

A Literature Review on the Impacts of Armed Conflicts on Human Development

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Abstract

This paper reviews the literature for both the short-term and long-term effects of armed conflicts on human development. We identify the negative effects of exposure to armed conflicts on child health in the short run, and prospective earnings, educational attainment, labor productivity in the long run. The findings call for quick and effective actions to minimize the negative consequences of armed conflicts in both the short run and long run.

Introduction

Conflicts have terrible implications for a country, including death, relocation, destruction of physical capital and public infrastructure, and a slowdown in economic growth. Evidence from macro-level studies suggests that the economy will quickly recover. The direct and indirect consequences of these occurrences on human dimensions, on the other hand, maybe more long-lasting and catastrophic than the physical consequences. On the one hand, conflicts can directly affect homes through the loss of loved ones, changes in family structure, and resource deprivation. Physical destruction caused by these conflicts, on the other hand, might impose indirect long-term consequences on survivors.

Given the age-specific nature of many human capital investments, children may be disproportionately harmed by the destruction of physical capital and deterioration of economic means among survivors. For example, wars and the resulting physical destruction can disrupt

children's education by destroying schools, removing teachers, and changing family structures and household income. Famines, hunger, infectious disease epidemics, post-war trauma, and the devastation of health infrastructure can all wreak havoc on children's health. Given the well-documented empirical evidence on the relationship between human capital and earnings, physical capital degradation may have long-term consequences for children through their future labor market performance.

Method

This research looked at the evidence for both the short-term and long-term effects of conflicts on human development. From January 1, 2000, to the date of the search, searches were conducted in the Web of Science database. Our review's goal was to summarize published research on war's long-term impacts. Multiple variations of "short-run effects", "long-run effects", and "armed conflict" were used as search phrases. Additional studies were found through hand searching. The authors used Covidence, an electronic organizing tool for systematic reviews, to conduct screening and full-text reviews for all articles. The research population, the setting of a historical or present armed conflict or a region, and the study population's exposure to the armed conflict were all considered. Mental and behavioral health studies were not included unless they also included information on physical health or child development.

Based on the data source, study population, sampling technique, data collecting, and analysis methodologies, and any particular characteristics of the population, the risk of bias was assessed at the study outcome levels for each individual study. Studies with questionable or flawed methodology were disqualified. Studies from single facilities, studies employing only facility-based data, and case reports were included due to the difficulties in acquiring data in conflict

settings. Time period, study country and sub-region, identified conflict, study design, reference population, type of exposure, health outcomes, access to basic needs, mortality, and associations between exposures and outcomes were all abstracted onto a data extraction form from studies that met the inclusion criteria. Data on protective and mitigating factors on child health outcomes were abstracted where available. For missing data, authors were contacted whenever possible. In the event of questions or disagreements, the reviewers reached an agreement.

Results and Discussion

Long-run Impacts - The Allied bombardment of Japanese cities during World War II, according to Davis and Weinstein (2002), was one of the most dramatic shocks to relative city sizes the world has ever seen. They discover that there was an incredibly robust recovery in the aftermath of the disaster. In around fifteen years, most cities recovered to their relative position in the distribution of city sizes. The random growth theory, which expects no regression to the past route, is particularly vulnerable to this. According to the increasing returns theory, however enticing the theoretical prospect of spatial catastrophes may be, the distribution of city sizes appears to be highly resilient to transient shocks of any scale in practice. Finally, the return to the previous growth path appears to offer significant support for a locational fundamentals theory.

Brakman, Garretsen, and Schramm (2004) use a one-of-a-kind data set to investigate whether a major transitory shock has an effect on German city growth and size distribution. They use the strategic bombardment of German cities during WWII as an example of such a shock, based on recent work by Davis and Weinstein (2001) on Japan. The purpose of this research is to look at the influence of this shock on German city growth and the size distribution that results. If city expansion follows a random path, this implies that the war shock had a long-term impact on

German urbanization. However, if the random walk hypothesis is not validated, as the second group of hypotheses predicts, it will suggest that the war shock had only a transient impact on the city-building process. The researchers discovered that city expansion in western Germany did not follow a random path, whereas city growth in eastern Germany did. This result is most likely the result of different postwar economic systems.

Miguel and Roland (2005) look into the effects of the US bombing on Vietnam's later economic development. The Vietnam War was marked by the most extensive bombing campaign in military history, as well as enormous humanitarian consequences. They examine whether the war's damage resulted in enduring local poverty traps using a unique US military dataset that includes bombing intensity at the district level (N = 584). They employ an instrumental variable technique to compare the heavily bombarded districts to other districts, controlling for district demographic and geographic features and relying on the distance to the 17th parallel demilitarized zone. Through 2002, the US bombing has had no adverse effects on local poverty rates, consumption levels, infrastructure, literacy, or population density. This research suggests that even the most intensive bombing in human history in Vietnam did not result in local poverty traps.

De Walque and Verwimp (2010) investigate the demographic repercussions of the Rwandan genocide and how the conflict's excess mortality was distributed throughout the population. Adult males were the most likely to die, according to data from the 2000 Demographic and Health Survey. Although there were more deaths overall, adult males were the most likely to die. The data also reveal that persons with an urban or more educated background were more likely to die, using the characteristics of the survey respondent as a proxy for the socio-economic status of the victims' families. The loss of human capital in the country is a long-term consequence of the genocide, compounding the human tragedies.

In Colombia, where the majority of coca leaf is presently gathered, Angrist and Kugler (2008) investigate the effects of an exogenous increase in coca pricing and cultivation. In rural areas, this shift resulted in relatively minor economic improvements, notably in the form of increased self-employment wages and an increase in the labor supply of teenage boys. Rural areas that saw increased coca production became far more violent as a result, while metropolitan areas were largely unaffected. These findings support the theory that the Colombian civil war is motivated by the financial opportunities provided by coca, and that combatants' rent-seeking restricts the economic rewards from coca.

Shemyakina (2006) investigates the impact of violent conflict on educational attainment in Tajikistan using disparities in geographical and temporal exposure to the 1992–1998 armed conflict. Within a conceptual framework that adjusts for crucial individual, household, and community factors, data on historical damage to a household's houses from the 1999 Tajik Living Standards Survey, as well as data on occurrences during the conflict, are employed. Girls who were in school during the crisis and lived in conflict-affected areas were less likely to complete their compulsory education than girls of the same age who lived in conflict-free areas. The findings also show that being exposed to violent conflict has a strong and statistically significant detrimental impact on girls enrolling. There was no influence of regional and household conflict exposure on boys' education. The findings are unaffected by community and household fixed effects, violent selection, or migration.

Le and Nguyen (2020) show that the Allied bombing of Vietnam, the world's longest and most powerful aerial bombardment, had negative consequences on school-age students' educational achievement and subsequent labor market results. They find that an increase in bomb intensity leads to significantly fewer educational years completed and lower future earnings for school-age

children exposed to the bombardment, using a difference-in-differences framework to exploit the plausible exogenous district-by-cohort variation in bomb destruction. They also indicate that both supply-side (inadequate school security and a shortage of teachers) and demand-side (residential casualties, limited access to healthcare, damaged buildings, and greater reliance on welfare assistance) variables could be driving the long-term effects of aerial bombing. The findings emphasize the relevance of conflict prevention and post-war reconstruction in achieving long-term development goals.

According to Ichino & Winter-Ebmer (2004), Austrian and German children who were 10 years old at the time of the War, or who were more directly involved through their parents, received less education than children from non-war nations such as Switzerland and Sweden. They also demonstrate that these individuals lost a significant amount of money 40 years after the war, which can be ascribed to the war's educational losses. The implication in terms of lost gross domestic product is calculated.

Short-run Impacts - Feldman et al. (2013) looked studied stress biomarkers in young children who had been exposed to conflict, as well as maternal and child characteristics that could influence the children's stress response. There were 232 Israeli children aged 1.5 to 5 years who took part in the study, with 148 of them having been exposed to continuous fighting. Similarly, 56 people were diagnosed with PTSD and 92 people were classified as exposed-no-PTSD. At baseline, after the challenge, and after recovery, child cortisol (CT) and salivary alpha-amylase (sAA), indicators of the hypothalamic-pituitary-adrenal and sympathetic-adrenal-medullary arms of the stress response, were assessed. Children's negative emotionality and regulation techniques, as well as maternal CT and sAA, PTSD symptoms, and reciprocal parenting, were also evaluated. There were differences between war-exposed children and controls, but they were related to the severity of the

child's PTSD. Children with PTSD had consistently low CT and sAA, while children who had never been exposed to PTSD had consistently high CT and sAA, and controls had an increase in CT after a challenge and a drop upon recovery, as well as low sAA. Exposed children had higher levels of negative emotionality; yet, whereas children without PTSD utilized comfort-seeking methods, children with PTSD used withdrawal tactics. Maternal CT, PTSD symptoms, low reciprocity, and negative emotionality were all found to be predictors of child CT. The findings show that in the context of early trauma, increased physiological arousal mixed with approach methods may be associated with greater resilience.

Momeni and Aminjavaheri (1994) looked at a group of 14 children and teenagers who had been exposed to mustard gas. Blood cell counts, hemoglobin, hematocrit, urine analysis, and other laboratory procedures were performed. The most common problems were face involvement (78%) and vaginal (42%) lesions, as well as trunkal and axillar lesions (both 14 percent). In 12% of the patients, eosinophilia was the most common laboratory abnormality. Lesions on the skin appeared 4–18 hours after exposure. Within 20–30 hours of exposure, erythema appeared, followed by blisters. In adolescents and teenagers, the time it took for symptoms to appear was shorter, and the severity of the lesions was greater than in adults. Both of these occurrences could be related to the young patients' more sensitive skin. In this category, genital symptoms were less common, while ocular, pulmonary, and gastrointestinal diseases were more common in children than in adults. The tragic consequences of being exposed to such chemicals highlight the importance of international accords that effectively prohibit the use of chemical weapons.

The influence of the 2002–2007 armed war in Côte d'Ivoire on children's height-for-age z-scores was quantified by Minoiu & Shemyakina (2014). Children aged 6–60 months who lived in conflict-affected areas faced severe health setbacks, according to the findings, compared to those

who resided in less-affected areas. They also found that conflict-induced economic stress, health stress, and other stress have a big and detrimental effect on child health in conflict-affected regions, using a wide set of household-level factors on the experience of war.

In the Democratic Republic of the Congo, Le (2021) explores the impact of armed violence on the weight of young children. They detect adverse effects of conflict exposure on child weight by utilizing the variation in exposure to armed conflict across districts and the within-district variation in the timing of whether the child was exposed to armed conflict due to birth timing within a difference-in-differences framework. Armed violence causes youngsters to weigh 0.20 and 0.24 standard deviations less for their age and height, respectively, when they are exposed to it. Armed conflict also raises the likelihood of underweight and wasted children by 4.7 and 2.7 percentage points, respectively. Children from disadvantaged circumstances, such as those born to low-educated mothers, poor mothers, and rural mothers, are disproportionately affected, according to their heterogeneity studies.

For 53 developing countries that have experienced violence in the last three decades (1990–2018), Le & Nguyen (2020) study the hidden but ongoing cost of conflict on birth weight outcomes. They discover that intrauterine exposure to armed conflict in the first trimester of pregnancy reduces a child's weight at birth by 2.8 percent and enhances the incidence of low birth weight by 3.2 percentage points, despite variance among districts and conception months-years. Infants born to low-income and uneducated mothers are more sensitive to the negative effects of armed conflict.

According to Wagner et al. (2018), a child born within 50 km of an armed conflict has a 5.2 per 1000 births higher chance of dying before reaching the age of one year than a kid born in the same region during non-conflict periods. The increased chance of dying varied from a 3.0% rise in armed conflicts with one to four deaths to a 26.7 percent increase in armed conflicts with over 1000

deaths. They found evidence of increased mortality risk up to 100 kilometers away and for up to 8 years after armed conflicts, with a cumulative rise in newborn mortality two to four times greater than the contemporaneous increase.