

Armed conflicts and their effects on women and children



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Outline

- Education
- Child Health
- Labor Market Participation
- Attitudes towards and experiences of domestic violence

Approach

- Economic studies:
 - Human capital model
 - Test for an investment in child's human capital under an exogenous shock
 - Difference in differences approach – regression analysis:
 - Regional
 - Cohort level exposure to conflict
- Population data:
 - large datasets, typically cross-sectional data on households and individuals
- Conflict data:
 - common or idiosyncratic exposure to shocks

Education effects - summary

- *Quantity* of education:
 - Educational attainment declines:
 - Grades completed and enrollment
 - The magnitude of the loss and the relative impact on **girls vs boys** depends on contextual factors
 - Different levels of development/ educational systems
- *Quality* of education
 - Violence impacts school resources
 - Test scores decline more in areas close to places of violence

Education effects - children

- ❑ A decline in educational attainment for **girls** from affected cohorts and families/communities
- ❑ Potential explanations
 - In the conflict affected areas, families may seek to protect their **girls** from rape and other threats to their honor (civil war in Tajikistan (Shemyakina 2011); the insurgency in Punjab, India (Singh and Shemyakina 2016)).
- ❑ Under an economic distress, investment in boys is a more stable strategy
 - Reductions in educational expenditures for affected families (substitution of educational expenditure towards boys at the expense of **girls** in the face of uncertainty (Singh and Shemyakina 2016))

Education effects - children

- Greater negative impacts for **boys**:
 - Military enlistment for adolescent boys
 - Bosnia and Herzegovina (Swee 2015)
 - They could be *sent out to work* to help the household cope with the conflict-induced shock.
 - greater dropout of kids age 6-17 and employment of adolescent **boys in** Colombia (Rodriguez and Sanchez 2012)
 - Timor Leste's anti-colonial struggle (Justino et al. 2015)
 - In the situations, where **girls** already had low schooling during the pre-conflict period
 - 1994 genocide in Rwanda (Akresh and de Walque 2010)
 - Khmer Rouge period in Cambodia (de Walque 2006)
 - Burundi (Verwimp and van Bavel 2015)

Education effects - children

- 1996-2006 Maoist insurgency in Nepal: an *increase* in **female** educational attainment was linked to the Maoists' efforts to remove educational barriers for the disadvantaged groups of population (Valente 2014).
 - Women were actively present within structures of Maoist organizations; participated in politics and were viewed as important to the spread of Maoist propaganda as they had access to other members of the household (Ariño 2008).
 - Thus, the engagement of women and the goals of the Maoists, argues Valente, may have contributed to an increased educational attainment during the conflict, and especially by girls in the Maoist controlled districts.

Education effects: wealth explains a lot

- Verwimp & van Bavel (2015) evaluate the impact of the 1993-2000 war in Burundi and the 1993-1994 massacres on the educational attainment of boys and girls who were of primary school age at the time, using individual and household survey data collected in 2002.
 - The negative effect of conflict on education is significantly **more pronounced** for **boys** (but not girls) from **non-poor** households – reducing the gender gap in schooling.
 - In **pre-war poor** households, educational attainment of both, **boys** and **girls** declined.
 - Further, the *negative effect of displacement* on education is particularly **strong** for children who had to **move multiple times**, especially these from **poor** households.

Education & quality of schooling

- District-level fatalities - the 2nd Intifada in Palestine:
 - In both the West Bank and the Gaza Strip, *the chance to pass the secondary school final exam was lower* in school districts with higher fatality levels. In the West Bank, the observed effect is stronger for *boys* than *girls* (Brück et al. 2013).
- In Turkey, low intensity Kurdish-Turkish conflict
 - Is linked to substantially lower test scores in the affected regions
 - An inability to attract & retain good teachers by these regions is one of the channels through which this conflict has affected educational outcomes (Kibris 2013)
- Brazilian favelas and drug related crime and students' test scores
 - The closer the school's location is to violent events, the lower are the test scores.
 - Local violence by drug gangs has a large negative impact (short-term) on school resources (turnover of principals, teacher absenteeism and school closures) (Monteiro and Rocha 2014)

Health effects - children

- ❑ Overall negative impacts on health, measured by height for age z-scores
- ❑ Civil war and crop failure in Burundi
 - (Bundervoet, Verwimp & Akresh 2009):
 - An extra month of war exposure decreases children's height-for-age z-score by 0.047 st.d. compared to non-exposed children
- ❑ Armed Conflict:
 - Rwanda (Akresh, Verwimp & Bundervoet 2011); Eritrean-Ethiopian conflict (Akresh, Lucchetti & Thirumurthy 2012); Cote d'Ivoire (Minoiu and Shemyakina 2014); Zimbabwe (Shemyakina 2014)

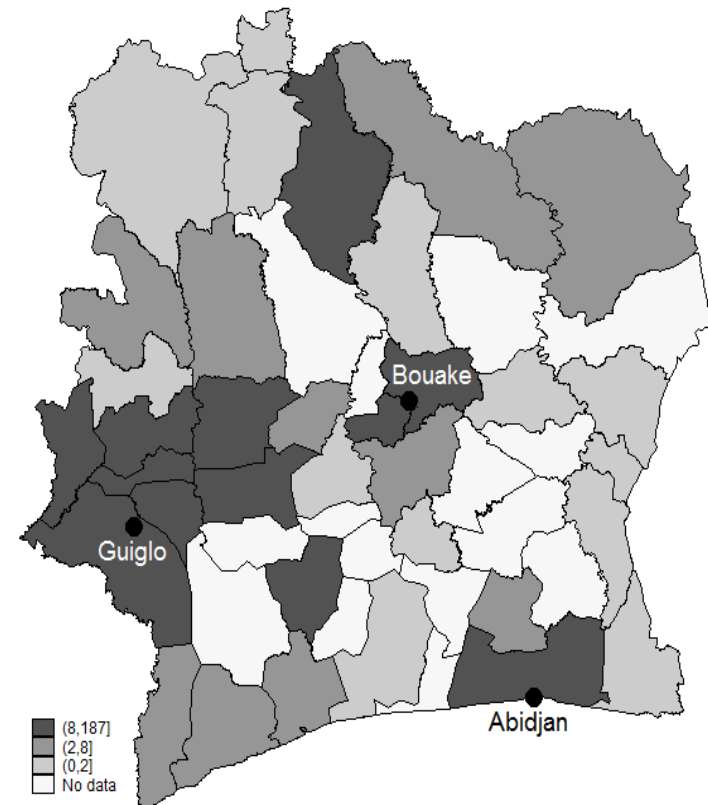
Minoiu and Shemyakina (2015)

- ❑ Use the 2002-2007 conflict in Côte d'Ivoire as a quasi experiment to analyze the impact of the conflict on children's health
 - ❑ Measured by height-for-age z-scores (HAZ)

- ❑ Explore conflict impact mechanisms
 - Common shocks: province-level
 - Idiosyncratic: household-level victimization
 - ❑ Rich data on households' experiences during the 2002-2007 conflict from the 2008 survey

 - Compare the effect of the idiosyncratic shock when the common shock is also present

Côte d'Ivoire and ACLED data



Shaded areas represent conflict regions. Darker shades indicate a greater number of conflict events reported in the ACLED dataset. In the legend, the “No data” category stands for no reported incidents in the dataset and is treated as zero exposure to conflict in the analysis. The category (8, 187] includes 12 provinces, some of which had relatively low-intensity conflict (between 10 and 30 events) and some with relatively high-intensity conflict, such as Abidjan in the south (187 events), Bouaké in the center (62 events), and the province of Guiglo in the west (48 events).

Baseline Empirical Specification

$$\text{HAZ}_{ijt} = \alpha_j + \delta_t + \lambda_{jt} + \beta_1 (\text{Conflict Region}_j * \text{War Cohort}_t) + \varepsilon_{ijt}$$

- Where HAZ_{ijt} is the height-for-age z-score for child i in province j born in year t ; α_j are province-of-birth fixed effects, δ_t are birth-cohort fixed effects, λ_{jt} are province-specific trends in cohort health.
- The coefficient estimate for β_1 captures the impact of conflict on the health of children born between September 2002 and December 2007 (“War Cohort”) and thus exposed to the conflict either in infancy or *in utero*.
- Allow for gender-specific impact through interaction with “Female”
- Controls:
 - Child: ethnicity and religion
 - Household head: age, education, gender
 - Mother: age, education

Baseline with Controls

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Conflict region*War Cohort	-0.344**	-0.440**					-0.367**	-0.476***				
	(0.144)	(0.156)					(0.135)	(0.145)				
Conflict region*War Cohort*Female							-0.027	-0.046				
							(0.106)	(0.114)				
Conflict region*Exposure 0-24 months			-0.292	-0.378*					-0.481**	-0.570**		
			(0.170)	(0.193)					(0.190)	(0.212)		
Conflict region*Exposure at least 25 months			-0.360**	-0.459**					-0.350**	-0.481**		
			(0.158)	(0.165)					(0.161)	(0.167)		
Conflict region*Exposure 0-24 months*Female									0.312**	0.277*		
									(0.145)	(0.146)		
Conflict region*Exposure at least 25 months*Female									-0.094	-0.072		
									(0.083)	(0.090)		
Conflict region*Exposure (no. of months)					-0.008**	-0.011**					-0.008**	-0.012***
					(0.004)	(0.004)					(0.004)	(0.004)
Conflict region*Exposure (no. of months)*Female											-0.001	-0.001
											(0.002)	(0.002)
Province-specific trends	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Child controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Household head controls	yes	no	yes	no	yes	no	yes	no	yes	no	yes	no
Mother controls	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes
<i>p-value F-test of zero effect of:</i>												
Child ethnicity	0.246	0.643	0.246	0.643	0.246	0.643	0.225	0.626	0.225	0.626	0.225	0.626
Child religion	0.041	0.213	0.041	0.213	0.041	0.213	0.042	0.203	0.042	0.203	0.042	0.203
Household head's characteristics	0.033		0.033		0.033		0.032		0.033		0.032	
Mother's characteristics		0.213		0.000		0.000		0.000		0.000		0.000
Observations	13,664	12,132	13,664	12,132	13,664	12,132	13,664	12,132	13,664	12,132	13,664	12,132
R-squared	0.083	0.102	0.083	0.102	0.083	0.102	0.083	0.103	0.083	0.103	0.083	0.103

Robust standard errors in parentheses, clustered at the province level. * significant at 10%; ** significant at 5%; *** significant at 1%. The dependent variable is the height-for-age z-score. All regressions include province fixed effects, month-of-birth fixed effects, and province-specific time trends. In columns 2, 4, 6 the coefficient estimates on interactions between 'Conflict region' or 'Exposure' variables and the female dummy were jointly statistically insignificant and are not shown. All estimates are weighted by inverse sampling probability.

2008 (Post-Conflict) Survey Section

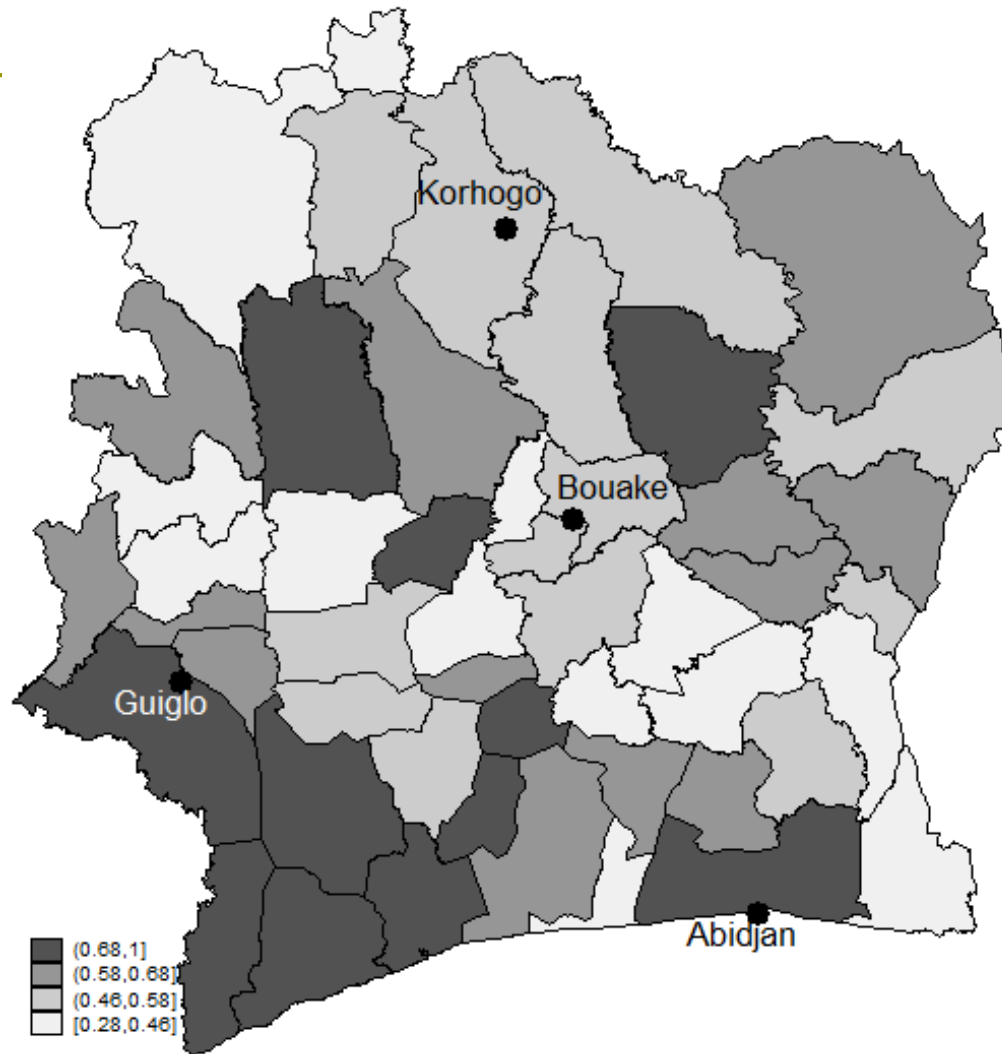
- Household victimization experiences due to the 2002-2007 conflict
- We compiled a simple victimization index as an average of all questions
- To explore specific mechanisms, we also grouped all the war-experience questions into four categories

Response Tabula- tions for Victimi- zation Indices

	[1]	[2]	[3]
	Conflict Region	Non-Conflict Region	Difference in Means [1]-[2]
<i><u>Economic losses</u></i>			
Because of the conflict...			
Were your assets/properties damaged?	0.14	0.08	0.06 ***
Did your revenues decrease?	0.71	0.68	0.03 ***
Did you lose your job?	0.08	0.04	0.03 ***
Did you lose your farm?	0.04	0.03	0.01 **
Did you lose livestock?	0.05	0.04	0.01 *
Did you lose any other productive assets?	0.10	0.05	0.05 ***
Overall, has the conflict affected your life?	0.65	0.58	0.07 ***
<i><u>Health impairment</u></i>			
Do you experience conflict-related nightmares?	0.20	0.19	0.01
Do you experience conflict-related ailments (anxiety, stress)?	0.27	0.26	0.02
Did you experience any conflict-related illness?	0.15	0.11	0.04 ***
Have you consulted a psychologist?	0.01	0.01	0.00
<i><u>Displacement</u></i>			
Have you been displaced by the conflict?	0.08	0.06	0.02 ***
Are you currently displaced by the conflict?	0.03	0.03	0.00
Did your household move because of the conflict?	0.10	0.07	0.03 ***
Did you have to hide because of the conflict?	0.23	0.16	0.07 ***
<i><u>Victim of violence</u></i>			
Have you been a victim of conflict-related violence?	0.19	0.11	0.08 ***
Did you witness conflict-related deaths in the household?	0.19	0.14	0.05 ***
Have you been forced into begging or prostitution?	0.03	0.01	0.02 ***

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. The question "Overall, has the conflict affected your life?" refers to losses of economic activity, difficulties in caring for oneself or finding shelter, loss of employment, dropping out of school, losing parents, losing assets or goods, or experiencing complete destruction of assets or goods. The question "Have you been a victim of conflict-related violence?" refers to theft, rape, other sexual violence, being wounded, or experiencing other troubles. Significance levels (column 3) refer to one-sided t-tests of the null that variables means are higher inside than outside the conflict region. Estimates are weighted by inverse sampling probability.

Household Victimization Map



Notes: Shaded areas represent regions where conflict-induced victimization was reported. Darker shades indicate a greater share of households reporting at least one level of victimization (one 'yes' answer to the questions underlying each index). The location of the cities on the map is approximate. Data source: Based on the 2008 Côte d'Ivoire HLSS.

Impact of Victimization on Child Health: 2008 Survey

	[1]	[2]	[3]	[4]	[5]	[6]
<i>Panel A. Full sample:</i>						
Victimized	-0.709* (0.345)	-0.699* (0.343)	-0.761** (0.357)	-0.743* (0.361)	-0.721* (0.393)	-0.666 (0.394)
Observations	2,026	2,026	1,975	1,975	1,821	1,821
R-squared	0.057	0.078	0.070	0.090	0.084	0.103
<i>Panel B. Non-migrants:</i>						
Victimized	-0.778** (0.317)	-0.809** (0.315)	-0.836** (0.304)	-0.861** (0.314)	-0.817** (0.343)	-0.802** (0.358)
Observations	1,686	1,686	1,642	1,642	1,509	1,509
R-squared	0.063	0.083	0.079	0.097	0.095	0.112
<i>p-value t-test that "Victimized" coefficients for migrant and non-migrant households are equal</i>						
	0.454	0.383	0.472	0.410	0.556	0.468
Province specific trends	no	yes	no	yes	no	yes
Child controls	no	no	yes	yes	yes	yes
Household head controls	no	no	yes	yes	no	no
Mother controls	no	no	no	no	yes	yes

Notes: Robust standard errors in parentheses, clustered at the province level. * significant at 10%; ** significant at 5%; *** significant at 1%. The top two rows report coefficients from the regressions on the full sample, while the next two rows refer to the sub-sample of non-migrant households (i.e., households that have lived in their current location since before the start of the war). All regressions include province fixed effects, month-of-birth fixed effects, and province-specific time trends.

$$\text{HAZ}_{ihjt} = \alpha_j + \delta_t + \lambda_{jt} + \beta_2(\text{Victimization}_h) + \varepsilon_{ijt}$$

Main Results

- Confirm results from earlier studies:
 - Children in conflict regions experienced significant health setbacks compared to children from less affected regions: 0.2-0.4 s.d.
 - It is remarkable how consistent the negative effect of conflict on HAZ is across countries and conflicts
- Provide direct evidence on the mechanisms at work:
 - household war-related victimization along several dimensions
 - War-induced **economic losses** have a particularly strong effect on child health in conflict-affected regions

Labor market effects- women

- ❑ Shemyakina (2015) explores the effect of the 1992–1998 armed conflict in Tajikistan on the labor market outcomes by gender.
- ❑ *Younger women* but not men who also lived in regions more affected by conflict were at least 10 percentage points *more likely to be employed* than similarly aged women from lesser affected districts.

Labor market effects- women

- ❑ In sub-regions that were more exposed to the Maoist conflict in 1996-2006 in Nepal, *female labour force participation and household headship* increased during and after the conflict (Menon and Rodgers 2011).
 - many men moved abroad to avoid military conscription,
 - women often stayed behind to take care of the family land and were more likely to be employed in agriculture and unskilled labor.
- ❑ In Colombia, women from households recently exposed to violent shocks were more likely to *work for a wage* and to *look for a job* in the past 12 months (Fernández et al. 2011).

Attitudes towards and experiences of domestic violence (LaMattina and Shemyakina 2016)

- A study on Sub-Saharan Africa examines the causal effect of exposure to armed conflict in childhood and youth (ages 0-20) on
 - Attitudes of **men and women** towards domestic violence
 - Experiences of domestic violence by **women**
- **Women** who experienced armed conflict between age 6-10 were **more** likely to report
 - Experiencing domestic violence than women who did not exposed to conflict.
 - Accepting of wife-beating.
- **Men** who experienced conflict during age 6-10, report to be **more** accepting of “wife beating”

Conclusion

- ❑ These are important results documenting change in people's behavior in response to complex emergencies
- ❑ May result in long-term changes in outcomes:
 - health and education, attitudes
- ❑ Early intervention is important, especially with respect to health of young children
- ❑ Need more programs in the field and opportunities to evaluate their success in delivering results