Conflict, Gender, and Education in the Democratic Republic of the Congo

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Abstract

The adverse effects of conflict on human capital are well established. However, the gendered direction of these effects remains contested. This paper examines the effect of conflict exposure in the Democratic Republic of the Congo (DRC) on years of education, with a focus on gender differences. The paper uses data from the Demographic and Health Surveys and ACLED to link respondents to conflict exposure. The results indicate that men exposed to conflict during their school-age years lose more years of education than women, for whom the effect is not detectable. The gender gap in education, therefore, narrows in the DRC, but men's losses primarily drive it.

I. Introduction & Literature Review

Since 1960, about one-third of all nations have experienced a civil conflict (Blattman & Miguel, 2010). According to Crippa et al. (2025), conflicts can reduce a country's GDP per capita by about 35 percent, a large macroeconomic cost. However, the burden of conflict first falls on individuals. Violence can disrupt human development across categories such as health, education, income, and migration (Vesco et al., 2025). These disruptions may differ among groups and could either widen or narrow existing gaps. Such a phenomenon exists in the educational gender gap, where the direction in which conflict pushes it is unsettled and varies by context.

Sub-Saharan Africa (SSA) is among the most conflict-ridden regions in the world, with the Stockholm International Peace Research Institute (SIPRI) reporting 21 active armed conflicts in 2024 (Davis & Pfeifer Cruz, 2025). In this paper, I focus on the Democratic Republic of the Congo (DRC) and analyze whether exposure to violent conflict during the school-age years (6–17) reduces educational attainment more for one gender group than the other. I use the 2023-24 DRC Demographic & Health Surveys (DHS) to obtain information on respondents' basic characteristics, such as age, gender, years of education completed, and type of residence. I then combine the DHS demographic dataset with the DHS GPS data, thereby linking each respondent's survey cluster to a geographic location. Using QGIS, I cover the DRC with 10-by-10-kilometer grids and assign each DHS respondent to the cell in which it is located.

The conflict exposure variable is constructed using the number of violent events in a respondent's grid cell during their school-age years. These events are extracted from the Armed Conflict Location and Event Data (ACLED) project dataset. The paper exploits variation across birth cohorts and locations, following an approach similar to that of Akresh and de Walque

(2008), Shemyakina (2011), and Verwimp and Van Bavel (2014). I find that a one-log-unit increase in school-age conflict exposure reduces men's schooling by 0.44 years, significant at the 1 percent level. There is no significant effect on women's years of education, suggesting that the gender gap in education narrows. The findings of this paper are robust across three specifications: one using a rural control, another using a subsample of respondents who reported living at their current location for the entirety of their school-age years, and a third using a binary measure of conflict exposure.

There is substantial empirical literature in economics showing that conflict reduces children's educational attainment when exposure occurs during the school-age years. Akresh and de Walque (2008) find that school-aged children exposed to the 1994 Rwandan Genocide, on average, completed 0.5 fewer years of schooling. Additionally, they were 15 percentage points less likely to complete third or fourth grade. Shemyakina (2011) observes a similar outcome for children exposed to the 1992-1998 Tajikistan civil war. In Burundi, which neighbors Rwanda, the 1993 massacres reduced the probability of completing primary school by 9 percentage points (Verwimp & Van Bavel, 2014).

However, the results in Burundi and Tajikistan differ by gender. Shemyakina finds that school-aged Tajik girls living in highly affected areas during the civil war were 7.3 percentage points less likely to be enrolled in school than girls of the same age living in less affected regions. There was no significant effect on boys' schooling. In contrast, Verwimp and Van Bavel (2014) find that each additional year of conflict reduced the probability of completing primary school by 6 percentage points for exposed Burundian boys, with smaller effects for girls. Evidence from Guatemala reinforces this ambiguity, as Chamarbagwala and Morán (2011) find reductions in schooling for both Mayan boys and girls.

This paper contributes evidence from the Democratic Republic of the Congo, a setting that has received less attention in the conflict and education literature, focusing on gendered outcomes. It is organized as follows. Section II describes the study setting, and Section III describes the data used in the regression analysis. Section IV outlines the identification strategy, and Section V presents the results. In Section VI, I present descriptive diagnostics and a placebo test to support the findings. A conclusion follows.

II. Context

The Democratic Republic of the Congo (DRC), located in Central Africa, is the second-largest country on the continent, and the largest country in Sub-Saharan Africa (World Bank, n.d.-a). Despite its wealth of natural resources, the DRC is one of the poorest countries in the world, with a GDP per capita of $649.4 as of 2024 (World Bank, n.d.-b). Since the 1990s, the DRC has been plagued by violent conflict, with approximately 5.4 million deaths between August 1998 and April 2007 (Moszynski, 2008). The ongoing cycle of violence began with the 1996 First Congo War, driven by the Rwandan invasion of the eastern part of the country to eliminate Hutu extremists who had fled following the genocide against the Tutsi in Rwanda. The conflict extended beyond a simple civil war, involving countries like Uganda, Burundi, and Angola. A second invasion, known as the Second Congo War, occurred in 1998 and ended in 2003 (Office of the United Nations High Commissioner for Human Rights, 2010).

However, the aftermath of the wars was severe. Conflict continued in the eastern DRC, particularly in North Kivu, South Kivu, and Ituri, as additional rebel groups emerged. According to the United Nations (UN), there were more than 100 rebel groups in the DRC as of 2019 (U.S. Department of State, 2020). In 2026, it is estimated that the conflict has led to the internal displacement of more than 7 million people (Global Centre for the Responsibility to Protect, 2026). Reports further indicate frequent attacks on civilians, including sexual violence and torture of female human rights defenders (OHCHR, 2025). One of the most prominent and active rebel groups is the March 23 Movement (M23), which in January 2025 took control of Goma, the capital of North Kivu. By February, they had advanced toward Bukavu (Brooke-Holland, 2025).

Sexual violence has become a weapon of war in eastern DRC. The United Nations Population Fund reported over 80,000 cases of rape in eastern Congo between January and September 2025, a 32 percent increase over the same period the previous year. The M23 and other Congolese military forces and armed groups were identified as perpetrators (Human Rights Watch, 2026). Shemyakina (2011) suggests that girls' reduced schooling during the Tajikistani Civil War may have resulted from parents' reluctance to let their daughters travel to school amid concerns about harassment by soldiers and militants. I consider a similar mechanism in the DRC, where exposure to conflict during women's school-age years could reduce their schooling due to sexual violence.

The presence of armed groups in the DRC also poses a threat to boys. Despite the 2012 DRC Action Plan, which formally prohibits the use and recruitment of children, boys as young as 14 continue to be abducted from schools and the streets to take up arms (Save the Children, 2025). Save the Children reports that more than 400 children were recruited in early 2025 following the re-emergence of M23. Therefore, forced recruitment is another mechanism through which boys' schooling may decline during conflict. The net effect of conflict on the educational gender gap in the DRC depends on which channel dominates.

Understanding how war disrupts human capital can inform policies to help inhabitants recover, grow economically, and mitigate the potential exacerbation of the gender gap. Conflict in the DRC has not affected all regions equally. It has been sporadic in some regions and continuous in others. It has affected people at different stages of their lives, whether they were school-aged, too young, or too old to be enrolled. Rather than comparing the DRC as a whole to a peaceful country, this paper exploits variation in conflict exposure and birth cohorts to estimate the effect of conflict on educational attainment for men and women.

III. Data

The main sources for this project are the 2023-24 DRC Demographic and Health Surveys (DHS) and the Armed Conflict Location and Event Data (ACLED). The DHS provides two datasets pertinent to the analysis: the individual recode and the men's recode, each of which presents nationally representative data on health, education, fertility, household characteristics, and other demographic outcomes. The individual recode contains responses from women aged 15 to 49, with 27,583 observations, whereas the men's recode contains responses from men aged 15 to 59, with 12,681 observations. For a simple, coherent analysis, I clean and merge the two datasets into a single dataset. Therefore, the unit of observation is an individual respondent, and the raw sample size is 40,264. ACLED records violent events in the DRC by type, including location, date, and reported fatalities, from 1997 to 2025. Protests, riots, and other forms of demonstrations are excluded. 49.4% of events are battles, 48.3% are violence against civilians, and 2.3% are explosions or remote violence.

To link conflict exposure to individual respondents, I combine ACLED with DHS GPS coordinates. The DHS GPS file provides the longitude and latitude of each survey cluster, which I use to assign each DHS respondent to a 10-kilometer-by-10-kilometer grid cell covering the DRC. The grid cells are constructed in projected coordinates using QGIS. Each grid cell has a unique grid-cell identifier, $grid\_id$. Respondents inherit the $grid\_id$ of their DHS cluster, while

ACLED events inherit the $grid\_id$ of the cell in which the event occurred. I then count the yearly number of violent ACLED events in each grid cell and construct each respondent's school-age conflict exposure by summing the violent-event counts in the respondent's grid cell over the years when the respondent was ages 6 through 17. I choose this specific age range because it represents respondents' traditional school-age window; students are typically in primary school between 6 and 11 and in secondary school between 12 and 17.

Finally, I merge these event counts with the DHS respondents' data. The DHS program randomly displaces longitude and latitude values to maintain respondents' confidentiality. Specifically, they state that "urban clusters are displaced by up to 2 kilometers. Rural clusters are displaced up to 5 kilometers, with 1% of the rural clusters displaced up to 10 kilometers" (Mayala & Donohue, 2022). In section IV, I describe how I use the grid-year conflict counts to construct the exposure variable used in the regression analysis.

The main dependent variable in this analysis is educational attainment, which measures the number of years of education completed by a respondent. A value of 0 indicates that the respondent completed no formal schooling, and higher values indicate more completed years of education. The main independent variable is exposure to conflict during school-age years. Because this paper seeks to estimate whether the relationship between conflict and educational attainment differs by gender, I construct a $Female_i$ indicator that assigns the value 1 to all observations in the individual recode and 0 to all observations in the men's recode before merging the two data sets. The DHS also provides sampling weights, which I account for when describing the sample and estimating relationships between schooling and conflict exposure.

The primary analysis sample is restricted to respondents aged at least 22 born in or after 1980. The minimum age requirement ensures that the school-completion window and any educational transitions have been completed. For instance, an 18-year-old responding to the survey might still have one year of secondary school remaining, something a lower age cutoff might overlook. The 1980 lower bound reflects both data and identification concerns. Women born before 1975 are not covered in the sample at all, which would not make them comparable to the men. In addition, older respondents may report schooling and time spent in their childhood residence with more recall error. Choosing a later year, such as 1985, would eliminate the pre-conflict comparison groups entirely. The 1980-1984 birth cohorts, therefore, provide a partial pre-conflict comparison group. These restrictions reduce the number of observations to 22,679, of which 16,296 are women, and 6,383 are men aged 22 to 44.

Table 1 presents summary statistics for the main variables in my analysis. On average, women complete 7.23 years of schooling compared to 9.89 years with men. The educational gender gap also appears in the school completion indicators: 64 percent of women complete at least primary schooling, compared with 85 percent of men, and 26 percent of women complete at least secondary schooling, compared with 46 percent of men. Figure 2 depicts these educational trends by birth year, separately for men and women. The mean years of schooling for women rose from about 5.5 years for those born in the 1980s to about 8 years for those born in the mid-1990s. Men's mean years of schooling remain relatively stable. The identification strategy in Section IV controls for these trends using birth-year fixed effects.

Conflict exposure is similar across gender groups. Women experienced an average of 8.03 conflicts in their grid cell during the school-age years, while men experienced an average of 7.55. Approximately 27% of women and 25% of men experienced at least one conflict. The distribution of conflict is highly right-skewed: roughly three-quarters experience few or no conflicts, while only a small number experience hundreds of violent events. For this reason, I use a log-transformed measure of conflict in my main specification and a binary measure as a robustness check.

Because the conflict exposure variable is constructed from respondents' current locations, migration during the school-age years could introduce measurement error. However, in this analysis, 80.09% of respondents resided in their current location during their full school-age window. I refer to these respondents as "stayers." Stayer rates are 81.27% for women and 77.07% for men, indicating that men are somewhat more mobile than women. I address this issue in Section IV through a robustness check on the stayer subsample. Lastly, Figure 1 displays the spatial distribution of DHS clusters and ACLED events. While violent events occur all over the DRC, they are heavily concentrated in the eastern provinces of North Kivu, South Kivu, and Ituri. This distribution supports the variation I exploit in my identification strategy.

IV. Methods

A simple OLS regression would not be appropriate for estimating the causal effect of conflict on education. Regions with poor schooling outcomes may systematically differ from those with good outcomes in terms of higher poverty rates, inadequate infrastructure, or stricter gender norms. Therefore, there is a high risk of omitted variable bias (OVB). To address this issue, I exploit variation across birth cohorts and geographic areas by comparing individuals from different birth cohorts within the same area, since different cohorts were school-aged during different conflict years, and by comparing individuals from the same birth cohort across areas that experienced different levels of conflict.

My main identification strategy follows a difference-in-differences (DiD) logic but uses a continuous measure of conflict rather than simple treated and control groups. This strategy still requires a parallel-trends assumption, meaning that, in the absence of conflict, schooling outcomes across birth cohorts would have evolved similarly across areas with higher and lower levels of conflict exposure. The primary estimating equation is the following:

$$YearsEd_{igc} = \beta_0 + \beta_1 log(ConflictExposure_{gc} + 1) + \beta_2 Female_i + \beta_3[log(ConflictExposure_{gc} + 1) * Female_i] + X_i'\gamma + \delta_g + \delta_c + \varepsilon_{igc}, \quad (1)$$

where the i indexes individuals, g 10-kilometer grid cells, and c birth cohorts. δ_g denotes the grid-cell fixed effects, δ_c birth-cohort fixed effects, and ε_{igc} is a random error term. $Female_i$ is an indicator equal to 1 if the respondent is female and 0 otherwise. The $ConflictExposure_{gc}$ variable is constructed from ACLED-recorded violent events in the respondents' 10-kilometer grid cell between the ages of 6 and 17. Mathematically, it can be expressed as

$$ConflictExposure_{gc} = \sum_{a=6}^{17} Events_{g,c+a}.$$

I estimate the model using a log-transformation $log\,(ConflictExposure_{gc} + 1)$ to reduce the influence of extreme values. In the log specification, β_1 captures the effect of a one-unit increase in log conflict exposure on a man's years of education. A one-unit increase in log conflict exposure corresponds to roughly a threefold increase in the number of events. For example, moving from 0 to 2 events, from 5 to about 15 events, or from 20 to about 55 events each represents a one-log-unit increase. β_2 is the difference in years of education between women and men for whom conflict exposure is 0. β_3 captures the additional change in women's years of education, relative to men's, associated with a one-unit increase in logged school-age conflict exposure, and $\beta_1 + \beta_3$ gives the total relationship between logged conflict exposure and women's schooling. The coefficient of interest, β_3, can be interpreted as follows. If $\beta_3 < 0$ and significant, then conflict has a disproportionately negative effect on girls' schooling. If $\beta_3 \approx 0$ the conflict affects men and women similarly. If $\beta_3 > 0$, then conflict hurts men more than women.

The last relevant variable in my analysis is $X_i'\gamma$, a vector of individual-level control variables. In my main specification, I include the female indicator and its interaction with conflict exposure. Grid and cohort fixed effects absorb any other determinants of school attainment. As a robustness check, I add rural residence as a control, but do not include the wealth quintile, as it could be affected by conflict exposure.

As mentioned earlier, the validity of this design rests on a parallel-trends assumption. If high-conflict grid cells were already on a different educational trajectory than low-conflict cells, then the results of this paper could not be interpreted as causal. I do not have a pure control group because ACLED coverage begins in 1997; therefore, the earliest cohorts have only some of their school-age years covered in the conflict data. Given that the First Congo War started in 1996, I treat these groups as having lower exposure. I use a descriptive diagnostic test to assess whether earlier, lower-exposure cohorts already had different schooling trajectories in areas that later experienced higher conflict. I discuss the results in section VI.

Another threat to the validity of this study is migration. Because conflict can drive people to move to safer areas, some respondents' current location may be less conflict-prone than their previous one, potentially biasing the estimate toward 0. As a robustness check, I re-estimate the model on a subsample of respondents who report having lived in their current location throughout their full school-age window. The results of this regression are presented in section V. Third, if conflict kills people non-randomly, those who died could be systematically different from those who survived, introducing sample bias. The bias could go two ways. On the one hand, conflict could kill less-educated, less likely to stay enrolled, or poorer boys, or boys in armed groups. On the other hand, it could kill more educated and well-off boys. Either way, the sample is not representative of the actual population. This issue is hard to address because we cannot know whether those who died would have had more or fewer years of education than those who survived. My analysis is therefore vulnerable to this concern.

Lastly, ACLED coverage may vary over time and across regions depending on the availability of source reporting. If conflict is underreported in some areas, the estimated relationship between conflict exposure and schooling may be weaker than the true relationship. Assuming that, in the absence of conflict, schooling trends would have evolved similarly across high- and low-conflict regions, and that migration, selective mortality, and ACLED imprecision do not drive the estimates, the results of this study can be interpreted as causal.

V. Primary Results

This paper tests whether conflict exposure during the school-age years (6-17) reduces educational attainment more for one gender than the other in the Democratic Republic of Congo. The results of this study show that conflict exposure is negatively associated with men's educational attainment, but the estimated relationship is much smaller for women. Table 2 reports the results.

Column (1) shows the main specification using logged conflict exposure during the ages 6 to 17. The coefficient corresponding to β_1, -0.441, indicates that each one-unit increase in logged conflict exposure is associated with 0.441 fewer years of education for men. This is statistically significant at the 1 percent level. β_2 is equal to -3.104 and is also statistically significant at the 1 percent level. This means that, for men and women with no conflict exposure, women complete substantially fewer years of education. The interaction between logged conflict exposure and gender yields a coefficient of $\beta_3 = 0.381$, which is statistically significant at the 1 percent level. This implies that exposure to conflict harms men more than women. Adding β_1 and β_3 yields the total effect of conflict exposure on women's schooling, which corresponds to about 0.061 fewer years of education. However, this result is not statistically significant ($p = 0.476$), suggesting that the negative association between conflict exposure and education is concentrated among boys.

Column (2) runs the same regression as Column (1), but adds rural residence as a control. The results are similar, indicating robustness across specifications. The coefficient on logged conflict exposure is -0.456, and the interaction term is 0.383, both significant at the 1 percent level. The estimated relationship for women is therefore -0.073 years, but it is not statistically significant ($p = 0.402$).

In section IV, I mention that migration can introduce measurement error. Column (3) addresses this concern by running the main specification, but restricting the sample to respondents who lived at their current location throughout their school-age years. I find that results remain similar. The coefficient on logged conflict exposure is -0.517, and the interaction term is 0.456. The implied relationship for women is therefore -0.060, which is nearly identical to column (1)'s specification. This result is not statistically significant ($p = 0.488$).

Column (4) uses a binary measure of conflict exposure: 1 if the respondent experienced any conflict during ages 6 to 17, and 0 otherwise. The coefficient on conflict exposure is -0.794 statistically significant at the 1 percent level, suggesting that exposed men complete 0.79 fewer years of education than nonexposed men. The interaction term is 1.238 also statistically significant, supporting the pattern that women's education is less affected by conflict than men's. However, the total effect for women is marginally significant at the 10 percent level ($p = 0.066$). Because binary conflict exposure does not distinguish between a respondent who has experienced 2 conflicts and one who has experienced 100, we should treat this estimate with caution. Nevertheless, it supports the overarching pattern that men are more hurt by conflict than women.

VI. Descriptive Diagnostics & Placebo Test

I conduct a diagnostic test to determine whether high- and low-conflict regions followed different educational trajectories before the First Congo War in 1996. I define high-conflict regions as North Kivu, South Kivu, and Ituri, and low-conflict regions as the remaining provinces in the sample, because these regions account for 85.2% of violent events in ACLED. I take the DHS sample and restrict it to either men or women. Using DHS sampling weights, I compute the average years of education within each three-year birth cohort (to reduce noise in the smaller high-conflict cells), separately for high- and low-conflict regions.

Figure 3 shows that schooling for men in low-conflict regions rises from about 9 years (1980-82) to 10.5 years (1989-91) and remains elevated thereafter. In high-conflict provinces, schooling follows the other provinces' trend through the 1986-88 cohort, then diverges at the 1989-91 cohort. It then falls and remains around 9 years for subsequent cohorts. Because the school-age window of the 1989-91 birth cohort overlaps with parts of the First and Second Congo Wars, these observations support my findings. Figure 4 shows the schooling trends for women. Women in low-conflict provinces consistently complete 1 to 2.5 more years of schooling than those in high-conflict provinces. This could reflect underlying differences across provinces, such as wealth and gender norms. However, both groups rise in parallel, consistent with the regression finding that conflict has no statistically significant effect on women's schooling.

I reinforce the above findings by estimating the difference in average schooling between high- and low-conflict regions for each three-year birth cohort. I regress years of education on the interaction of birth cohort and high-conflict region, separately for men and women. Standard errors are clustered at the grid-cell level. Figure 5 shows the cohort-specific differences for men with 95% confidence intervals. For the pre-1989 birth cohorts, the differences are small and statistically indistinguishable from 0. The 1980-82 gap is $+\ 0.08$, the 1983-85 gap is $-\ 0.51$, and the 1986-89 gap is $+\ 0.25$. The confidence intervals for these periods all contain 0. Starting with the 1989-91 cohort, the gap drops to approximately $-\ 1$ years and remains in that range for subsequent birth cohorts. The difference in average years of education for the 1995-97 and 1998-00 birth cohorts is statistically significant at the 5 percent level, while the 1992-94 gap is significant at the 10 percent level.

Figure 6 plots the same gaps for women. Women in high-conflict provinces consistently have lower educational attainment than women in low-conflict regions. Point estimates range from $-\ 0.78$ to $-\ 2.58$. The largest educational gap occurs in the 1980-82 and 1983-85 birth cohorts. Since the difference in average years of education for women is negative even for cohorts that should have been too old to be affected by the conflict, there could exist pre-existing differences between high- and low-conflict regions. I test this possibility.

I re-estimate equation (1) on a group of respondents born between 1980 and 1984. Someone born in 1980 was 16 during the First Congo War; therefore, nearly all of their school-age years were pre-war. Someone born in 1984 had approximately 6 of their 12 school-age years pre-war. While these are not a perfect placebo group and contain measurement error due to the sample size and the ACLED coverage start date, the analysis still provides relevant insights. Table 3 shows the results.

For men, the estimated effect of log conflict exposure on years of education is -0.346 and statistically insignificant ($p = 0.255$). This supports the results of my primary regression, as there is no systematic pre-existing trend in men's education across high- and low-conflict cells. For women, the implied effect of log conflict exposure on years of education is $\beta_1 + \beta_3 = 0.438$, also statistically insignificant ($p = 0.139$). Therefore, the pre-cohort regressions support the design underlying the main results in Section V.

VII. Conclusion

The ongoing conflict in the Democratic Republic of the Congo has inflicted devastating losses on its people. Those who have survived and continue to live in the conflict face consequences that can affect their economic outcomes and futures, much of which rests on their education. This paper uses DHS and ACLED data to estimate the effect of conflict exposure on schooling, with a particular focus on its impact on the gender gap in education. I find that conflict reduced men's schooling by approximately 0.44 years per log-unit increase and had no statistically significant effect on women's schooling. The analysis, therefore, points toward a reduction in the gender gap driven not by women's schooling improving particularly, but by men's being disproportionately affected. These results partly mirror Verwimp and Van Bavel's (2014) findings, which found that men's schooling was reduced due to conflict and that the gender gap narrowed for girls from nonpoor households.

Many factors can explain why men's schooling declines. If school-age boys were disproportionately targeted and forced into recruitment, we would expect years of schooling to decline. The current political climate in the DRC points towards this possibility. For women, however, the story is different. With fewer years of schooling to begin with, likely reflecting pre-existing gender norms, there is less room for conflict to substantially reduce their schooling. This may explain the lack of a detectable effect of conflict on women's years of education. I also cannot rule out several limitations, such as ACLED's coverage beginning after the war, and migration not being fully addressed by the stayer subsample.

Nevertheless, these findings have implications for post-conflict education policy. Educational interventions may need to pay particular attention to boys, as they appear to bear a greater share of the schooling costs of sustained conflict. This does not change the fact that women still consistently receive fewer years of schooling; it simply creates a larger educational issue. Future research could test whether the recruitment mechanism is a channel through which men's schooling declines, and use other fixed effects and controls that were not previously available in the DHS.

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Tables & Figures

Figure 1: Map of DRC with DHS clusters (blue) and ACLED violent events (red)

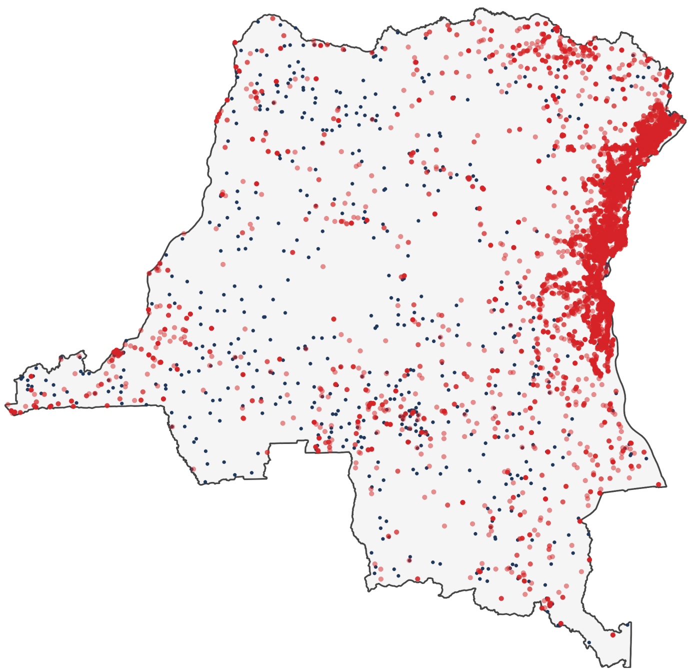

Figure 2: Mean years of education by birth cohort and gender

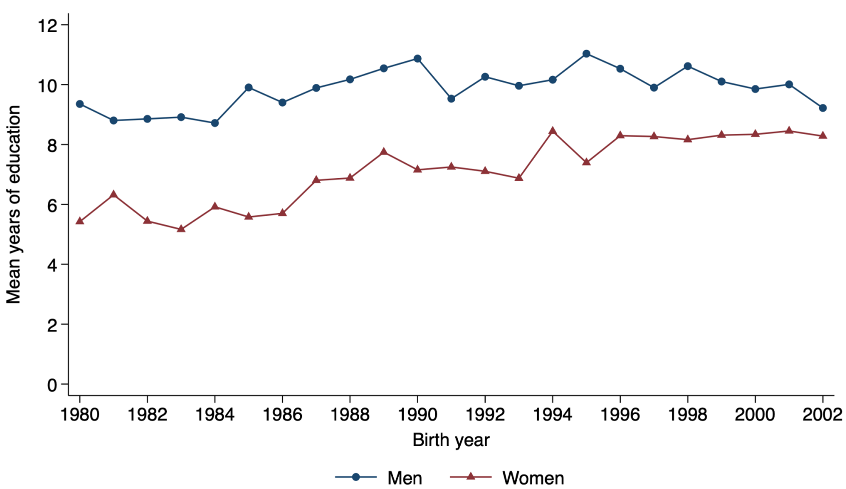

Figure 3: Men's Educational Attainment by Birth Cohort and Province Group

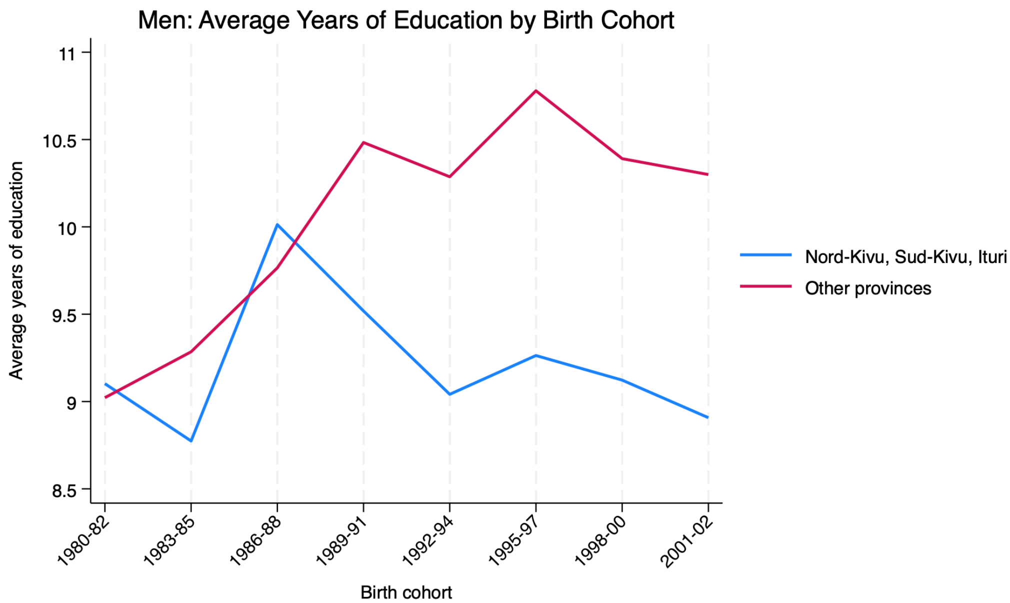

Figure 4: Women's Educational Attainment by Birth Cohort and Province Group

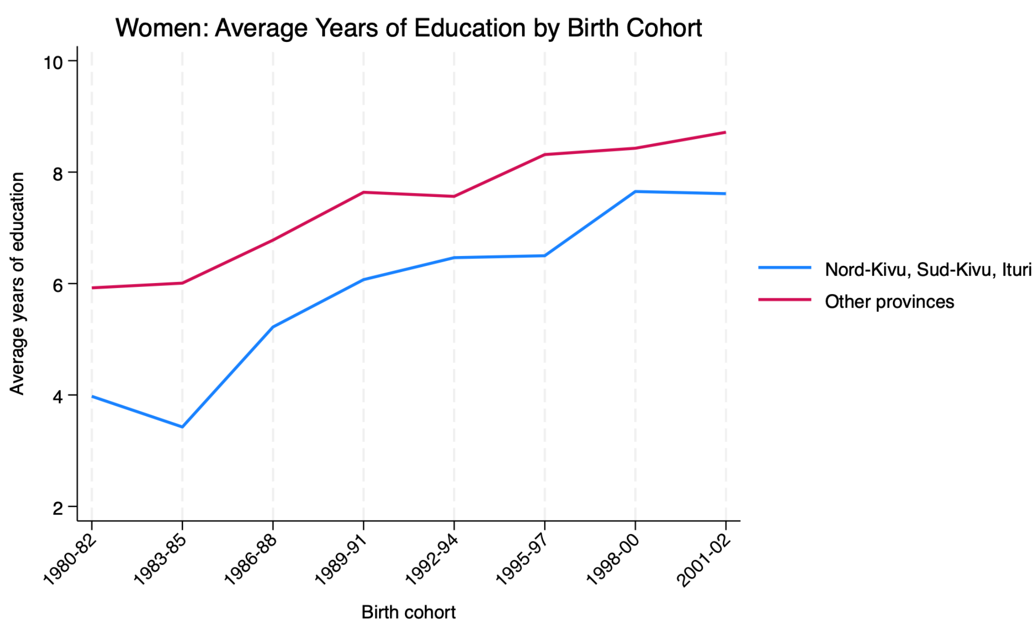

Figure 5: Cohort-Specific Education Gap (Men), High-Conflict Minus Other Provinces, with 95% CIs

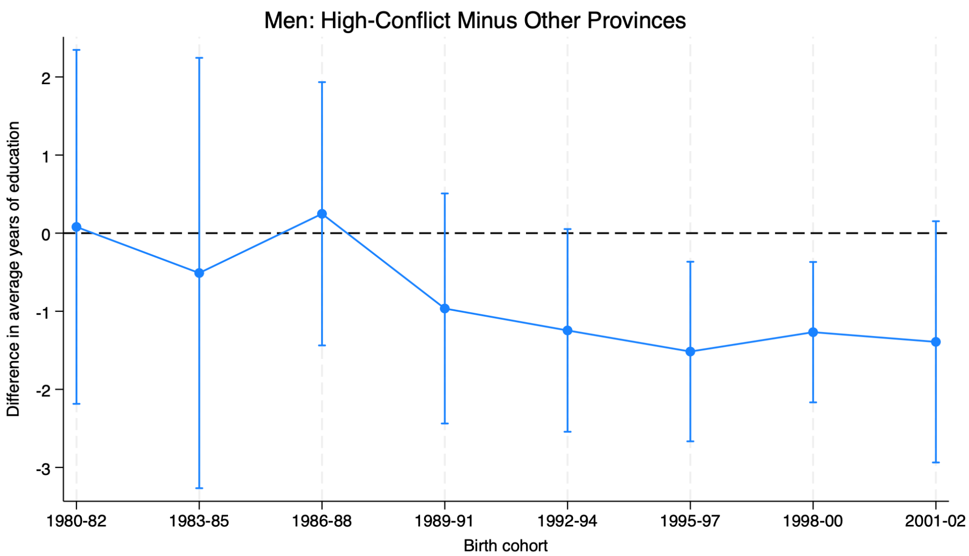

Figure 6: Cohort-Specific Education Gap (Women), High-Conflict Minus Other Provinces, with 95% CIs

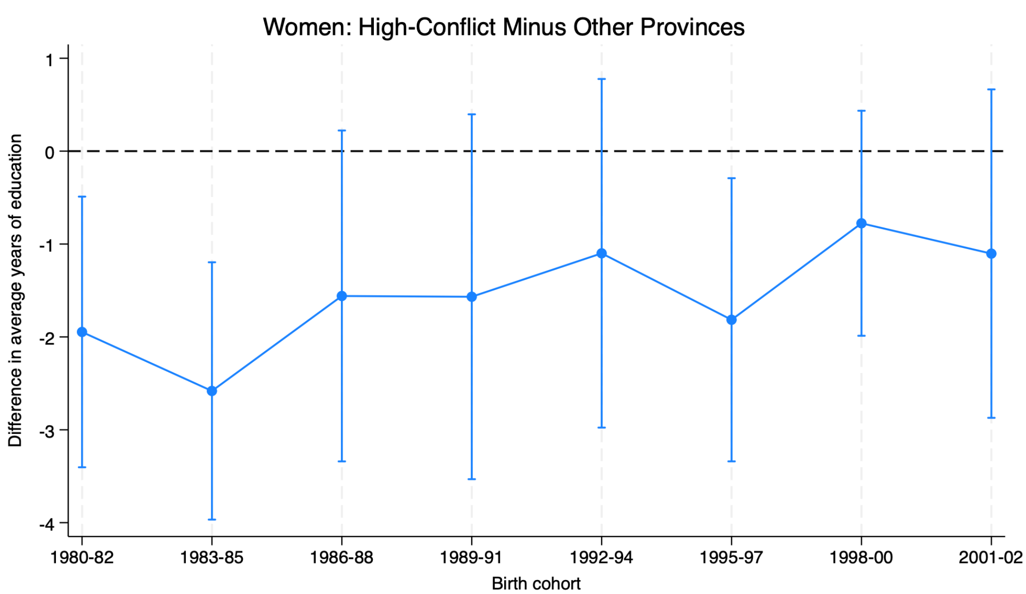

Table 1: Summary Statistics, Analysis Sample

	Women					*Men*				
	Obs.	**Mean**	**SD**	**Min**	**Max**	**Obs.**	**Mean**	**SD**	**Min**	**Max**
Years of education	16,296	7.23	4.83	0.00	18.00	6,383	9.89	4.04	0.00	24.00
Completed primary (≥6 yrs)	16,296	0.64	0.48	0.00	1.00	6,383	0.85	0.35	0.00	1.00
Entered secondary (≥7 yrs)	16,296	0.56	0.50	0.00	1.00	6,383	0.79	0.41	0.00	1.00
Completed secondary (≥12 yrs)	16,296	0.26	0.44	0.00	1.00	6,383	0.46	0.50	0.00	1.00
Conflict events, ages 6–17	16,296	8.03	31.59	0.00	341.00	6,383	7.55	30.33	0.00	321.00
Any conflict, ages 6–17	16,296	0.27	0.44	0.00	1.00	6,383	0.25	0.43	0.00	1.00
Birth year	16,296	1992	6.29	1980	2002	6,383	1991	6.52	1980	2002
Rural residence	16,296	0.60	0.49	0.00	1.00	6,383	0.62	0.49	0.00	1.00
Wealth quintile	16,296	3.12	1.45	1.00	5.00	6,383	3.10	1.43	1.00	5.00

Notes: Sample includes DRC DHS 2023–24 respondents aged 22 or older and born in 1980 or later (birth cohorts 1980–2002). Means and standard deviations are weighted by DHS sampling weights. Conflict events are violent ACLED events occurring in the respondent's 10-kilometer grid cell during ages 6–17. Wealth quintile is the DHS-constructed wealth index quintile (1 = poorest, 5 = richest).

Table 2: Effect of School-Age Conflict Exposure on Years of Education

	(1) *Main*	(2) *+Rural*	(3) *Stayers*	(4) *Binary*
Log conflict (ages 6–17)	−0.441***	−0.456***	−0.517***	
	(0.109)	(0.108)	(0.111)	
Any conflict (ages 6–17)				−0.794***
				(0.243)
Female	−3.104***	−3.107***	−3.119***	−3.192***
	(0.167)	(0.167)	(0.171)	(0.140)
Log conflict × Female	0.381***	0.383***	0.456***	
	(0.083)	(0.080)	(0.071)	
Any conflict × Female				1.238***
				(0.248)
Rural		−2.112***		
		(0.332)		
Total effect of conflict exposure on women ($\beta_1 + \beta_3$):				
Sum (women)	−0.061	−0.073	−0.060	0.444*
	(0.085)	(0.087)	(0.087)	(0.241)
Observations	22,679	22,679	18,681	22,679
R-squared	0.499	0.500	0.505	0.499
Grid-cell FE	Yes	Yes	Yes	Yes
Birth-year FE	Yes	Yes	Yes	Yes

*Notes: Dependent variable is completed years of education. Standard errors, clustered at the grid-cell level, in parentheses. All specifications include grid-cell and birth-year fixed effects. Observations weighted by DHS sampling weights. Column (3) restricts the sample to respondents who lived in their current location throughout the school-age window. Column (4) replaces the log-conflict measure with a binary indicator equal to one if the grid cell experienced any conflict during the respondent's school-age years. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*

Table 3: Placebo Test (Pre-Treatment Cohort, Born 1980–1984)

	(1) *Years Ed.*	(2) *Primary*	(3) *Entered Sec.*	(4) *Completed Sec.*
Log conflict (ages 6–17)	−0.346	−0.063	−0.068*	0.056*
	(0.304)	(0.039)	(0.040)	(0.032)
Female	−3.556***	−0.319***	−0.306***	−0.199***
	(0.257)	(0.028)	(0.028)	(0.023)
Log conflict × Female	0.784***	0.108***	0.092***	0.025
	(0.185)	(0.017)	(0.015)	(0.028)
Observations	3,912	3,912	3,912	3,912
R-squared	0.561	0.441	0.483	0.412
Joint F-tests of pre-trends (p-values):				
Men's pre-trend (β_1=0)	0.255	—	—	—
Women's pre-trend (β_1+β_3=0)	0.139	—	—	—

*Notes: Sample restricted to respondents born 1980–1984 (the pre-treatment cohort). Each column reports a separate regression of the indicated education outcome on log school-age conflict exposure, a female indicator, and their interaction, with grid-cell and birth-year fixed effects. Standard errors clustered at the grid-cell level in parentheses. Observations weighted by DHS sampling weights. F-test p-values at the bottom report the joint hypothesis tests for the men's pre-trend ($\beta_1 = 0$) and the implied women's pre-trend ($\beta_1 + \beta_3 = 0$), estimated from the years-of-education regression. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*