is again consistent with reoptimizing behaviour by households in the face of possible future bans on schooling. In these circumstances, substituting earlier education for later education may have been a rational response for some families. Consistent with this explanation, the coefficients on Taliban Control * Age10-14 * Female and especially Taliban Control * Age15-18 * Female are negative, strongly significant, and very large in absolute value. For girls over the age of 10, Taliban control of the district had a large negative effect on probability of enrolment. It can be seen in Table B4 that the other coefficients are almost exactly the same as in Table B2, thus this coefficient reflects a substantially lower enrolment for girls aged 10 and over in Swat during this period. These results imply that, consistent with the evidence in Figure 2, Taliban control of the district led to a sharp increase in gender differences in school enrolment for children aged 10 and over.

The coefficient on the triple interaction of age10-14, gender, and experiencing school attacks in recent months is significantly *positive* in all specifications. However, these coefficients are of relatively small magnitude and decline towards zero further in time from the attacks. Similarly, the coefficient on the triple interaction with age15-18 is positive, but fairly small. From Figure 7, there are several significant marginal effects across groups, but more of these are positive than negative. There is little evidence that school bombings dissuaded attendance beyond the effects of Taliban control of the district. Rather, conditional on Taliban

control, it appears that the net effect of the attacks on enrolment in Swat was close to zero.

Finally, we note that if there is misreporting of school attendance in the data, the likely bias will be to overestimate the effects of attacks on enrolment. If parents became afraid for the safety of their families as a result of Taliban activity, they may have under-reported activities that the Taliban opposed, such as enrolment in schools. This under-reporting would likely have been most prevalent when the Taliban were most active, e.g. following school attacks. As the estimated effects of school bombings are small anyways, we do not consider this potential bias to be particularly important.

VI. Conclusion

This paper examines the impact of the Pakistani Taliban's campaign beginning in 2007 to force girls in Khyber Pakhtunkhwa Province to stop attending school. This campaign was enforced with a combination of attacks on schools and threats to both pupils and teachers. We examine enrolment rates using data from Pakistan Social and Living Standards Measurement. We link these data to a variable for the level of exposure to terrorism based on the timing and the location of terrorist events that we create using the Global Terrorism Database. This linked data is then used to estimate the effects of terrorism on the age-specific enrolment rates of both boys and girls. Our primary measure of exposure to terrorism is the count of incidents within the respondent pupil's residential district over the previous 30, 91, 182, 365 or following 30 days. Additionally, we consider attacks occurring in neighbouring districts as an additional indicator of exposure to terrorism.

Contrary to reports in the popular media, our results indicate that increased exposure to terrorist attacks generally did not reduce enrolment of girls in KPK. The resilience of the populous led to a general failure of the Taliban's regressive anti-education campaign. We generally estimate small and often statistically insignificant effects on the probability of enrolment following school bombings.

This holds across all age groups and also across time windows of 1, 3, 6, and 12 months. We also find no evidence that students were more likely to enrol in madrassas as a result of exposure to the attacks. One year removed from an event, the effect in all cases is negligible, thus the long-run effects on human capital accumulation were miniscule. We are not able to formally identify the mechanisms behind these findings, but we can offer some speculations. Over time schools were rebuilt and fear dissipated. Families may have reoptimized in response to threats of terrorism; with those who did not face an immediate threat being more likely to send their daughters to school in anticipation of a future education ban.

The one exception to this pattern of findings is for the district of Swat during the period between September 2007 and June 2009, when the Taliban had substantial on-the-ground control. The rate of school bombings at this time in Swat was far higher than for any other district at any time in our sample. Moreover, the Taliban's on-the-ground control also enabled them to back school bombings with additional threats of violence against those who defied their edicts. During this period, we find that the gender education gap for children over age 10, and particularly those over age 15, widened sharply. This increase in the gender enrolment gap occurred throughout the period of Taliban control of the district and was not strongly associated with the timing of school bombings.

Figure 1: Location of school bombings in Khyber Pakhtunkhwa, 2007-16

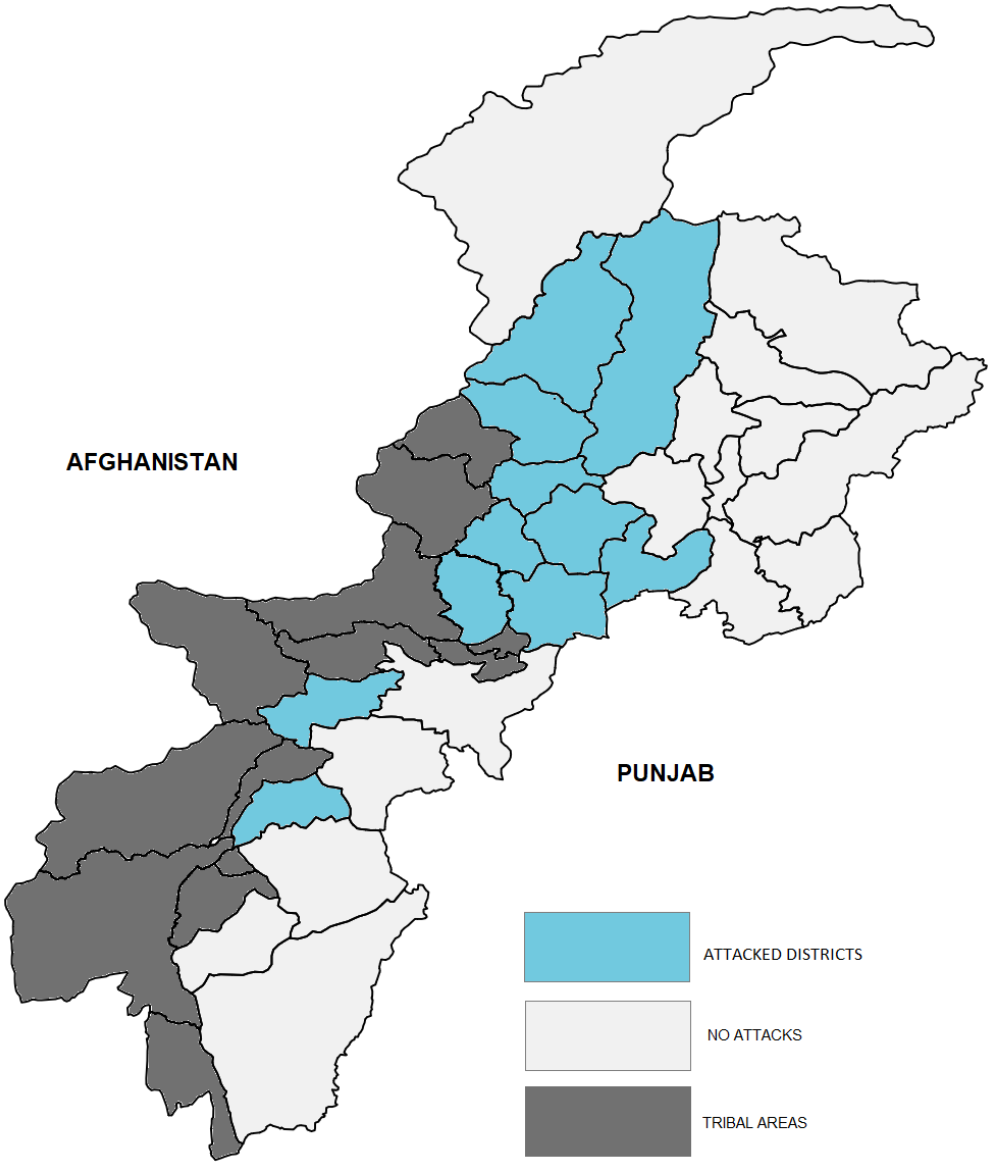

Figure 2: School attacks by year and intensity: Khyber Pakhtunkhwa, 2004-2016

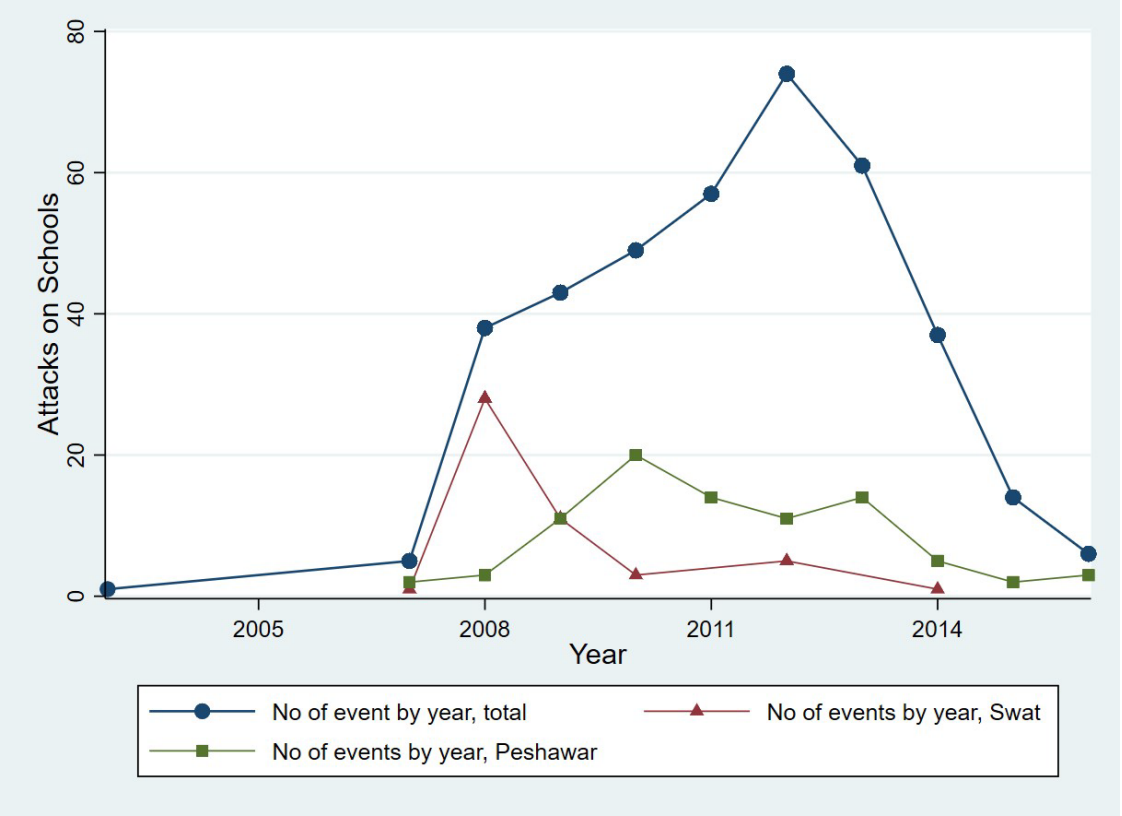

Figure 3: Enrolment rates by age: Khyber Pakhtunkhwa, 2006-07

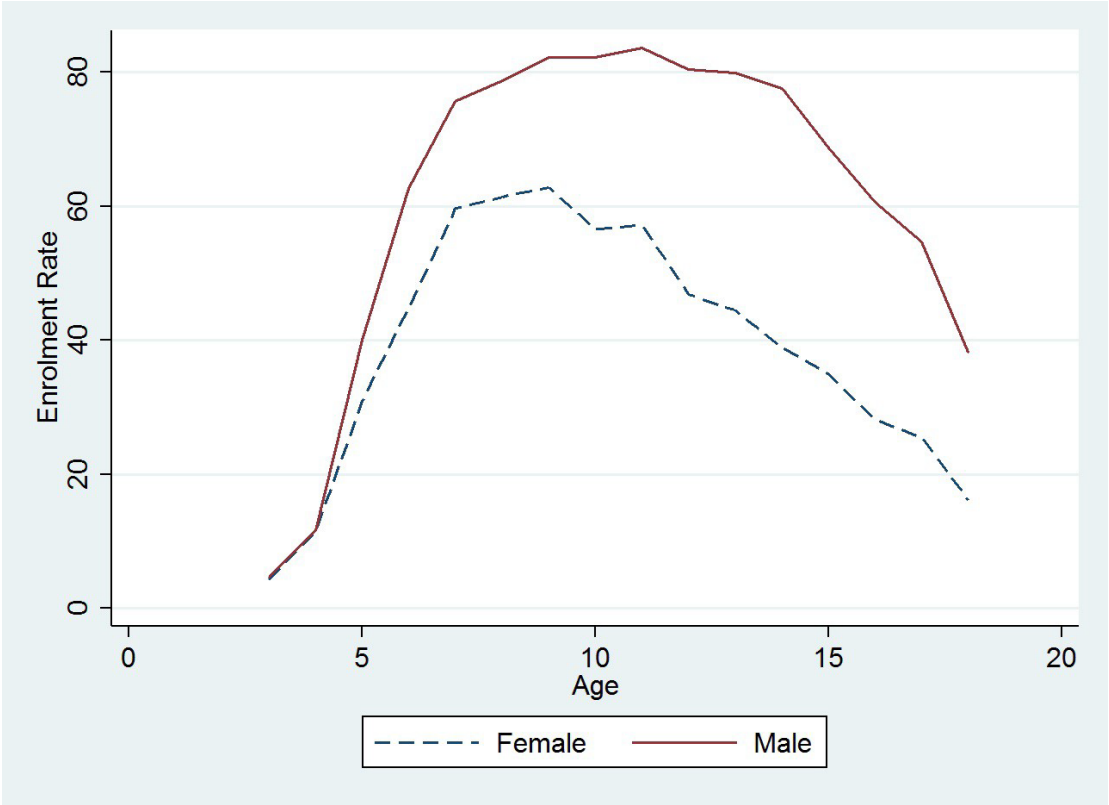

Figure 4: Impact of school bombings on enrolment rates for girls, 2004-16

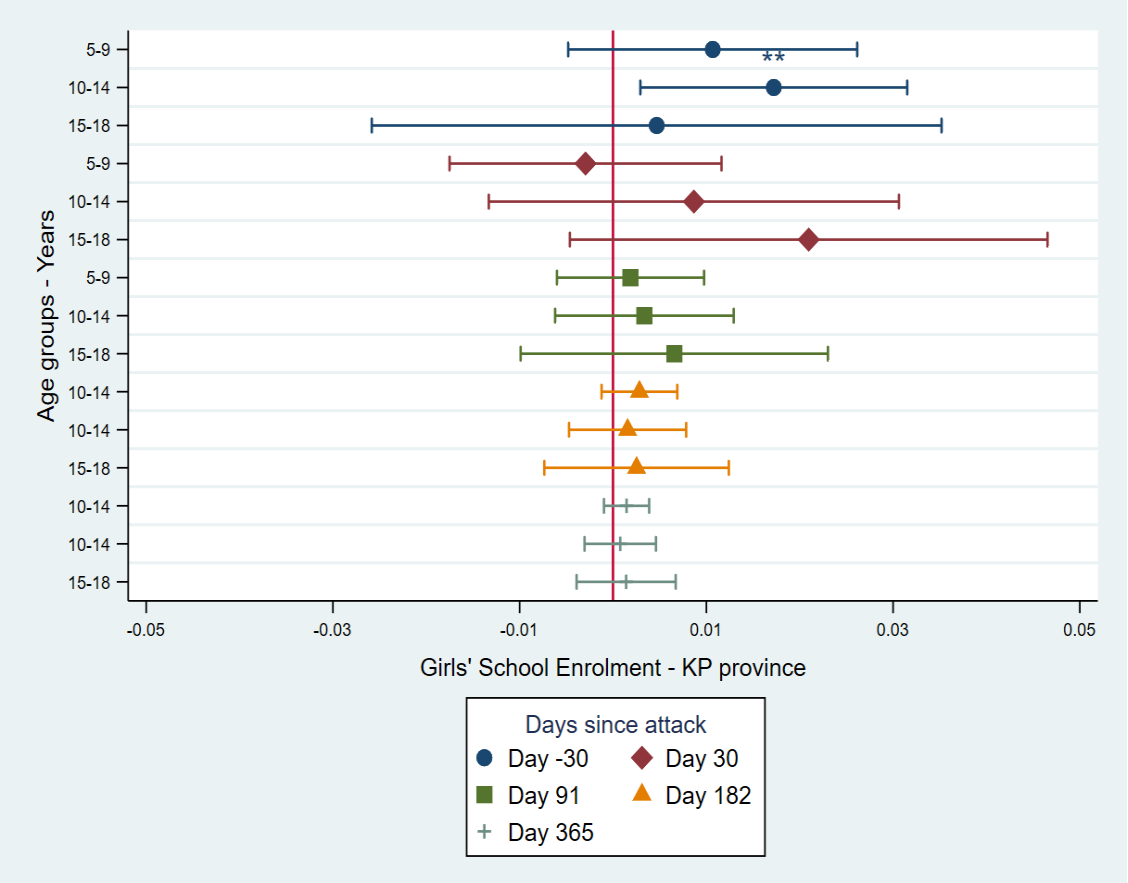

Figure 5: Impact of school bombings on madrassa enrolment for girls, 2004-16

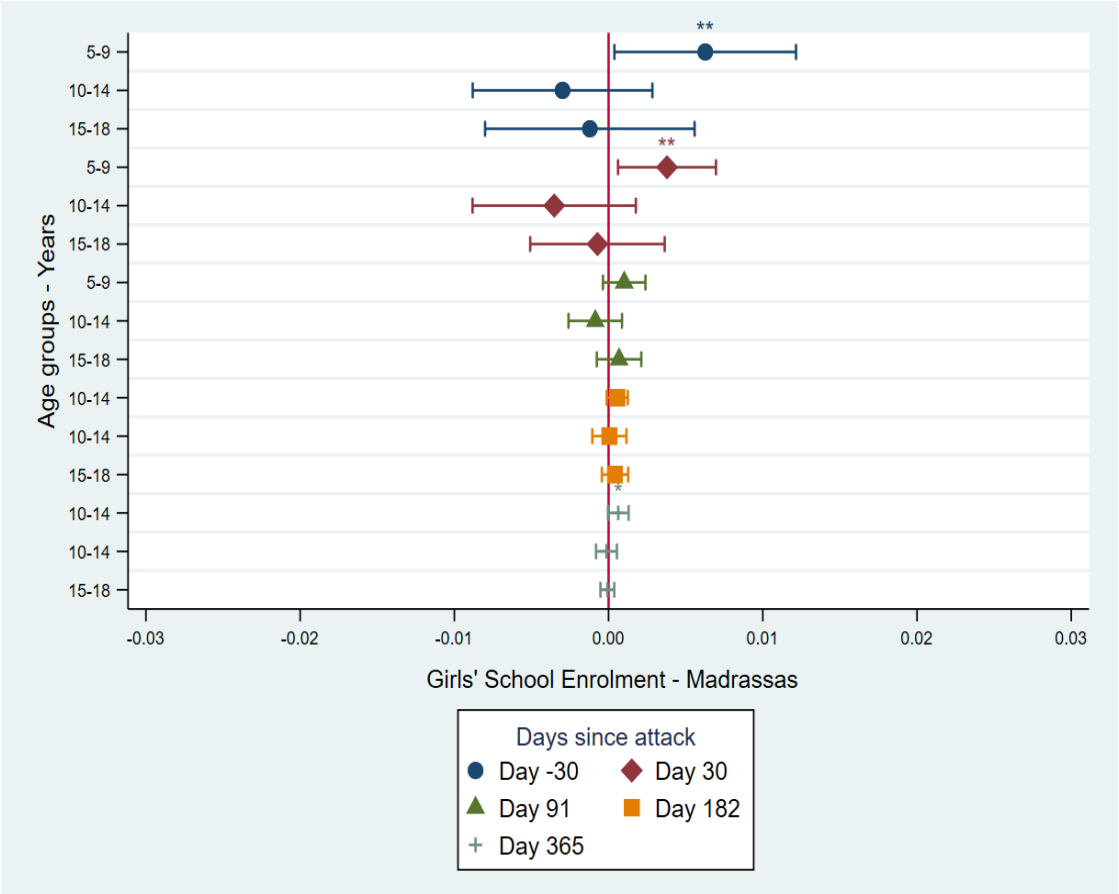

Figure 6: Enrolment ratios (Swat district/KPK) by gender, 2004-16

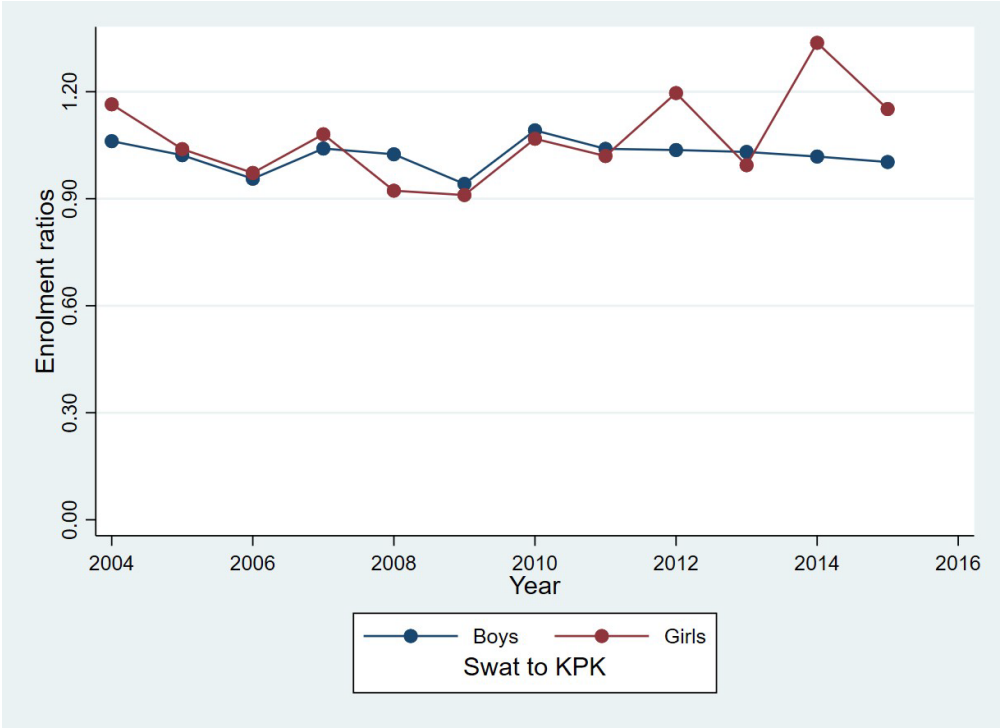

Figure 7: Enrolment for girls: Swat district, 2007-09

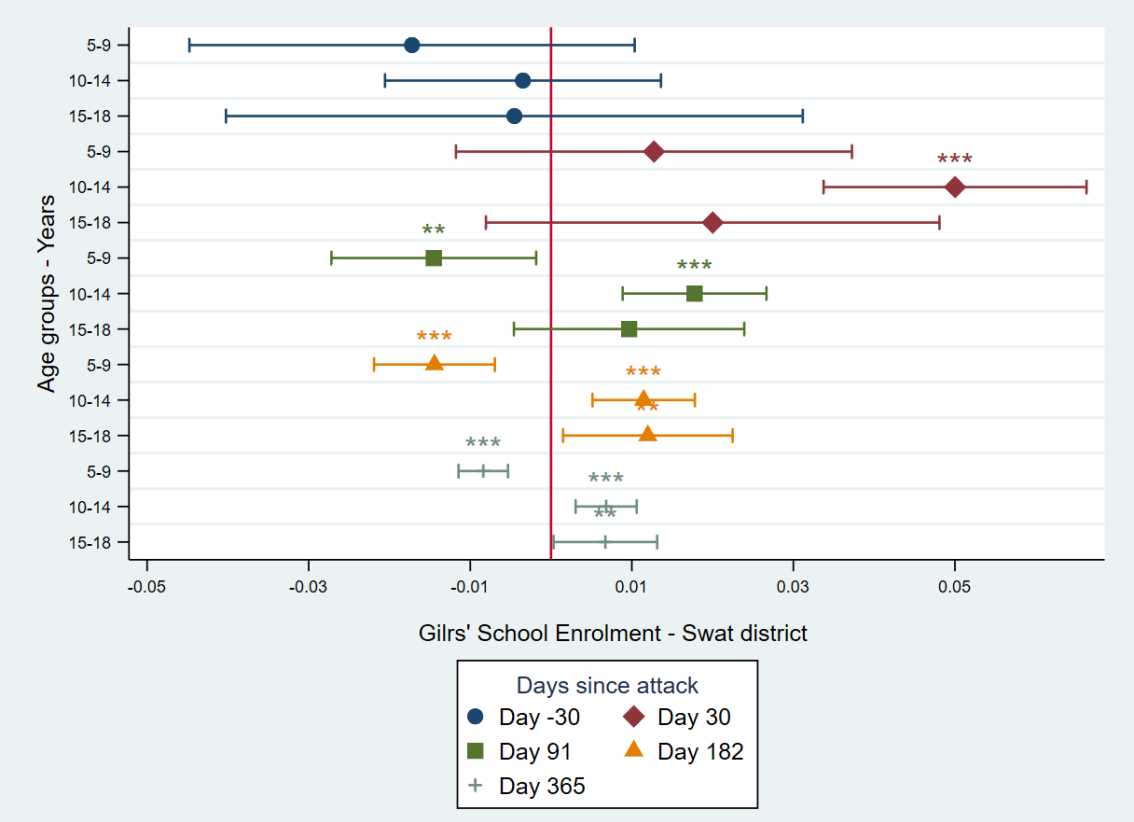

Table 1: Enrolment rates by age group: Pakistan and KPK, 2004–2016

Year	PAK			KPK		
	Ages 5-9	Ages 10-14	Ages 15-18	Ages 5-9	Ages 10-14	Ages 15-18
2004-06	67.0	75.0	45.6	70.3	83.7	55.5
2007-09	70.6	77.9	48.1	73.4	86.4	59.9
2010-14	71.3	78.3	50.4	75.6	88.7	64.6
2014-16	71.2	76.9	47.9	76.2	88.3	63.1

(a) Boys

Year	PAK			KPK		
	Ages 5-9	Ages 10-14	Ages 15-18	Ages 5-9	Ages 10-14	Ages 15-18
2004-06	55.4	54.9	30.3	53.1	50.1	25.2
2007-09	59.3	57.5	32.8	57.5	54.3	30.6
2010-14	60.8	60.1	34.9	61.8	62.6	34.8
2014-16	58.6	56.8	30.6	59.7	59.1	29.3

(b) Girls

Table 2: Event study regressions: all enrolment

School Enrolment	(1) Days -30	(2) Days 30	(3) Days 91	(4) Days 182	(5) Days 365
Female	-0.149***	-0.151***	-0.154***	-0.154***	-0.153***
	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)
Attacks_O	0.003	0.007	0.001	0.001	-0.001
	(0.006)	(0.012)	(0.006)	(0.006)	(0.003)
Age10-14	-0.042***	-0.044***	-0.043***	-0.042***	-0.039***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Age15-18	-0.070***	-0.068***	-0.068***	-0.067***	-0.061***
	(0.014)	(0.014)	(0.015)	(0.014)	(0.014)
Age10-14 * Fem	-0.165***	-0.160***	-0.161***	-0.161***	-0.163***
	(0.011)	(0.010)	(0.011)	(0.011)	(0.011)
Age15-18 * Fem	-0.112***	-0.111***	-0.112***	-0.111***	-0.113***
	(0.018)	(0.017)	(0.017)	(0.017)	(0.018)
Attacks_O * Fem	0.011	-0.003	0.002	0.003	0.001
	(0.008)	(0.007)	(0.004)	(0.002)	(0.001)
Attacks_O * Age10-14	-0.015*	-0.015	-0.008	-0.005	-0.003
	(0.009)	(0.013)	(0.009)	(0.005)	(0.003)
Attacks_O * Age10-14 * Fem	0.017**	0.009	0.003	0.002	0.001
	(0.007)	(0.011)	(0.005)	(0.003)	(0.002)
Attacks_O * Age15-18	-0.006	-0.028*	-0.011	-0.007	-0.004
	(0.014)	(0.017)	(0.010)	(0.006)	(0.003)
Attacks_O * Age15-18 * Fem	0.005	0.021	0.007	0.003	0.001
	(0.016)	(0.013)	(0.008)	(0.005)	(0.003)
Neighbouring districts	✓	✓	✓	✓	✓
Individual/HH controls	✓	✓	✓	✓	✓
District FE	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓
District*Year FE	✓	✓	✓	✓	✓
Observations	208,637	208,637	208,637	208,637	208,637
Pseudo-R^2	0.2330	0.2331	0.2332	0.2332	0.2334

Notes: Robust Standard errors in parentheses are clustered at the district level.
*, **, *** indicates significance at a 10, 5, and 1 percent level.
Results for the full set of control variables are presented in Appendix B, Table B2.

Table 3: Event study regressions: madrassa enrolment

Madrassa Enrolment	(1) Days -30	(2) Days 30	(3) Days 91	(4) Days 182	(5) Days 365
Female	0.000	0.001	0.001	0.001	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Attacks_O	-0.003	-0.004**	-0.001*	-0.001*	-0.001*
	(0.003)	(0.002)	(0.001)	(0.000)	(0.000)
Age10-14	0.002	0.002	0.001	0.001	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Age15-18	0.004*	0.004	0.004	0.004*	0.003
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Age10-14*Fem	0.000	-0.000	-0.000	-0.000	-0.000
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Age15-18*Fem	-0.002	-0.003*	-0.004**	-0.004**	-0.004**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Attacks_O*Fem	0.006**	0.004**	0.001	0.001	0.001*
	(0.003)	(0.002)	(0.001)	(0.000)	(0.000)
Attacks_O*Age10-14	0.002	0.003	0.001	0.000	0.000
	(0.003)	(0.002)	(0.001)	(0.001)	(0.000)
Attacks_O*Age10-14 * Fem	-0.003	-0.004	-0.001	0.000	-0.000
	(0.003)	(0.003)	(0.001)	(0.001)	(0.000)
Attacks_O*Age15-18	0.001	-0.001	0.000	0.000	0.000
	(0.003)	(0.001)	(0.001)	(0.000)	(0.000)
Attacks_O*Age15-18 * Fem	-0.001	-0.001	0.001	0.000	-0.000
	(0.003)	(0.002)	(0.001)	(0.000)	(0.000)
Neighbouring districts	✓	✓	✓	✓	✓
Individual/HH controls	✓	✓	✓	✓	✓
District FE	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓
District*Year FE	✓	✓	✓	✓	✓
Observations	173,560	173,560	173,560	173,560	173,560
Pseudo-R2	0.1051	0.1049	0.1049	0.1049	0.1060

Notes: Robust Standard errors in parentheses are clustered at the district level.
*, **, *** indicates significance at a 10, 5, and 1 percent level.
Results for the full set of control variables are presented in Appendix B, Table B3.

Table 4: Event study regressions: Swat

School Enrolment	(1) Days -30	(2) Days 30	(3) Days 91	(4) Days 182	(5) Days 365
Female	-0.150***	-0.151***	-0.155***	-0.155***	-0.154***
	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)
Taliban control (TC)	0.031***	0.052***	-0.003	-0.024	-0.021
	(0.012)	(0.012)	(0.024)	(0.036)	(0.024)
TC–- Fem	0.036**	0.022	0.103***	0.141***	0.144***
	(0.014)	(0.015)	(0.027)	(0.047)	(0.029)
TC–- Age10-14	0.119***	0.095***	0.149***	0.165***	0.156***
	(0.017)	(0.016)	(0.037)	(0.041)	(0.041)
TC–- Age15-18	0.132***	0.139***	0.193***	0.215***	0.205***
	(0.025)	(0.020)	(0.041)	(0.045)	(0.033)
TC–- Age10-14*Fem	-0.071***	-0.094***	-0.160***	-0.181***	-0.178***
	(0.016)	(0.015)	(0.039)	(0.044)	(0.043)
TC–- Age15-18*Fem	-0.161***	-0.197***	-0.257***	-0.312***	-0.303***
	(0.027)	(0.023)	(0.047)	(0.053)	(0.041)
TC–- Attacks_O*Fem	-0.017	0.013	-0.015**	-0.014***	-0.008***
	(0.014)	(0.013)	(0.006)	(0.004)	(0.002)
TC–- Attacks_O*Age10-14*Fem	-0.003	0.050***	0.018***	0.011***	0.007***
	(0.009)	(0.008)	(0.005)	(0.003)	(0.002)
TC–- Attacks_O*Age15-18*Fem	-0.005	0.020	0.010	0.012**	0.007**
	(0.018)	(0.014)	(0.007)	(0.005)	(0.003)
Neighbouring districts	✓	✓	✓	✓	✓
Individual/HH controls	✓	✓	✓	✓	✓
District FE	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓
District*Year FE	✓	✓	✓	✓	✓
Observations	208,637	208,637	208,637	208,637	208,637
Pseudo-R^2	0.2333	0.2332	0.2334	0.2335	0.2338

Notes: Robust Standard errors in parentheses are clustered at the district level.
*, **, *** indicates significance at a 10, 5, and 1 percent level.
Results for the full set of control variables are presented in Appendix B, Table B4.

Appendix A: Measuring exposure to terror attacks

The PSLM provides the exact survey date for each individual. The GTD provides exact dates for each terrorist attack. We link these dates to construct the variables for number of attacks within a given time window. The variables measuring exposure to terrorism within the different time frames are constructed as follows. For each attack listed in the GTD, we construct the dummy variables $ATTACK_n\_O\_-30$, $ATTACK_n\_O\_30$, $ATTACK_n\_O\_91$, $ATTACK_n\_O\_182$, $ATTACK_n\_O\_365$, $ATTACK1_n\_N\_-30$, … $ATTACK_n\_N\_365$. The lower-case $_n$ denotes the attack number (n = 1, 2, . . . , 384); the upper-case O and N denote whether the specific attack occurred in the district of the observation (O = own district) or in a neighbouring district (N); and Φ=-30, 30, 91, 182, 365 are the time windows.[8] Each variable takes a value of one if the attack occurred in district O or N during the relevant time window. To illustrate, consider the case of an attack in Swat occurring on October 1, 2008, which we denote as $ATTACK_1$. We construct the variables $ATTACK_1\_O\_30$, $ATTACK_1\_O\_91$, etc. $ATTACK_1\_O\_30$ which equal 1 if an observation in the PSLM occurs in Swat between October 2 and October 31, 2008, between October 2, 2008 and January 1, 2009, etc. Similarly, $ATTACK_1$_N_30 which equals 1 on the same dates if the PSLM observation is in a district bordering Swat (Chitral, Dir, Malakand, Buner, Shangla, and Kohistan). Observations outside the relevant dates or districts receive a value of zero. We construct these variables for each of the 384 attacks in GTD data base. An individual's exposure to terrorism *ATTACK_O_30* (or *ATTACK_N_30* or *ATTACK_O_91*, etc.) is the total number of attacks in the relevant number of days prior to the observation in their district of residence (or neighbouring districts), which is the sum of the 384 individual attack variables ($ATTACK_1\_O\_30$ + $ATTACK_2\_O\_30$ + ... + $ATTACK_{384}\_O\_30$).

[8] See the map in Figure 1 for the location of the individual districts. Two districts are considered to be neighbours if they share a common border of any length.

Appendix B: Additional results

Table B1: Definitions, summary statistics, and expected signs of variables

Variable	Description and coding	Mean (s.d.)	Expected sign
Enrolled	Dummy: 1 if currently enrolled in school	0.63 (0.48)	Dep. variable
Religious school	Dummy: 1 if currently enrolled in a madrassa	0.01 (0.10)	Dep. variable
Age	Age in years	11.08 (4.08)	+
Age^2	Age in years squared	139.49 (93.94)	-
Household size	Number of people in the household	10.12 (4.51)	?
Married	Dummy: 1 if currently married	0.02 (0.14)	-
Urban	Dummy: 1 if living in urban area	0.35 (0.48)	+
Father edu	Father's years of education	3.86 (4.80)	+
Mother edu	Mother's years of education	2.44 (5.36)	+
Father's income	Log of father's monthly real income	7.14 (3.68)	+
Mother's income	Log of mother's monthly real income	0.81 (3.94)	+
Female	Dummy: 1 if yes	0.47 (0.50)	-
Attacks	No. attacks in district of residence in current year	6.93 (5.92)	-
Adjacent attacks	No. attacks in districts adjacent to residence in current year	5.8 (3.50)	-
Attacks 30 days	No. attacks in districts of residence in the previous 30 days	0.13 (0.49)	-
Attacks 91 days	No. attacks in districts of residence in the previous 91 days	0.39 (1.18)	-
Attacks 182 days	No. attacks in districts of residence in the previous 182 days	0.80 (2.19)	-
Attacks 365 days	No. attacks in districts of residence in the previous 365 days	1.63 (4.13)	-

Figure B1: Enrolment ratios by gender: KPK to Pakistan sample

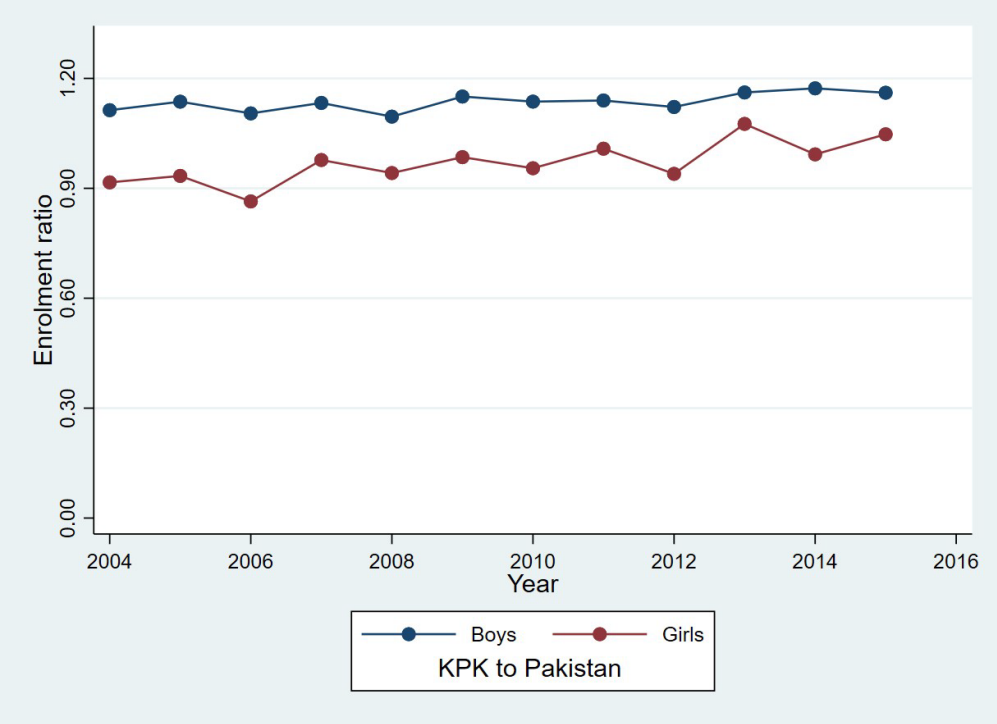

Table B2: Event study regressions: all enrolment–- full regression results

VARIABLES	(1) Days -30	(2) Days 30	(3) Days 91	(4) Days 182	(5) Days 365
Female	-0.149***	-0.151***	-0.154***	-0.154***	-0.153***
	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)
Age	0.213***	0.213***	0.212***	0.213***	0.213***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Age^2	-0.009***	-0.009***	-0.009***	-0.009***	-0.009***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
hHsize	-0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Married	-0.291***	-0.290***	-0.291***	-0.291***	-0.291***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
Urban	0.035***	0.036***	0.036***	0.036***	0.036***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Father edu	0.018***	0.018***	0.018***	0.018***	0.018***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Mother edu	0.016***	0.016***	0.016***	0.016***	0.016***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Father log real income	-0.005***	-0.005***	-0.005***	-0.005***	-0.005***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Mother log real income	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age10-14	-0.042***	-0.044***	-0.043***	-0.042***	-0.039***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Age15-18	-0.070***	-0.068***	-0.068***	-0.067***	-0.061***
	(0.014)	(0.014)	(0.015)	(0.014)	(0.014)
Age10-14*Fem	-0.165***	-0.160***	-0.161***	-0.161***	-0.163***
	(0.011)	(0.010)	(0.011)	(0.011)	(0.011)
Age15-18*Fem	-0.112***	-0.111***	-0.112***	-0.111***	-0.113***
	(0.018)	(0.017)	(0.017)	(0.017)	(0.018)
Attacks_O	0.003	0.007	0.001	0.001	-0.001
	(0.006)	(0.012)	(0.006)	(0.006)	(0.003)
Attacks_O*Fem	0.011	-0.003	0.002	0.003	0.001
	(0.008)	(0.007)	(0.004)	(0.002)	(0.001)
Attacks_O*Age10-14	-0.015*	-0.015	-0.008	-0.005	-0.003
	(0.009)	(0.013)	(0.009)	(0.005)	(0.003)
Attacks_O*Age10-14*Fem	0.017**	0.009	0.003	0.002	0.001
	(0.007)	(0.011)	(0.005)	(0.003)	(0.002)
Attacks_O*Age15-18	-0.006	-0.028*	-0.011	-0.007	-0.004
	(0.014)	(0.017)	(0.010)	(0.006)	(0.003)
Attacks_O*Age15-18*Fem	0.005	0.021	0.007	0.003	0.001
	(0.016)	(0.013)	(0.008)	(0.005)	(0.003)
Attacks_N	-0.009	-0.006	-0.001	-0.000	0.001
	(0.007)	(0.006)	(0.003)	(0.002)	(0.001)
Attacks_N*Fem	0.002	0.008*	0.004**	0.001	0.001

	(0.007)	(0.004)	(0.002)	(0.001)	(0.001)
Attacks_N*Age10-14	0.003	0.008	0.002	0.001	0.000
	(0.003)	(0.008)	(0.003)	(0.001)	(0.001)
Attacks_N*Age10-14*Fem	-0.000	-0.008	-0.002	-0.001	-0.000
	(0.005)	(0.006)	(0.002)	(0.001)	(0.001)
Attacks_N*Age15-18	-0.003	0.001	0.000	0.000	-0.001
	(0.006)	(0.009)	(0.003)	(0.002)	(0.001)
Attacks_N*Age15-18*Fem	-0.003	-0.009	-0.002	-0.001	-0.000
	(0.009)	(0.009)	(0.003)	(0.002)	(0.001)
Observations	208,637	208,637	208,637	208,637	208,637
Pseudo-R^2	0.2330	0.2331	0.2332	0.2332	0.2334

Notes: Robust Standard errors in parentheses are clustered at the district level.
*, **, *** indicates significance at a 10, 5, and 1 percent level.

Table B3: Event study regressions: Madrassa enrolment – full regression results

VARIABLES	(1) Days -30	(2) Days 30	(3) Days 91	(4) Days 182	(5) Days 365
Female	-0.149***	-0.151***	-0.154***	-0.154***	-0.153***
	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)
Age	0.213***	0.213***	0.212***	0.213***	0.213***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Age^2	-0.009***	-0.009***	-0.009***	-0.009***	-0.009***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
hHsize	-0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Married	-0.291***	-0.290***	-0.291***	-0.291***	-0.291***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
Urban	0.035***	0.036***	0.036***	0.036***	0.036***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Father edu	0.018***	0.018***	0.018***	0.018***	0.018***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Mother edu	0.016***	0.016***	0.016***	0.016***	0.016***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Father log real income	-0.005***	-0.005***	-0.005***	-0.005***	-0.005***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Mother log real income	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age10-14	-0.042***	-0.044***	-0.043***	-0.042***	-0.039***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Age15-18	-0.070***	-0.068***	-0.068***	-0.067***	-0.061***
	(0.014)	(0.014)	(0.015)	(0.014)	(0.014)
Age10-14*Fem	-0.165***	-0.160***	-0.161***	-0.161***	-0.163***
	(0.011)	(0.010)	(0.011)	(0.011)	(0.011)
Age15-18*Fem	-0.112***	-0.111***	-0.112***	-0.111***	-0.113***
	(0.018)	(0.017)	(0.017)	(0.017)	(0.018)
Attacks_O	0.003	0.007	0.001	0.001	-0.001
	(0.006)	(0.012)	(0.006)	(0.006)	(0.003)
Attacks_O*Fem	0.011	-0.003	0.002	0.003	0.001
	(0.008)	(0.007)	(0.004)	(0.002)	(0.001)
Attacks_O*Age10-14	-0.015*	-0.015	-0.008	-0.005	-0.003
	(0.009)	(0.013)	(0.009)	(0.005)	(0.003)
Attacks_O*Age10-14*Fem	0.017**	0.009	0.003	0.002	0.001
	(0.007)	(0.011)	(0.005)	(0.003)	(0.002)
Attacks_O*Age15-18	-0.006	-0.028*	-0.011	-0.007	-0.004
	(0.014)	(0.017)	(0.010)	(0.006)	(0.003)
Attacks_O*Age15-18*Fem	0.005	0.021	0.007	0.003	0.001
	(0.016)	(0.013)	(0.008)	(0.005)	(0.003)

Attacks_N	-0.009	-0.006	-0.001	-0.000	0.001
	(0.007)	(0.006)	(0.003)	(0.002)	(0.001)
Attacks_N*Fem	0.002	0.008*	0.004**	0.001	0.001
	(0.007)	(0.004)	(0.002)	(0.001)	(0.001)
Attacks_N*Age10-14	0.003	0.008	0.002	0.001	0.000
	(0.003)	(0.008)	(0.003)	(0.001)	(0.001)
Attacks_N*Age10-14*Fem	-0.000	-0.008	-0.002	-0.001	-0.000
	(0.005)	(0.006)	(0.002)	(0.001)	(0.001)
Attacks_N*Age15-18	-0.003	0.001	0.000	0.000	-0.001
	(0.006)	(0.009)	(0.003)	(0.002)	(0.001)
Attacks_N*Age15-18*Fem	-0.003	-0.009	-0.002	-0.001	-0.000
	(0.009)	(0.009)	(0.003)	(0.002)	(0.001)
Observations	173,560	173,560	173,560	173,560	173,560
Pseudo-R^2	0.1051	0.1049	0.1049	0.1049	0.1060

Notes: Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table B4: Event study regressions: Swat district – full regression results

VARIABLES	(1) Day -30	(2) Day 30	(3) Day 91	(4) Day 182	(5) Day 365
Female	-0.150***	-0.151***	-0.155***	-0.155***	-0.154***
	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)
Age	0.213***	0.213***	0.213***	0.213***	0.213***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Age^2	-0.009***	-0.009***	-0.009***	-0.009***	-0.009***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
hHsize	-0.000	0.000	-0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Married	-0.291***	-0.290***	-0.291***	-0.291***	-0.291***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
Urban	0.035***	0.035***	0.035***	0.035***	0.035***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Father edu	0.018***	0.018***	0.018***	0.018***	0.018***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Mother edu	0.016***	0.016***	0.016***	0.016***	0.016***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Father log real income	-0.005***	-0.005***	-0.005***	-0.005***	-0.005***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Mother log real income	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Taliban control (TC)	0.031***	0.052***	-0.003	-0.024	-0.021
	(0.012)	(0.012)	(0.024)	(0.036)	(0.024)
Age10-14	-0.042***	-0.045***	-0.043***	-0.042***	-0.039***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Age15-18	-0.070***	-0.069***	-0.067***	-0.066***	-0.061***
	(0.014)	(0.014)	(0.015)	(0.014)	(0.014)
Age10-14*Fem	-0.165***	-0.160***	-0.161***	-0.160***	-0.162***
	(0.011)	(0.010)	(0.011)	(0.011)	(0.011)
Age15-18*Fem	-0.111***	-0.110***	-0.111***	-0.110***	-0.112***
	(0.018)	(0.017)	(0.017)	(0.017)	(0.018)
TC–- Fem	0.036**	0.022	0.103***	0.141***	0.144***
	(0.014)	(0.015)	(0.027)	(0.047)	(0.029)
TC–- Age10*Fem	-0.071***	-0.094***	-0.160***	-0.181***	-0.178***
	(0.016)	(0.015)	(0.039)	(0.044)	(0.043)
TC–- Age15*Fem	-0.161***	-0.197***	-0.257***	-0.312***	-0.303***
	(0.027)	(0.023)	(0.047)	(0.053)	(0.041)
TC–- Age10	0.119***	0.095***	0.149***	0.165***	0.156***
	(0.017)	(0.016)	(0.037)	(0.041)	(0.041)
TC–- Age15	0.132***	0.139***	0.193***	0.215***	0.205***
	(0.025)	(0.020)	(0.041)	(0.045)	(0.033)
Attacks_O	0.006	0.007	0.004	0.004	0.000
	(0.006)	(0.012)	(0.005)	(0.005)	(0.002)
Attacks_O*Fem	0.014	-0.005	0.003	0.005	0.003
	(0.011)	(0.008)	(0.006)	(0.003)	(0.002)
TC–- Attacks_O*Fem	-0.017	0.013	-0.015**	-0.014***	-0.008***

	(0.014)	(0.013)	(0.006)	(0.004)	(0.002)
Attacks_O*Age10-14	-0.023***	-0.018	-0.013**	-0.008**	-0.005**
	(0.008)	(0.011)	(0.006)	(0.004)	(0.002)
Attacks_O*Age10-14*Fem	0.021***	0.007	0.003	0.001	0.001
	(0.007)	(0.012)	(0.006)	(0.004)	(0.003)
Attacks_O*Age15-18	-0.014	-0.033**	-0.017**	-0.011**	-0.006***
	(0.011)	(0.014)	(0.008)	(0.004)	(0.002)
Attacks_O*Age15-18*Fem	0.013	0.025**	0.011	0.004	0.002
	(0.015)	(0.012)	(0.007)	(0.005)	(0.003)
TC–- Attacks_O*Age10-14*Fem	-0.003	0.050***	0.018***	0.011***	0.007***
	(0.009)	(0.008)	(0.005)	(0.003)	(0.002)
TC–- Attacks_O*Age15-18*Fem	-0.005	0.020	0.010	0.012**	0.007**
	(0.018)	(0.014)	(0.007)	(0.005)	(0.003)
Attacks_N	-0.009	-0.006	-0.001	-0.000	0.001
	(0.007)	(0.006)	(0.003)	(0.002)	(0.001)
Attacks_N*Fem	0.001	0.008*	0.004**	0.001	0.000
	(0.008)	(0.004)	(0.002)	(0.001)	(0.001)
Attacks_N*Age10-14	0.004	0.008	0.003	0.002	0.000
	(0.003)	(0.008)	(0.002)	(0.001)	(0.001)
Attacks_N*Age10-14*Fem	-0.000	-0.008	-0.002	-0.001	-0.000
	(0.005)	(0.006)	(0.002)	(0.001)	(0.001)
Attacks_N*Age15-18	-0.002	0.002	0.001	0.001	-0.001
	(0.006)	(0.009)	(0.003)	(0.002)	(0.001)
Attacks_N*Age15-18*Fem	-0.004	-0.010	-0.003	-0.001	-0.000
	(0.009)	(0.009)	(0.003)	(0.002)	(0.001)
Observations	208,637	208,637	208,637	208,637	208,637
Pseudo-R^2	0.2333	0.2332	0.2334	0.2335	0.2338

Notes: Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0

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