University of Denver

Digital Commons @ DU

Electronic Theses and Dissertations

Graduate Studies

8-1-2014

Primary Schooling as Protective and Endangering: The Case of Education in War-Affected Gulu District

Sarah Gates
University of Denver

Follow this and additional works at: https://digitalcommons.du.edu/etd

Part of the Education Commons, and the International Relations Commons

Recommended Citation

Primary Schooling as Protective and Endangering: The Case of Education in War-affected Gulu District

_____

A Thesis
Presented to
The Faculty of the Josef Korbel School of International Studies
University of Denver

_____

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

_____

by
Sarah Gates
August 2014
Advisor: Dr. Timothy D. Sisk

Author: Sarah Gates
Title: Primary Schooling as Protective and Endangering: The Case of Education in War-affected Gulu District
Advisor: Dr. Timothy D. Sisk
Degree Date: August 2014

ABSTRACT

The changing nature of armed conflict in the 21st century, marked by indiscriminate targeting of civilians, poses severe challenges for the continuation of teaching and learning in war-affected countries. Conflict may affect schooling directly through attacks on students, teachers, and schools, as well as indirectly by affecting individuals' livelihoods, the state's capacity to deliver services, and refugee flows. Further, schools may reflect conflict and violence through oppressive or divisive linguistic policies or curricula, the use of corporal punishment, and sexual violence against students. However, the existing empirical research on the nexus between education and conflict, by focusing on indicators of participation, does not adequately reflect the magnitude of the problem. Through an analysis of education indicators on progression and completion in Sub-Saharan Africa and a case study of primary schooling in Gulu District in Northern Uganda, this study explores the patterns and mechanisms which characterize and link education and conflict.

TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

On Wednesday, April 30th, at least twenty people, including seventeen students

and one teacher were killed when barrel bombs were dropped on an elementary school in

Aleppo, Syria (Barnard and Saad, "Children's Art at Syria School, and Then a Bomb").

This followed the April 14th kidnapping of more than 200 girls at a secondary school in

northern Nigeria by the group Boko Haram, whose leader stated several days later in a

video that the girls should not have been in the school in the first place ("US 'outrage' at

Nigeria Abductions"). These two examples illustrate how the changing nature of armed

conflict, marked by "the absence of clear frontlines, identifiable opponents, as well as the

increasing use of terror tactics by armed groups," has endangered children and schools in

new ways (UN General Assembly 2). Schools have become targets, as representative of

the state or sites of recruitment for child soldiers. In the case of Boko Haram, schools are

targeted for a more direct reason: to deter students, especially girls, from attending them.

The Secretary-General's annual Report on Children and Armed Conflict

identifies attacks against schools and hospitals as one of six grave violations against

children (UN General Assembly 2). The report describes how schools are often the sites

of attacks and recruitment of children as soldiers; schools are occupied by government

and rebel forces as military barracks, weapons storage facilities, command centers,

detention and interrogation sites, and firing and observation positions (UN General

Assembly 3). The report concludes that "such use of schools not only results in reduced

enrolment and high drop out rates, especially among girls, but also may lead to schools being considered legitimate targets for attack" (UN General Assembly 3).

Examples of attacks on schools from 2012 and 2013 are identified in Iraq, Libya, the Democratic Republic of Congo, Afghanistan, the Central African Republic, Mali, Israel, the Occupied Palestinian Territories, Somalia, South Sudan, Syria, Pakistan, the Philippines, India, and Thailand. The number of incidents was especially high in Afghanistan, with 167 incidents effecting education, including attacks, threats of attacks, and forced closures in 2012; Mali, with 115 schools looted, damaged, or bombed in 2012; the Palestinian Territories (including east Jerusalem) with 321 attacks on schools in 2012; Yemen, with 61 incidents of violence against pupils/teachers, 57 schools damaged by shelling, and 36 incidents of military use of schools; and Pakistan, with 118 school destroyed or damaged (UN General Assembly).

Incidents were highest of all in Syria, where one in every five schools has been destroyed, damaged, or converted into IDP shelters, and more than two million children are out of school. 167 education personnel, including 69 teachers, were reported to have been killed as of the end of February 2013; 2,445 schools were reported to have been damaged; and approximately 2,000 schools are reported to be in use as IDP shelters (UN General Assembly 34). The conflict has affected refugee education for Palestinians in Syria as well; 69 of 118 UNRWA[1] schools were reported closed as of April 2013 ("Back to School at UNRWA"). Both the government and the Free Syrian Army have used schools for military purposes, and schools continue to be bombed by government forces. As a result, enrollment of students has dropped dramatically, despite the Syrian Ministry

---

[1] United Nations Relief and Works Agency for Palestine Refugees in the Near East

of Education's 2012 order that students return to school (UN General Assembly 34).   In

fact, according to a UNICEF statistic from March 2013, only 6% of students in Aleppo

are in school ("Syria Conflict Depriving Children of Their Education").

Statement of the Problem

The current situation in Nigeria, Syria, Uganda and other conflict-affected

countries points to the continued need to examine how schools function in the context of

armed conflict, as students and teachers find not only that the act of teaching and learning

is at risk but that they are also threatened physically by their presence in schools.

However, much of the current empirical analysis on education and armed conflict does

not adequately reflect the negative effect of conflict on schooling, as it focuses primarily

on indicators of participation, specifically enrollment and attendance. Arguably, even if

children are in school during or after conflict, their learning may be affected by a range of

variables that constrain their ability to complete schooling: "trauma or hunger, untrained

or ill-prepared teachers, or lack of sufficient teaching materials and infrastructure" and

school closings (Nicolai and Triplehorn 9).

Children may continue to attend, or they may remain enrolled in school without

attending, but they may not complete their schooling. In fact, it may not be the case that

enrollment or attendance is hugely affected during conflict periods—schools may provide

the safest spaces for children, and parents and NGOs may encourage their children to

continue schooling even in conflict periods so that they are employable post-conflict. An

interviewee for this project described how this was the case in Uganda:

> … somehow enrollment kept on becoming bigger and bigger because learning
> centers [of displaced schools] were in the camps. Children did not have to walk
> any distance. World Food Programme [was providing] meals at school …

Coming on when the war was ending, schools were supposed to go back to original sites. .... Enrollment really went so down (Interview with the author, 1 May 2013, Kampala, Uganda).

For these reasons, it is more relevant to consider measures of educational attainment over educational participation. Using a mixed methods approach, this study investigates the question: how does education function in the context of armed conflict? Specifically, how does civil war affect indicators of attainment and completion during and after conflict? Overall, findings indicate support for the hypothesis that civil war negatively affects educational attainment and completion and that these indicators continue to decline in the post-conflict period. This decline does not appear to dissipate over time, except for in the case of gender parity for net intake rates.

Still, these results do not tell us anything about the local-level mechanisms which link conflict and education. Through a case study of primary schooling in war-affected Gulu District in Northern Uganda, this study considers the following questions: what are the mechanisms which link violent conflict and effects on educational access, attainment, and completion? How does education play both a protective and endangering role for children during conflict? How can the agency of individual students, teachers, parents, and school administrators help to create a school culture which supports or in some cases undermines students' well-being?

The idea of schools as protective for children during conflict is not new: Nicolai and Triplehorn's 2003 Humanitarian Practice Network paper identified the following potential protective factors of education:

the sense of self-worth that comes from being a student and learner; the growth and development of social networks; the provision of adult supervision and access

to a structured, ordered schedule as well as basic literacy and numeracy skills (Nicolai and Triplehorn 9).

However, the literature has focused on the potential for schools to serve a normalizing or destructive role, rather than the mechanisms through which these effects might play out. As Winthrop and Kirk (2008) demonstrate, there has also been little focus on how the processes of teaching and learning actually take place, which is arguably the most important factor in supporting children's well-being in schools and the one which distinguishes the importance of schools from other social spaces during conflict.

This study argues that local actors—specifically students, teachers, parents, and school administrators—play a critical role in ensuring that schools protect children through strategies which support the learning that takes place in schools. By learning, this study considers both formal and non-formal or "social" learning (for example, knowledge of the local security situation or how to cope with various challenges that might arise during conflict). The analysis and findings contribute to the literature by exploring how individuals shape school culture to create either a protective or destructive environment in periods of conflict. Considering the war's effects on primary school intake, survival, and completion in Northern Uganda, this analysis demonstrates that students and teachers were active participants in shaping teaching and learning in an environment dominated by insecurity due to attacks and threats of attacks, the reflection of this violence in schools, and the destruction of social and economic infrastructure. Students' and teachers' strategies to create a protective school culture are discussed, with

5

a focus on an overall prioritization of learning, in-school relationships, and informal forms of teaching and learning.

Considering primary education in Gulu District in Northern Uganda from 1986 to 2006 provides a valuable case for beginning to understand the protective and endangering role of education in conflict and the agency of students, teachers, and administrators to maintain educational operations. Civilians were heavily targeted during the LRA insurgency, and protection for civilians was very limited; travel to and attendance in school was frequently viewed as dangerous. Robert Gersony describes the decades-long disruption to education from 1987-1997:

> up to 6,000 children, including many secondary school students, have been abducted and subjected to LRA indoctrination, and many have been killed … more than 100 schools have been destroyed … [and] more than 100 teachers have been killed (Gersony 79).

At the same time, school was viewed by some as the safest place to be. Children and youth interviewed in 2004 by a team from the Women's Commission for Women and Children Refugees (WCRWC) spoke to the value they placed on education as "perhaps the most important way to prevent recruitment and re-recruitment into armed groups" (WCRWC *Learning in a War Zone* 2).

Gulu and Kitgum Districts witnessed the majority of the LRA violence.[2] It was reported in 1999 that "the districts of Gulu and Kitgum were found to be the most affected … it was established that there was only a variation of intensity, otherwise in one

---

[2] Gulu District represented one of the three districts comprising the Acholi sub-region in war-affected Northern Uganda; the other two Districts are Kitgum and Pader. Pader District was created in 2001, and several more new districts were broken off from these three and created in 2010 ("Uganda Districts").

way or the other, everybody was found to be traumatised (COWI 68)." During the war,

Gulu District represented the government's base for conducting its

counterinsurgency, and from 1996 on, it became the humanitarian base for the region

(Branch 2). The influx of NGOs primarily resulted from the government's policy of

moving people from the villages surrounding Gulu town into displaced camps (Branch

3). A second influx of NGOs was seen after UN Under-Secretary General for

Humanitarian Affairs Jan Egeland's declaration of Northern Uganda as a humanitarian

crisis (Dolan and Hovil 6). As it was beyond this scope of this research to investigate

conflict and primary schooling in both Gulu and Kitgum Districts, Gulu District

represented an ideal choice for examining the nexus between conflict and primary

schooling, because of the NGO support which enabled the research, and secondly

because it allowed the researcher to consider how NGO supports affected student and

teacher responses.

Research Design

Using a mixed methods approach, this study analyzes quantitative data on

education indicators in 45 Sub-Saharan African countries to explore patterns in the

relationship between education and conflict. A case study approach, using data from

semi-structured interviews with students, teachers, parents, and key informants in

Northern Uganda, complements the empirical analysis by shedding light on the

mechanisms which link these two variables. Combining these methods is more effective

than using either alone, as both approaches clarify different aspects of the research

question.

The quantitative component of this analysis tests the hypothesis that conflict will negatively impact survival, completion, and intake rates using time-series cross-sectional data on educational indicators and armed conflict for 45 Sub-Saharan African countries from 1998-2011, running separate multiple regression tests for each dependent variable.[3] Also tested are the hypotheses that intake rates will improve in the immediate post-conflict period but that survival rates and graduation rates will suffer. Conflict data is drawn from the Uppsala Conflict Data Program's (UCDP) 2012 version of the Armed Conflict dataset, which provides data on all armed conflicts from 1960 to 2011. Over the observed thirteen-year period from 1998-2010, 23 of the 45 countries in the dataset were engaged in at least one internal conflict.[4] During this period, 30 of the 45 countries can be considered post-conflict, meaning that these countries at one point experienced conflict and were not experiencing conflict recurrence for at least one year during the dataset's timeframe.

One concern with the UNESCO data is that many data are missing. This problem is addressed by using the Amelia program, developed by Honaker et al. (2003) and King et al. (2001), to generate imputed values for all missing observations in the dataset. This is an optimal approach in comparison with listwise deletion; in addition to the problem of a large amount of missing information, listwise deletion may produce biased parameter estimates and standard errors, unless the data are missing completely at random. Amelia is a multiple imputation model which is able to deal with time-series, cross-sectional data

---

[3] This analysis uses the UN's classification of countries, excluding Somalia and Zimbabwe because UNESCO has no education data for this study's indicators in these countries. The analysis is limited to primary schools to account for a possible selection bias, as primary school enrollment is much more common than secondary school enrollment in Sub-Saharan African countries. Data from 2005 indicates that the net enrollment rate in primary schools in 2005 was 67.7%, while the gross enrollment rate in lower secondary was 38.6%, and the gross enrollment rate in upper secondary was 22.3% (Dickson et al. 127).[3]

[4] See Appendix B for a summary of conflict data by country.

and generates the missing data based on the observed value in the same row, assuming that the data are multivariate normal and missing at random (Honaker et al. 2003; King et al. 2001). Where the data are more missing for conflict-affected countries, the assumption of "missing at random" is met through including the "presence of conflict" variable. This approach follows both Thyne (2006) and Stasavage (2005) who also use the Amelia procedure to analyze education data. Through imputing the data, five datasets were generated, which included all independent variables and all dependent variables; regressions were run across all five datasets, and the combined coefficients and standard errors are presented alongside the listwise deletion results.

Because the data are time-series and cross-sectional, the possibility for heteroskedasticity and autocorrelation exists. Autocorrelation is found to be present for all dependent variables. To correct for autocorrelation, a lag of the dependent variable (Y at t-1) is included in the model as an independent variable. One caveat to this approach is that it may eat up a large amount of variation in the model. Therefore r^2 values in particular should be interpreted with caution. As residual variances appear to be normally distributed overall, regressions are performed using OLS (Ordinary Least Squares) estimators. Regressions are performed for each of the imputed datasets with the same specifications as the original regressions.

Considering a case study of Uganda, this study examines the mechanisms which link conflict and educational access, attainment, and completion by exploring how schools play both a protective and endangering role for children during conflict. Gerring describes the case study's utility over standard regressions in exploring causal mechanisms: "Case studies, if well constructed, may allow one to peer into the box of

9

causality to locate the intermediate factors lying between some structural cause and its purported effect. Ideally, they allow one to 'see' *X* and *Y* interact" (Gerring "The Case Study: What it is and What it Does"). Single case studies, while unlikely to be theory confirming or disconfirming, are, however, appropriate for refining existing theories.

The research was conducted in the spring of 2013, approximately seven years following what most Northern Ugandans consider to be the end of the war. The principal component of this study involved semi-structured interviews over six weeks of fieldwork with 16 former primary school students and 14 primary school teachers to construct a portrait of primary schooling in wartime Northern Uganda. Interviews with seven parents of students and six key informant interviews with NGO and government education sector officials were used to triangulate data from teacher and student interviews on learning, teaching, and general coping strategies.

The 16 students and 14 teachers interviewed were engaged in 21 different schools during the LRA insurgency in Northern Uganda from 1987-2006. Teachers' lengths of experience in the field ranged from 37 to 7 years; some began their teaching careers in the 1980s, meaning that they had taught for all 20 years of the conflict, while others had begun in the early 2000s, with a few years of conflict teaching experience. Teachers interviewed comprised eight from rural schools and six from urban schools, ten male and four female. Students interviewed comprised eight who had attended rural schools and eight who had attended schools in town, eight male and eight female. Students ranged in age from 18 to 24 in 2013. Most students had spent the entire duration of their primary schooling during the war. Seven parents were interviewed; three parents had children in

village schools during the war, three parents had children in town schools; and one parent had children in both village and town schools.

The research was carried out in three phases. In the first phase, preliminary interview questions were developed before traveling to Uganda. Questions were developed to address different concepts related to the hypothesis; these concepts drew partially from the limited but existing case studies of schools as protective or endangering[5] and previous surveys on education and other development indicators in Northern Uganda.[6] Key informant interviews provided the basis for interviews with former primary school students, primary school teachers, and students' parents. Key informant interviews covered general trends in students' attendance and completion, challenges unique to wartime education, and programmatic strategies to address these challenges, aimed at teachers, students, and parents.

Interview questions were communicated to NGO staff in Gulu, who suggested minor modifications. Interview questions for teachers covered concepts of well-being, attendance, attitudes towards schooling, teaching strategies, the learning environment, social norms and behavioral expectations, relationships with teachers, and parental involvement. Interview questions for students covered similar concepts, in addition to student learning strategies and relationships with peers. Interviews with students' parents covered their children's school performance and well-being, safety, learning, and parents' involvement in their children's education.

---

[5] Specifically, Zakharia 2004; Nicolai & Triplehorn 2003; Kirk & Winthrop 2008; and Bird et al. 2011.

[6] These include: USAID's study *Education and Fragility in Northern Uganda*, 2008; *Education and Resilience in Conflict- and Insecurity-Affected Northern Uganda* by Bird et al. for the Chronic Poverty Research Centre, 2011; *Learning in a War Zone: Education in Northern Uganda* by the Women's Commission for Refugee Women and Children, 2005; *Unprepared for peace: Education in Northern Uganda in Displacement and Beyond* by the Internal Displacement Monitoring Centre, 2011; and *The State of Youth and Youth Protection in Northern Uganda* by Annan et al. for UNICEF Uganda, 2006.

To complete the data collection, the researcher traveled to six primary schools, three urban and three rural, and three secondary schools, one urban and two rural. The selection of schools was determined through discussions with both NGO staff and the local district education officer, who recommended a sample of rural and town public schools. To reach rural schools, the researcher traveled with AVSI (Association of Volunteers in International Service) staff during their field site visits. In addition to transportation, the non-governmental organization AVSI assisted in clarifying interview questions and identifying research participants and a research assistant. The research assistant, with a bachelor's degree in agricultural sciences, experience carrying out field research on post-war agriculture and land issues, and fluent in English and Acholi, translated consent forms from English to Acholi and interpreted during interviews from English to Acholi when necessary.[7]

In light of the sensitive nature of the study, participants were informed about the nature and purpose of the study and encouraged to consider potential risks and to only speak about experiences they felt comfortable sharing. The researcher discussed the sensitivity of interview questions with NGO staff and a research assistant before implementing them and spoke with AVSI staff about the existing psychosocial support systems for students in the event a teacher or student required individual psychosocial attention. During site visits, the researcher spoke with school administrators, either the head teacher or deputy head teacher before beginning interviews to both request

---

[7] To ensure the confidentiality of participants' responses, the research assistant was asked to sign a confidentiality form. Confidentiality and sensitivity towards participants were ensured in a variety of additional ways. Consent forms in English and Acholi were used to communicate the purpose and objectives of the research and clearly communicated that participating in the research was optional. In addition, the recording device was kept locked in a storage unit only accessibly to the researcher, and names were coded in field notes.

permission to explain the purpose of the research and inform them that the interviews would cover sensitive topics.

In the final phase of the research, responses to all interviews were transcribed and analyzed through open coding. Themes were assigned to sets of transcribed texts and then organized into categories. Data from interviews were complemented by existing literature on the subject, studies on education in Northern Uganda, and NGO program materials.

CHAPTER TWO: CONTEXT AND CONCEPTUAL ORIENTATIONS

This chapter overviews the different schools of thought and research which have explored the nexus between conflict and education and seek to explain how education outcomes suffer in war-torn countries. First, contemporary trends in armed conflict and overall developmental consequences of conflict are reviewed, followed by the effects of conflict on education. These effects are organized as direct, visible effects, such as attacks on schools; indirect effects to educational indicators on participation, attainment, completion, and education spending; and psychosocial effects to students and teachers, through discriminatory policies or constant fear of attending school. This final section on psychosocial effects also identifies the role that schools play in protecting or endangering students' well-being during conflict by either normalizing or rejecting the norms of a society at war. Finally, the end of this chapter discusses the cultural production theory used to frame the case study.

Corresponding with findings in the literature, this study argues that while educational participation may not dramatically be affected by conflict or in countries emerging from conflict, progression through the educational system and educational completion are negatively affected. Students may in fact be more present in schools than elsewhere in the community due to the physical and social safety schools provide. However, the impact of conflict will be apparent on survival and completion rates as students are pushed through to the next grade without attaining a quality education.

Unpacking the mechanisms which link conflict and educational access, attainment, and completion, this study specifically considers how violence against students, teachers, and schools negatively affects school culture and learning and teaching, while recognizing that schools may also play a protective role for children during conflict.

Trends in Contemporary Armed Conflict

Over the past half-century, intrastate conflict has become the most common form of armed conflict, most of which has been fought in Asia and Africa (Themnér and Wallensteen 512; Kalyvas and Balcells 2, 5). The post-Cold War transition has caused a change in the technology of warfare as weak states have lost support from the two superpowers and become more vulnerable to weak rebel groups. As a result, the current landscape has become dominated by either conventional warfare using heavy armor or symmetric non-conventional warfare, in which both state and rebels are weak and use less military technology (Kalyvas and Balcells 3).

Further, in the post-Cold War era, the number of ongoing conflicts has declined, while the overall severity of armed conflict has generally declined since World War II. The 2000s was the least conflict-ridden decade since the 1970s (Themnér and Wallensteen 509). In 2012 the number of armed conflicts (with at least 25 battle-related deaths) was at 32, down from the previous year's 37, with three new conflicts in India, Mali and South Sudan, three restarted conflicts, as well as four new peace agreements (Themnér and Wallensteen 513).

However, despite the fact that post-war conflicts have generally been less deadly in terms of the absolute numbers killed and the rate of deaths, one-sided violence against civilians during conflict has persisted. Eck and Hultman find that, in general, the post-

15

Cold War period has been characterized by low-level violence, but that this violence is punctuated by spikes of one-sided violence against civilians (Eck and Hultman 238). They draw from the UCDP's definition of one-sided violence which is "the use of armed force by the government of a state or by a formally organized group against civilians which results in at least 25 deaths per year" (Eck, Sollenberg, and Wallensteen 136). One-sided violence includes genocidal violence but also incidents of terrorism, including individual and mass executions or public bombings (Eck and Hultman 235-236). Africa and central Asia are the regions with the highest amount of one-sided violence; Africa accounts for as high as 93% of the one-sided fatalities (Eck and Hultman 239).

Several authors address the mechanisms behind violence directed at civilians. At the group level, Humphreys and Weinstein attribute variation in violence to rebel groups' internal structures, with groups who are unable to police their members likely to commit higher levels of indiscriminate violence (429). Highly relevant to the Uganda case is Hultman's argument that rebel groups who are losing battles pursue violence against civilians to inflict political and military costs upon the government (205). In their study on Vietnam, Kalyvas and Kocher find violence to be a function of territorial control, with higher levels of indiscriminate violence committed by U.S. government and South Vietnam government forces in areas predominantly controlled by rebels.

Long-Term Developmental Effects of War

The developmental consequences of war are unclear.[8] Miguel and Roland (2006) find that heavily-bombed areas by the U.S. in the Vietnam war experienced no detrimental long-term economic effects; Justino and Verwimp's 2006 study echoes this

_____

[8] Justino (2010) provides a comprehensive review of the literature on the development consequences of war; some of the sources she cites are reviewed here in addition to others.

finding in Rwanda. In their large-n study, Chen Loayza and Reynol-Querol (2008) find rapid post-war recovery of indicators of economic performance, health, education, and political development. However, other studies have focused instead on long-term destructive effects (World Bank 2003; Fosu and Collier 2005; Collier 1999). Kang and Meernik (2005) find generally negative economic effects from war, while Bayer and Rupert (2004) find that overall, civil wars are followed by a decrease in bilateral economic trade and may have repercussions on future trade.

Other studies examine political instability and insecurity in property rights (ERD 2009; OECD 2009) and the deterioration in the quality and functioning of institutions (Blattman and Miguel 2010). Justino points out that recent research on the micro-level effects of violent conflict has demonstrated negative effects on education, health, and individuals' and households' livelihoods decades after the conflict (3). Yet, these micro-level effects are still largely under-researched, likely due to the scarcity of micro-level data.

Looking at the impact on public health, Ghobarah, Huth, and Russett examine how civil wars "kill and maim" civilians long after conflict termination. They find that the death and disability that occurred in 1999 as an indirect effect of civil war from 1991 to 1997 was approximately equal to deaths incurred from civil war in that year; furthermore, this death and disability is primary concentrated in the civilian population, especially among women and children (189). This study argues similarly that conflict affects educational attainment and completion not only during but following conflict, as the during-conflict effects on teaching and learning and social and economic

17

infrastructure snowball into longer-term effects on individual educational attainments and human capital formation.

Direct Effects of Conflict on Schooling: Types of Violence Against Students, Teachers, and Schools

The changing nature of armed conflict in the post-Cold War era has visibly affected schooling as well as public health outcomes, as schools, students, and teachers have become targets during armed conflict, especially civil war. The most obvious manifestation of the negative impact of conflict on schooling is the destruction of school infrastructure. Iain Levine suggests that schools may be targeted because they represent the state; in areas with a large rural population, such as southern Sudan, schools, along with public health centers, may be the only targetable public buildings (Nicolai and Triplehorn 2). Anna Obura, in a study on the reconstruction of the education system in Burundi, describes how schools are often prime targets during war because they represent political systems and peace. In the case of East Timor, violence in 1990 destroyed 80-90% of all school buildings and infrastructure. In 2001 Israeli soldiers attacked 100 schools in the Palestinian Territories, using rubber bullets, live ammunition and tear gas (Nicolai and Triplehorn 2).

Teachers may be targeted directly because of their identities. In Rwanda, not only were schools destroyed but 75% of all teachers were either killed or imprisoned as a result of the 1994 genocide (Cole and Barsalou 7). Janet Shriberg, in a dissertation on Liberian teachers, describes instances of teachers being intentionally targeted by former students. One teacher she interviewed explained: "Former students might have

recognized us because we gave them a grade; if it was bad, well, they could have shot us right away" (qtd. in Shriberg 115).

The most comprehensive study on direct violence against education is Brendan O'Malley's 2007 *Education Under Attack*. Although more recent attempts to document attacks on education have been made, data is scarce due to the difficulty of collecting data amidst conflict as well as questionability of media and government accuracy and bias. O'Malley describes a range of types of attacks carried out on educational institutions including "sophisticated military style operations such as the Beslan school tragedy to bombings, assassinations, detentions, torture, and threats" (13).[9] These attacks have short-term impacts, such as school closures and disruption to schooling, psychosocial impacts on students and teachers, as well as a long-term impact through "disruption in education/employment cycles" and the "degradation of the quality and relevance of higher learning" (UNESCO 13).

Complementing UNESCO's research, the Global Coalition to Protect Education from Attack published in 2012 a report focusing specifically on the military use of schools by state armed forces and non-state groups. The uses of schools are numerous, as bases and barracks, defensive and offensive positions or staging areas, sites for weapons and ammunition storage, detention and interrogation centers, military training centers, illegal recruitment of child soldiers, and temporary shelters (22-26). In more than half of conflict-affected countries, government forces use schools for military purposes, while in over a third, non-state armed groups use them (14). In Syria, both government forces and

---

[9] A 2010 comprehensive study by UNESCO, *Protecting Education from Attack*, served as a follow-up to O'Malley's study and addressed gaps identified in O'Malley's 2007 report. UNESCO in 2010 also published a follow-up series to O'Malley's report with the same title, to document the "extent, nature, and impact of incidents" from January 2007 to July 2009 and protection measures for education personnel.

anti-government forces have used schools as barracks and bases, while government forces have used schools as temporary, unofficial holding centers (24).

The effect of the recruitment of child soldiers on educational attainment and completion is especially complex, as it not only disrupts students' education but it also makes it difficult, for those who are able to return home, to continue schooling due to lost years of education and age. Further, their peers and teachers may fear, isolate, and/or stigmatize them when they return. [10] This has been certainly problematic in Uganda, where, as Akello et al. describe, in many cases upon reintegration, children and youth experience stigma associated with being a former rebel, as community members and families are unable to accept them as entirely innocent. In focus group discussions, children described harassment and verbal abuse, such as being called a murderer, killer, and/or a thief, upon their return (234). Similarly, Annan et al. find that most returnees experience a positive homecoming with their families, but that 34% have problems with neighbors or community members (Annan et al. 651).

Mechanisms Linking Direct and Indirect Effects of Conflict on Education

Violence and threats of violence against students, teachers, and schools are likely to negatively affect students' participation, attainment, and completion in schooling. This may play out through several mechanisms. First, violence may lead to physical destruction of schools, school closures, and deaths and abductions of students and teachers. Violence may also affect decisions regarding returns to education, as, facing risks of abduction and death by commuting to and attending school, students experience

---

[10] Nicolai and Triplehorn (2009) discuss cases of child recruitment in southern Sudan, the Democratic Republic of Congo, Sri Lanka, Northern Uganda, and Burundi. The Global Coalition to Protect Education from Attack discusses cases of child recruitment in Colombia, by the FARC and the ELN.

increased opportunity costs to attend school and continue schooling. The displacement of students due to conflict may also contribute to decreased enrollment, as civilians escape to neighboring countries.

Arguments concerning returns to education can also be differentiated by gender. Justino proposes that, during wartime, this may mean prioritizing boys' education over girls', as educated males may be more likely to find jobs than educated females (12). Girls may also be deterred or discouraged from attending school by their parents, where sexual violence against females has been prevalent, as in Pakistan, Tajikistan, and Afghanistan (UIS 6; UNESCO 71). In fact, Shemyakina finds that in Tajikistan, exposure to conflict is associated with a large and negative decrease in the enrollment of girls, with little to no effect on the enrollment of boys (Shemyakina 16; Justino 8).

Further, conflict may affect household labor allocation decisions, as children may be withdrawn from school by their parents to replace dead, injured, or physically or mentally disabled adult workers. This mechanism has been less examined in the conflict and education literature; however, it has been widely studied in the development economics literature. For example, Jacoby and Skoufias (1994) find that agricultural households in India use child labor during periods when school is in session and incomes are insecure or low, and Thomas et al. (2004) find decreased educational spending following the 1998 financial crisis in Indonesia. Considering the effect of conflict, Rodríguez and Sánchez (2012) find that violent attacks in Colombian municipalities were significantly associated with the probability of school drop-outs and an increase in the percentage of children in the labor market. Death of parents may also affect children's abilities and decisions to continue schooling. In Uganda, several students explained that

21

they had to stay home for periods of time after having lost a parent, as they were unable to focus in school and/or unable to find enough support for school fees.

The Empirical Evidence

This section discusses the empirical evidence on the effect of conflict on education. The existing empirical studies use indicators of participation, most commonly enrollment and attendance, attainment, and average years of education, with a focus on indicators of participation. A handful of country-level empirical studies also exist, primarily using indicators of attainment. Overall, the results from these studies indicate a negative effect of conflict on education.

Participation

A 2010 report by the Education Policy and Data Center (EPDC) considers sub-national data in 19 conflict and non-conflict regions in conflict-affected countries on weighted net attendance rates, primary gross enrollment rates, rate of growth in the number of pupils, pupil-teacher ratios at the primary level, and secondary gross attendance rates. The authors compare school participation in conflict- versus non-conflict-affected regions within countries as well as trends over time. The study's major finding, that attendance rates are lower in conflict- versus non-conflict-affected regions by an average of eleven percentage points, is not too remarkable, as the range of this difference is broad across countries (EPDC 1). This wide range suggests that low attendance rates may have already been low and vulnerable to further decline before conflict onset.

Further, over time, primary attendance rates, enrollment rates, pupil numbers and pupil-teacher ratios in conflict-affected regions do not exhibit a dramatic decline in

22

comparison with non-conflict-affected regions. In Côte d'Ivoire, for example, attendance rates decline in the conflict-affected North; however, they also decline in non-conflict-affected regions of the country (EPDC 12). In the Central African Republic and the Democratic Republic of Congo, primary attendance in "secondary" conflict-affected regions are lower in 2000 but converge with several of the non-conflict-affected regions over time.

A more anomalous case is Senegal, where the primary conflict-affected region exhibited the highest gross attendance rates throughout the entire ten-year period of analysis, which includes the conflict period, from 2000-2001 and 2003, and the post-conflict period. Attendance rates continued to rise throughout the conflict period (EPDC 15). In the 2012 Human Security Report, Mack et al. point out, however, that political violence in Senegal was very low, averaging 40 battle deaths per year (97). These findings point to the need for a more nuanced analysis of the level of conflict, by taking into consideration a measure of conflict intensity, as the number of battle deaths in civil war encompass a wide range. The EPDC report's findings also reflect the problem that measures of attendance and enrollment may not accurately demonstrate the effect of conflict on children's education.

Participation and Attainment

Using household survey data, the UNESCO Institute for Statistics (UIS) research team's 2010 report, *The Quantitative Impact of Conflict on Education*, considers educational indicators on the proportion of the population with formal education, the average years of education attained, and the literacy rate in 25 conflict-affected countries. The authors' overall finding is that:

cohorts that were of school-going age during a time of conflict have lower educational attainment that persists over time, indicating that these children generally do not resume their education after a conflict to attain levels of education similar to non-exposed cohorts (4).

While participation was severely affected in Afghanistan, Rwanda and Uganda, and several other countries, in some cases, the UIS observed little to no impact on children's participation levels in schooling but a significant impact on progression.

Several Sub-Saharan African countries exhibit this trend. For example, in Chad, during civil conflict in the late 1970s, the educational attainment of males decreased by almost half a year (UIS 56). In the case of Rwanda, children affected by the genocide "completed one-half fewer years of education, 18% less than children who were not affected" (Akresh and de Walque 2008). Similar trends can be observed in the cases of Burundi, the Democratic Republic of Congo, Sierra Leone, and Somalia. The authors also recognize gendered effects—for example, during conflict periods in Ethiopia, Chad, and Mozambique, the educational attainment of males was more negatively affected, while in Zimbabwe, Uganda, the Democratic Republic of Congo, Chad, and Eritrea, girls exhibited higher declines in attainment and access to formal education during conflict periods.

Importantly, several countries do not exhibit these declines; these countries include Colombia, Côte d'Ivoire, the Central African Republic, Ethiopia, Tajikistan, and Bosnia and Herzegovina. In these cases, the authors argue that it is necessary to disaggregate data at the subnational level to consider conflict-affected regions and more vulnerable populations (UIS 5). However, this argument is not supported in all of the authors' cases. In the case of Ethiopia, the country's most war-affected region, Tigray,

exhibited higher than average gross enrollment ratios during the Eritrean-Ethiopian war and higher than average years of schooling.[11] In the 2000s, both of these indicators grew less rapidly, possibly demonstrating a delayed negative effect of conflict (UIS 76-77).

Comparing the UIS and EPDC studies, it is clear that the choice of education indicator changes how severely conflict appears to affect schooling. The EPDC considers educational participation primarily through enrollment rates and attendance rates, finding that over time indicators on participation do not decline dramatically in conflict- versus non-conflict-affected regions. The UIS looks at participation through the proportion of the population without formal education as well as educational attainment by looking at average years of education, finding the effect on progression through schooling to be more pronounced than the effect on participation.

Attainment

The UIS study's finding that educational attainment of conflict-affected cohorts is significantly affected by conflict is supported by several micro-level studies. Akbulut-Yuksel's 2009 study on city-level Allied bombings in Germany finds long-term negative consequences in the educational attainment of individuals living in cities affected by bombings, noting the destruction of schools and the absence of teachers as the driving mechanisms. Sixty years later, these individuals in cities affected by bombings had completed .4 years fewer of schooling on average, in relation to cities not affected, and individuals in the most hard-hit cities had completed 1.2 years fewer of schooling (4). In Cambodia, Merrouche finds that land mine exposure is significantly associated with a

---

[11] These results also suggest differences between the effect of civil versus interstate conflicts. This study considers only internal conflicts; however, an analysis of coups and interstate conflicts would be one avenue for future research to determine the differential effect of conflict type.

loss of years of education (3). Finally, Alderman, Hodinott, and Kindsey find that Zimbabwean children affected by the civil war in the 1970s both completed fewer grades of schooling and/or started schooling later than those not affected (9).

Participation and Completion

In addition to these comparative statistical studies, four econometric studies consider the relationship between conflict and educational indicators. The most recent of these was produced by Gates et al. for the World Bank's 2011 World Development Report and analyzes the effect of civil conflict on the proportion of the population completing primary/secondary school and the enrollment rate in primary and secondary school in developing countries. In their cross-sectional analysis of indicators over a period from 1992-2005, the authors find that "a war with 10,000 battle deaths is associated with a relative decrease in attainment of about 7.5 percentage points" (33). However, in their fixed-effects regression models over a period from 1995-2005, they find conflict to be negatively associated with enrollment rates, but not at a statistically significant level (43). The authors make the caveat that, as conflict is largely part of the fixed effect in countries that experienced conflicts over the entire period of analysis, these models may yield overly conservative estimates.

Participation

A 2008 World Bank study removes the focus from the conflict period and considers the post-conflict recovery of a spectrum of social indicators. The authors use primary and secondary school enrollment as their education indicators, comparing seven-year periods of peace before and after civil conflict. The authors also compare countries affected by war with control groups of both similar developing and same-region countries

26

which are not war-affected. They find that primary school enrollments in conflict

countries improve not only with respect to their pre-war level but also with respect to the

control group. However, secondary school enrollments in conflict-affected countries,

while higher in the post-conflict than the pre-conflict period, remain significantly lower

than enrollment rates in the control group countries (75).

This study's findings point to the need to distinguish between primary and

secondary educational indicators, as NGOs may emphasize primary over secondary

school programming. This may lead to high primary enrollment rates during conflict, but

low completion rates, and thereby low secondary school enrollment rates during and

post-conflict.

Participation

Lai and Thyne consider the performance of primary, secondary, and tertiary

enrollment rates during and following civil conflict from 1980-1997. They find that

"across all the models [they test], states in civil war experience a 1.6% to 3.2% decrease

in enrollment, depending on the level of education" (284). In addition to considering the

impact of conflict-year on school enrollment, they also include a dynamic post-civil war

measure and find that "decreases in enrollment do not continue once civil war is over …

by the end of a civil war, enrollment is likely to have reached its nadir" (Lai and Thyne

285). Their post-civil war measures affirm the findings of the World Bank study that

primary school enrollment rates, at least, improve in the post-war period.

Participation and Completion in Sub-Saharan Africa

In his analysis, Poirier adds a measure of completion in addition to participation.

He focuses specifically on the effects of armed conflict on schooling in Sub-Saharan

Africa from 1950-2010, drawing his education data from Barro and Lee's 2010 dataset. He uses as his education indicators the rate of children not in school, the primary school completion rate, and the secondary education enrollment rate (342). He finds that the rate of children not in school and secondary enrollment are significantly impacted by the presence of conflict (but not intensity) while the primary completion rate is not (347). However, the Barro and Lee primary completion indicator may not be the most appropriate to measure completion, as it measures the ratio of students who completed primary schooling but did not enter secondary schooling (Barro and Lee 6). Therefore, a decreasing primary completion rate would not necessarily indicate that fewer students were completing their education but that fewer were not foregoing secondary schooling.

Educational Expenditures

In addition to a negative impact to indicators on educational participation and attainment, findings in the literature also point to negative impacts to governmental funding for education (Adeola 1996; Lai and Thyne 2007). Lai and Thyne offer a modification to the guns and butter theory that military spending draws away from social spending; they hypothesize that during periods of civil conflict, increases in military expenditures will be associated with decreases in educational expenditures, as the government devotes as many resources as possible towards preventing state collapse (278).

Lai and Thyne find that educational expenditures decrease during periods of civil war; however, they do not find military expenditures to be a significant predictor for this decrease. The authors suggest that the underlying mechanism for the reduction to

educational expenditures is not funneling of money towards military expenditures but rather the overall disruption of a state's ability to provide social services. They point to the case of Sudan, where since 1983, the civil war has resulted in over 2 million deaths, displacement of over 4 million people, and destruction of the education system, illustrated by a literacy rate of 10-20% among the local population and an average class size of 94 pupils per teacher (Lai and Thyne 284; Shalita 1994).

School Culture and Teaching and Learning

In addition to effects on students' primary school participation, progression and completion, indirect effects of conflict on education may also refer to non-quantifiable psychosocial effects on the social fabric of the school and surrounding community and teaching and learning. Schools may reflect the culture of a society at war, by reinforcing pernicious social realities through oppressive curriculum, language policies, or restricted access to schooling. At the individual level, as students and teachers experience acute psychosocial stresses of learning in a war zone—constant disruptions to their learning and fear of attending school—their capacity to learn and their value for learning will decline over time. In some cases, students may be pushed through to the next grade, but over time, cohorts of students will decrease in number.

Schooling as Endangering

In a study on secondary schooling in wartime Lebanon, Zakharia discusses the implications of a societal culture of war for school culture. She finds that Lebanese schools focused on students' and teachers' personal security over academic standards and a sense of normalcy. Teachers focused on passing students on to the next grade rather than the content of their education (111). Schooling was characterized by disruptions and

security threats, through school closings and student involvement in militias (112). Yet, students interviewed indicated that they still looked forward to attending school, mostly because of their friendships. School also signified for them a return to normal life from school disruptions (111). However, Zakharia ultimately concludes that "secondary schools' ability to maintain the norms of security, authority, stability, academic standards, and to foster future oriented values were severely challenged, reflecting the reality of a wider political situation" (115).

Schools may reflect the society at war even more directly, as social realities play out through curriculum and pedagogy, language policies, restricted access to schooling, and school governance. Leading up to conflict, curriculum and pedagogy may be used to strengthen divisiveness along identity lines, as in Rwanda before the 1994 genocide, Sri Lanka throughout the 20th century, and Nazi Germany, while the post-conflict reform of these practices can become entrenched, for example, in Bosnia-Herzegovina (Obura 18; Perera 399-406; Freeman et al. 227). The use of language as a repressive state tool has been demonstrated in the case of Sri Lanka, where students remain segregated by language of instruction (Davies 395-396). Nicolai and Triplehorn add that schools may also reflect violence through the use of corporal punishment. They find that corporal punishment has been found to increase in schools in conflict zones: "in … West Timor … teachers' use of physical punishment, ridicule, and humiliation to control and disciple children appears to be connected to the stresses they themselves experience" (5).

Schooling as Protective

However, the reverse may also be true: schools may be the safest places for children during conflict, through providing psychosocial protection, interaction with

supportive adults and other children, and physical protection. Marc Sommers writes: "One of the primary misfortunes of youth living outside schooling during and after wars is that they lack access not just to education but to the array of protections that schools can provide" (36). Graça Machel, former first lady of Mozambique and South Africa, authored a milestone UN report in 1996, recognizing that schooling could provide children a sense of normalcy during conflict through interactions with students and teachers, development of "new skills and knowledge necessary for survival and coping," and symbolizing pride and hope for the future for the entire community" (43).

Winthrop and Kirk review the literature on schooling, armed conflict, and children's well-being. They summarize the primary arguments:

1) That education restores a sense of normalcy to children amidst chaos through routine;[12]
2) that it helps them cope by providing much-needed relationships with other children and adult mentors;[13]
3) that schools can provide children a safe space through teaching and learning methods which promote the child's participation and learning needs (such as health and safety);[14] and
4) that going to school provides children hope for an alternative future.[15]

Winthrop and Kirk's main criticism of the existing literature is that most of these arguments fail to pay enough attention to the variables of teaching and learning and therefore why the school setting, rather than a community center or other setting, is especially equipped to play these roles (640-641). Specifically, while acquiring

---

[12]See Machel (1996), Pigozzi (1996), Apfel and Simon (2000), Bruce (2001), Sinclair (2001), Nicolai and Triplehorn (2003), Bragin (2004), Buckland (2005), and Kos (2005) (cited in Winthrop and Kirk 2011).

[13] See Machel (1996), Apfel and Simon (2000), Arafat and Boothby (2003), De Berry (2003), Loughry and Eyber (2003), and Kos (2005) (cited in Winthrop and Kirk 2011).

[14] See Machel (1996), Pigozzi (1996), Sinclair (2001), Nicolai and Triplehorn (2003), Bragin (2004), and Nicolai (2004) (cited in Winthrop and Kirk 2011).

[15] See Apfel and Simon (2000), Nicolai and Triplehorn (2003), Delap (2005), and Kos (2005) (cited in Winthrop and Kirk 2011).

knowledge and skills is generally recognized as valuable, there is not enough attention to "social learning," or "a range of knowledge, attitudes, and skills that children can learn in school that will help them live better and safer lives" in the context of conflict" (642). They also recognize that the "relationships" argument may fall short by assuming that children's relationships in school are always positive, when there are, in fact, "serious risks during and after armed conflict of abuse and exploitation of students by teachers and their peers" (Winthrop and Kirk 641; De Berry 2003; Leach and Mitchell 2006).

Winthrop and Kirk's interviews with Liberian refugee primary school students and teachers in Sierra Leone, Eritrean refugee primary school students and teachers in Ethiopia, and Afghan primary school students and teachers in Afghanistan bring out both positive formal and non-formal forms of learning. Students in Ethiopia and Sierra Leone emphasized the importance of learning both literacy and numeracy skills as well as knowing the difference between "good and bad" and "how to protect themselves" (650, 653) Students in Afghanistan valued the traditional subjects of math, language, and Islamic studies, but emphasized social learning over these, speaking especially about the importance of having good manners and moral character (651).

Winthrop and Kirk discuss students' ideas of how other students and teachers undermined their learning and well-being, recognizing that the school environment can be negative as well as positive. However, they also discuss students' strategies to shape their own school experiences, such as helping their younger classmates, negotiating their many out-of-school responsibilities and homework, asking questions of their teachers, and even pointing out when they had noticed mistakes in their assignments. Ultimately,

32

they conclude that "learning is both cause and effect of remarkable agency on the part of the children who are incredibly motivated to learn" (658).

Cultural Production Theory

Cultural production theory provides a relevant frame for analyzing how students and teachers shape school culture during conflict. Cultural production theorists acknowledge the possibility that social norms will be reproduced within the school context; however, they ultimately view schools as "sites of social interactions where meaning is constructed in a particular context," thereby opening up possibilities for change (Adely 355). Schools therefore might be understood as conflictual domains: they reflect simultaneously "coercive aspects of social reproduction" and "creative forces of cultural production" (Mosselson 96.) This framework thus provides a valuable tool for the case study analysis by allowing a consideration of how schools in Northern Uganda both reflected and rejected the norms of a society at war.

Gaps in the Literature

Among the empirical literature, findings that conflict affects educational attainment but not participation corroborate the hypothesis of this study that survival rates, completion rates, and graduation rates will decrease during conflict. Specifically, Gates et al. find that conflict is significantly associated with a decrease in educational attainment by 7.5 percentage points, while the UIS study reports that the conflict-affected cohorts have lower attainment in comparison to non-conflict affected cohorts (Gates et al. 33; UIS 5). However, the EPDC report finds widely dispersed effects on enrollment, possibly indicating that these levels were already high or low before conflict onset (1). Further, the UIS study finds in several cases that while educational attainment is

negatively affected, participation in schooling is not (UIS 5). Conversely, in their study,

Lai and Thyne find primary school enrollment to be negatively affected; however, an

inclusion of indicators on attainment and completion might reveal a larger negative effect

of these indicators (284).

Overall, these results suggest that the existing empirical studies have measured

education in too-narrow terms, by considering enrollment and attendance rather than

more rigorous indicators of progression and completion. This study adds to the existing

literature by including additional measures of progression and completion—survival

rates, completion rates, and intake rates—and focusing specifically on Sub-Saharan

Africa, a region which has exhibited high rates of armed conflict in the past few decades

(Themnér and Wallensteen 511). This study hypothesizes that conflict will lead to a

decrease in survival and completion rates. Intake rates will decrease alongside survival

and completion rates during conflict, as schools are unable to provide safe access to

schooling for many children, but the decrease will not be as dramatic.

As countries emerge from conflict, intake rates will recover as students are able to

return to school. However, survival rates and completion rates will continue to decline

due to mechanisms at all levels—as students and teachers see limited opportunities for

students' continued education or employment opportunities; school administrators and

local communities struggle to rebuild schools due to limited resources (in terms of both

human and financial capital); and the state struggles to rebuild public infrastructure and

efficiently allocate public spending.

This post-conflict effect on intake rates, however, may be highly dependent on

gender. For example, a continued decline in the intake rate for girls might be expected in

34

countries where sexual violence against females was widespread. For example, in the Democratic Republic of Congo, where rape has been very commonly used as a weapon of war, the educational attainment of girls has declined in post-conflict as compared to pre-conflict periods (UIS 63). To test for this possibility a gender parity measure for intake rates is included.

Unwrapping the mechanisms which link conflict and educational access, attainment, and completion, this study refers to the case study literature on the direct effects of violence against students, teachers, and schools and the subsequent psychosocial effects of conflict on school culture, teaching and learning, and individuals' evaluations of the returns to schooling. O'Malley's description of the wide-range of types of violence, from bombing and shelling to occupation of schools and murder and abduction of students and teachers, depicts the stark reality of violence against students, teachers, and schools. Interviews in Uganda on the effect of the war on primary schooling were dominated by discussions of violence and the threat of violence. One interviewee described threat to life as the greatest challenge to primary schooling during the war:

> … children would be abducted on their way to schools, some were even abducted from schools, teachers were killed during the insurgency, infrastructures were destroyed including textbooks, even support supervision by us to move to schools was not easy, because we are supposed to monitor to ensure quality of service delivery but this was not easy during this time (Interview with the author, 3 March 2013, Gulu, Uganda).

The literature on the resulting psychosocial effects is limited, but descriptive. This research follows Zakharia's case study approach that examines the effect of conflict

on teaching and learning as well as school culture, finding that schools in Lebanon prioritized students' safety, but at the expense of academic learning (115). Winthrop and Kirk's emphasis on the ways in which schools support children's well-being, specifically through non-formal or social learning during periods of conflict, also informs this study (642). While academic learning and progression through schooling may be severely disrupted, schooling may still provide a protective element for children. This study fills a gap in the literature by exploring the concept of schools as both endangering and protective at the individual-level as well as the macro-level. Considering mechanisms linking conflict and educational access, attainment, and completion, this study hypothesizes that the culture of primary schools in Northern Uganda, shaped largely by students and teachers, both reflected the norms of a society at war and provided a normalizing environment for children.

CHAPTER THREE. PRIMARY SCHOOL INTAKE, SURVIVAL, AND COMPLETION IN SUB-SAHARAN AFRICA

This chapter discusses the effect of conflict on educational indicators, specifically of attainment and completion, at the macro-level, and tests the hypothesis that conflict will negatively impact survival, completion, and intake rates, using time-series cross-sectional data on educational indicators and armed conflict for 45 Sub-Saharan African countries from 1998-2011.[16] Mechanisms at multiple levels may account for this decrease: violence and threats of violence against students, teachers, and schools; acute psychosocial stresses of learning in a war zone experienced by students and teachers—constant disruptions to their learning and fear of attending school; and indirect effects on school capacity, such as state collapse and displacement of students, teachers, and schools.

Also tested is the hypothesis that intake rates will improve in the immediate post-conflict period but that survival rates and completion rates will suffer, reflecting renewed access to school but persistently low quality and students and teachers' perceptions of limited opportunities for students' continued education or employment opportunities. Gender parity measures are included to test the hypothesis that gender parity for intake rates will also decline in the post-conflict period, reflecting the targeting of girls and

---

[16] See appendix A for a summary of data points.

women during the conflict period and a resultant post-conflict decrease in girls' access to schooling.

Dependent Variables: Measuring Educational Intake, Attainment, and Completion

Education indicators are drawn from UNESCO's Institute for Statistics (UIS) database. Because of the dearth of outcome and process variables[17] and the inadequacy of enrollment/participation data, attainment and completion data are used to proxy for educational quality. Attainment and completion indicators are commonly used proxies for educational quality—arguably, "schools, in general, will not retain large proportions of students to the final grade unless the education experience has quality" (Dickson et al. 109).

Survival rates are among the most frequently used proxies for educational quality (Dickson et al. 109). Specifically, UNESCO's Educational Development Index, which measures overall progress towards goals agreed upon in the Dakar Framework, uses survival rates to proxy for educational quality ("The Education for All Development Index," 306). This study uses survival rate to the last grade of primary, which indicates the portion of enrolled students who are expected to reach the final grade, usually fifth. Dickson, Hughes, and Irfan, through the International Futures modeling system at the University of Denver, have also found that survival rates correlate highly with assessment results across countries, when controlling for GDP/capita and income distribution (109). Further, in their comparative analysis of 25 countries, the UIS found that conflict had a greater impact on students' progression through schooling (attainment) rather than their overall participation (i.e., proportion of students without formal education). However,

---

[17] See appendix A for a description of other major education datasets.

the authors measure progression not by survival rate, but by calculating the average number of years of education attained over time.

Graduation rates and the gross intake rate to the last grade of primary are used to measure completion. Where data on survival rates do not exist, completion rates are a useful indicator of primary education outputs. Ultimately, however, survival rates are a more useful indicator as they are measured in relation to a given cohort rather than in relation to a theoretical population; thus, they provide a clearer measure of internal school efficiency as they predict the likelihood that a particular pupil will survive to a particular grade while completion rates move in relation to the size of the population. While the completion rate is calculated in relation to the population of theoretical primary graduation age, completion rates are still useful indicators of quality as they measure an education system's capacity to provide graduation to the school-age population and therefore opportunity for continued secondary schooling. Certainly, these numbers do not tell us whether graduates continue on to pursue secondary education or are prepared to do so, but they do measure whether the system can provide graduation to its students— as Bloom points out, "completion is essential, as succeeding in today's world requires ever-higher levels of knowledge and training" (2).[18]

Laurie Cameron, in a study on completion rates, similarly points to the completion rate as a "core indicator of an education system's performance." She refers to the World Bank's rationale for using the completion rate as the primary indicator of quality:

---

[18] In their analysis, Bruns, Mingat, and Rakotomalala found that, in the 1990s, the twenty highest-performing low-income countries exhibited completion rates which increased annually at an average rate of 2.38 percentage points (Bruns et al. 2003; Dickson et al. 2010, p. 110).

> [b]ecause it measures both the coverage of the education system and the educational attainment of students, the primary completion rate is a more accurate indicator of human capital formation and the quality and efficiency of the school system than are gross and net enrollment ratios. It is also the most direct measure of national progress toward the Millennium Development Goal of universal primary education. (qtd. in Cameron 4)

Cameron also notes that like survival and enrollment rates, completion and enrollment rates may move in opposite directions, if access increases at the cost of efficiency. If completion and survival rates are persistently low, this might indicate that a country has not moved beyond the provision of entry-level access (5-6).

For this reason survival and graduation rates cannot be analyzed in isolation—intake rates should be included alongside an analysis of survival rates, as an indication of the general level of access to primary school.[19] Intake rates are preferred to enrollment rates, because intake measures access to schooling while enrollment measures participation. Data exists for both gross and net intake rates. Gross intake rates frequently exceed 100%, as they include all new entrants against the official primary-school aged population—indicating that new entrants comprise over-age or under-age students. Net intake rates calculate only those new entrants who are of official primary school-age and are therefore a more appropriate measure of access.

All education variables are drawn from UNESCO's database, accessible online at http://data.uis.unesco.org. Tables 1-3 present definitions of the variables and summary statistics. It is important to recognize that because UNESCO collects data from national educational sources, the accuracy of the data depends on national authorities (although UNESCO provides some quality control).

---

[19] Dickson, Hughes, and Irfan suggest a 1.2 percentage point annual increase in survival rates and a 2.2 percentage point annual increase in intake rates as appropriate benchmarks for developing countries (2010, p. 113).

One further concern with the UNESCO data is that many data are missing. There are several ways to deal with this problem. One approach is through listwise deletion, the approach taken by Lai and Thyne (2007). They acknowledge the missing UNESCO data, arguing that the missingness should not substantially bias their results, as the data are not disproportionately missing from periods of civil war in their analysis. A second approach is through multiple imputation. In his paper on democracy and education spending in Africa, Stavasage runs tests using both listwise deletion and multiple imputation estimates, using the Amelia program developed by Honaker et al. and King et al. He finds his independent variable, electoral competition, to be significant in both models (23-24). Likewise, Thyne analyzes both imputed and non-imputed data on educational expenditures, enrollment levels, and literacy rates, finding his results to be almost identical (742). This study takes the same approach, running both listwise deletion and multiple imputation models.

Independent Variables: Measures of Armed Conflict

The impact of the independent variable, armed conflict, is tested using a dichotomous variable to indicate (1) the presence of conflict with at least 25 battle-related deaths and (0) no presence of conflict, as well as an ordinal variable, indicating (0) no presence of conflict; (1) the presence of a conflict with 25-999 battle-related deaths; and (2) the presence of a conflict with at least 1,000 battle-related deaths (Gleditsch et al. 9). A more nuanced measure of conflict intensity is included through battle-related deaths per year. *Bdbest* is used, which is UCPD's best estimate for battle-related deaths in the conflict/dyad in the given year (Sundberg 3).

Conflict data is obtained from the Uppsala Conflict Data Program's 2012 version

of the Armed Conflict dataset, which provides data on all armed conflicts from 1960 to 2011. UCDP defines conflict as "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths" (Gleditsch et al. 1). This analysis is limited to internal and internationalized internal conflicts.[20]

The post-conflict period is measured, following Lai and Thyne, using a simple dichotomous variable to indicate (1) for any year following conflict, in relation to the most recent conflict, and (0) for any other year (281). A relaxed post-conflict measure is included by coding observations as (0) instead of (1) following ten years after the most recent conflict end-year. This is to test the hypothesis that survival and completion rates will decline in the immediate post-conflict period but will eventually recover. Because no time-frame is identified in the literature, ten years is selected to account for a slow but eventual recovery. A decay function is created for the post-conflict variable to identify the effect of war on the dependent variables over time following conflict termination. Starting with a simple decay of 1/time since the end of the civil war, this analysis follows Lai and Thyne's dynamic post-conflict measure, calculated as 1/(time since the end of the civil war to various powers) (283).[21]

Controlling for Other Effects on Educational Attainment and Completion

Several control variables which might impact the dependent variables are included in the analysis. These control variables include: GDP/capita, type of regime,

---

[20] Observations of internationalized internal conflicts were removed if the battle location(s) was/were not within the country. This meant excluding five "state-years" of conflict: 2008-2010 in Uganda and 2009 and 2010 in Rwanda.

[21] The authors modeled this variable using the first power to the tenth power and found, when using the third power, that the coefficient and level of statistical significance were no different than other models of this decline. This analysis takes the same approach, using the third power in the final analysis.

and the percentage of population that is rural. GDP/capita indicates a state's level of economic development and accounts for the possibility that developed states have more potential resources to allocate towards education. The type of regime, ranging from very autocratic to very democratic, might also impact education spending, as more democratic regimes may spend more on public goods to cater to their electorate (Lai and Thyne 282). Finally, countries with a higher percentage of rural population might exhibit lower levels of intake rates, as these populations have more limited access to schooling. A higher rural population might also signify that the state is more constrained in its ability to provide schools administrative and financial support. GDP/capita and percentage of population that is rural are drawn from the World Bank's Development Indicators; data for the polity variable are drawn from the Polity IV project ("World Development Indicators"; Marshal et al. 2010).

Table 1. Sample Data[22]

Variable	Description
Conflict – Yes/No	Categorical variable indicating presence of conflict: 0 = no presence of armed conflict; 1 = at least 25 battle-related deaths in a given state-year
Conflict intensity	Conflict intensity in a given year: 0 = no presence of armed conflict; 1 = between 25 and 999 battle-related deaths; 2 = at least 1,000 battle-related deaths in a given year

---

[22] Definitions for education indicators are taken from the UNESCO Institute for Statistics 2009 *Education Indicators: Technical Guidelines.* Definitions for GDP/capita and percentage of population that is rural are drawn from the World Bank's "World Development Indicators" online database; the definition for the polity variable is drawn from the Polity IV project Dataset Users' Manual.

Post-conflict measure	Categorical variable indicating year post-conflict: 0 = not post-conflict; 1 = any year post-conflict
Relaxed post-conflict measure	Categorical variable indicating year post-conflict: 0 = not post-conflict; 1 = any year within 10 years of conflict termination post-conflict
Battle-related deaths	Best estimate for battle-related deaths in the conflict/dyad in the given year.
Dynamic post-conflict measure	Modeled as 1/number of years since end of conflict; and 1/number of years since end of conflict to powers ranging from 1-10
GDP/capita in USD	Gross domestic product in constant USD from 2005 divided by mid-year population
Polity score	Measure of state's regime type; ranges from +10 to -10, with +10 being strongly democratic and -10 being strongly autocratic
% of population rural	Percentage of population living in rural areas as defined by national statistical offices
Survival rate to last grade of primary	Percentage of a cohort of pupils enrolled in first grade of primary school in a given school year who are expected to reach the final grade of primary school
Net intake rate to the first grade of primary	New entrants in the first grade of primary education who are of the official primary school entrance age, expressed as a percentage of the population of the same age
Graduation rate	Total number of graduates from the last grade of primary education, regardless of age, expressed as a percentage of the population at the theoretical graduation age for primary.
Gross intake rate to the last grade of primary	Total number of new entrants in the last grade of primary education, regardless of age, expressed as a percentage of the population at the theoretical entrance age to the last grade of primary; proxy measure of primary completion
Gender parity index	Ratio of female to male values of a given indicator

Table 2. Descriptive Statistics

Variable	M	SD	Min.	Max.
Conflict – Yes/No	.19	.39	0	1.00
Conflict intensity	.24	.53	0	2.00
Battle-related deaths	130.92	469.78	0	4891.00
Post-conflict measure	.52	.50	0	1.00
Relaxed post-conflict measure	.33	.47	0	1.00
Dynamic post-conflict measure	.06	.23	0	1.00
GDP/capita in USD	1552.13	2578.49	118.64	14901.35
Polity score	1.62	5.20	-9.00	10
% of population rural	62.72	16.56	14.16	92.17
Survival rate to last grade of primary	63.89	17.58	22.20	98.45
Net intake rate to the first grade of primary	45.51	19.37	6.50	92.25
Gender parity for net intake rate to the first grade of primary	.96	.11	.68	1.20
Graduation rate	51.68	23.96	14.02	133.15
Gross intake ratio to the last grade of primary	61.13	23.96	14.03	133.15

Table 3. Descriptive Statistics – Imputed Datasets

Variable	M	SD	Min.	Max.
Conflict – Yes/No	.19	.39	0	1.00
Conflict intensity	.24	.53	0	2.00
Battle-related deaths	130.92	469.78	0	4891.00
Post-conflict measure	.52	.50	0	1.00
Relaxed post-conflict measure	.33	.47	0	1.00
Dynamic post-conflict measure	.06	.23	0	1.00
GDP/capita in USD	1554.03	2577.26	118.64	14901.35
Polity score	1.69	5.16	-9.00	10.00
% of population rural	62.95	16.55	14.16	92.17
Survival rate to last grade of primary	64.13	17.42	22.2	98.45
Net intake rate to the first grade of primary	44.86	19.50	5.06	92.25
Gender parity for net intake rate to the first grade of primary	.95	.11	.68	1.2
Graduation rate	49.61	23.66	1.27	111.73
Gross intake rate to the last grade of primary	59.56	24.47	14.03	133.15

Results

Tables 4-9 display the results for the multiple regression tests for each of the five

education indicators—survival rates, net intake rates to the first grade of primary, gender

parity for net intake rates, graduation rates, and gross intake rates to the last grade of

primary. Model 1 displays results using the dichotomous conflict variable; model 2

displays results using the ordinal conflict variable; model 3 displays results using the

battle-related deaths variables; and models 4-6 display results using the dynamic post-

conflict variable.[23] This discussion focuses primarily on the imputed datasets, as more

information is available for these datasets and because the parameter estimates using the

imputed data are less likely to be biased than the parameter estimates from the analyses

using the listwise deletion approach.[24] Further, the results from the imputed data follow

the theoretical expectations more closely than the results from the original data.

Differences between the multiple imputation and listwise deletion results are also

discussed.

The first hypothesis that the presence and intensity of conflict will negatively

impact survival rates, net intake rates, and completion rates is overall supported. Across

all models, looking at the survival rate, the variables indicating presence of conflict,

intensity of conflict, and battle-related deaths are negative. However, these variables are

only significant in the models calculated using the dichotomous post-conflict variable. In

these models, one year of conflict is associated with a decrease in survival rates by

5.372% to 3.816%, with 1,000 battle-related deaths leading to a 3% decrease in survival

rates. If the mean number of students enrolled in primary school per country is

---

[23] Results using a relaxed post-conflict variables which codes observations as (0) instead of (1) following ten years after the most recent conflict end-year are reported in the appendix. Across most models, this relaxed post-conflict variable was significant, but the simple post-conflict variable provided a better model fit, as the inclusion of the relaxed variable alongside the conflict variables generally affected the significance of the conflict variables.
[24] Multiple imputation (MI) estimates with missing values imputed using the AMELIA program developed by Honaker et al. (2003) and King et al. (2001). Coefficients were obtained by taking the arithmetic mean; standard errors were obtained using a standard formula (Rubin 1987) that takes into account variance within each imputed dataset and across each imputed dataset.

approximately 4 million, these numbers are significant, with a 3.816% decrease leading to a loss of about 152,640 students (Lai and Thyne 285).

The hypothesis that net intake rates will decline during conflict is also generally supported, depending on the measurement of the post-conflict variables. Where the dichotomous post-conflict variable is included, one year of conflict is associated with a decrease in net intake rates by 4.446% to 3.57%. The battle-related deaths variable, however, is negative, but not significant for net intake rates.

The hypothesis that completion rates will decline during conflict is supported overall, with one year of conflict associated with a 14.265% to 9.254% decrease in graduation rates, where the simple dichotomous variable is used and a 6.784% - 4.941% decrease where the dynamic post-conflict variable is used. The battle-related deaths variable is not significant. In the analysis of gross intake rates to the last grade of primary, the conflict variable is significant across all models, with a 7.322% to 5.617% decrease associated with each conflict year where the dichotomous post-conflict variable is used and a 4.279% - 3.622% decrease where the dynamic post-conflict variable is used (although the dynamic post-conflict variable itself is not significant). The battle-related deaths variable is significant as well, with 1,000 battle related deaths associated with a 3% decrease in gross intake rates to the last grade of primary.

The hypothesis that net intake rates will improve in the immediate post-conflict period but that survival rates and completion rates will decline is not met. Although survival rates and completion rates appear to decline, net intake rates do not appear to improve. Rather, net intake rates appear to continue to decline in the post-conflict period, with one post-conflict year associated with a 3.968% to a 2.57% decrease. The dynamic

post-conflict variable, however, is not significant. This might indicate that this effect does not play out over time, and the post-conflict effect that is visible is an aggregated effect. Likewise, survival rates, graduation rates, and gross intake rates to the last grade of primary appear to decline when the post-conflict effect is measured using the dichotomous or relaxed dichotomous variable. Across these variables, the dynamic post-conflict variable is again not significant except in the case of two of the models for graduation rates, with $p < 0.10$.

The hypothesis that gender parity for intake rates will decline in the post-conflict period is generally supported. Where the post-conflict indicator is measured using the dynamic post-conflict variable as well as the relaxed iteration of the post-conflict variable, the measure is significant, possibly indicating the presence of an effect that dissipates over time. In the first year, the effect is a .042 - .037 reduction, while in the second year, the effect is only a .00525 - .004625 reduction (.042 -.037* .125). Here it should be noted that gender parity is measured as the ratio of girls to boys for a given indicator; a gender parity index between 0 and 1 indicates a disparity in favor of males while a gender parity index of above 1 indicates a disparity in favor of females. Therefore, a .037 reduction could indicate a significant shift towards a disparity favoring males. Interestingly, 1,000 battle-related deaths is associated with a .02 increase in the gender parity index for net intake rates. This might indicate a high rate of male recruitment into armed forces, while the post-conflict effect indicates a decline in the return of girls to school, possibly due to gender-based violence that occurred during the conflict period.

49

It is important to point out differences between the imputed and listwise deletion datasets. Differences in coefficient values and p-values are most pronounced when looking at survival rates and graduation rates. The graduation rates variable only exhibits 65 out 597 observations; thus it is expected that these results differ, as the multiple imputation estimates fill in a substantive amount of missing data, and estimates are more likely to be inconsistent. Further, the level of missingness for graduation rates is significantly higher for conflict-affected country-years, as only .14 (or 16) observations are available, while .23 of the observations for non-conflict-affected country-years are present. The level of overall missingness is not as high for the other variables, but it is still significant; over half of all observations are missing across all variables except for gross intake rates to the last grade of primary. However, unless the data are missing completely at random, which is highly unlikely, the listwise deletion estimates will almost certainly be biased, and the multiple imputation estimates will provide more accurate parameter estimates. Still, it is important to recognize the inconsistency introduced into the multiple imputation estimates through the high level of missingness across most of the variables.

In the listwise deletion models, survival rate does not appear to be affected by any of the conflict or post-conflict variables. Likewise, for net intake rates, none of the conflict or post-conflict variables is significant, although coefficients are negative across all models and coefficient values are similar. Turning to gender parity for net intake rates, specifically the post-conflict effect, the relaxed post-conflict variable is again significant and negative, as it is in the multiple imputation models, with one post-conflict

50

year associated with a .012 to a .010 decrease in the gender parity ratio. The dynamic post-conflict variable is negative but not significant.

Considering indicators of completion, gross intake to the last grade of primary displays results that are most similar to the results using the multiple imputation estimates, which is expected given that fever observations are missing for this variable. The conflict variable is significant and negative in the first model, with one conflict year associated with a 2.494% to 2.262% decrease in gross intake rates. However, it is not significant across the other models, although the coefficient remains negative. The dichotomous post-conflict variable is negative and significant across almost all of the models, with a 2.652% - 1.666% decrease associated with one post-conflict year. Across all models, coefficients are higher for the imputed datasets, with one year of conflict associated with a 7.322% decrease in gross intake rates to the last grade of primary for the imputed dataset and only a 2.494% decrease for the listwise deletion dataset. Results are less similar for graduation rates, with coefficient directions generally the same but differing levels of significance.

The results for the control variables vary across the models. GDP/capita is positive across all models, as is expected, but significant only for survival rates, gross intake rates, and several models in the case of graduation rates. The polity variable is positive and significant across all models, indicating that more democratic regimes are likely to exhibit higher education indicators, while the percentage of population rural is significant and associated with a decrease in education indicators across almost all of the models. For the listwise deletion datasets, the results are more anomalous. GDP/capita remains positive across all models, while percentage of population rural remains

negative, but these variables are significant in fewer cases. However, the polity variable is not significant across any of the models.

Looking at model statistics, for the multiple imputation datasets, r^2 is generally high, above .5 for most models. However, this should be interpreted with some caution, given the inclusion of a lagged dependent variable, which is highly significant across all models. The r^2 value is higher for the listwise deletion datasets, possibly due to the low sample size and less randomness across the dependent variable and greater weight of the lagged dependent variable in the model.

Discussion

Overall, it appears that the conflict and post-conflict periods are associated with a significant decline in education indicators of attainment and completion. This supports Gates et al.'s finding that "a war with 10,000 battle deaths is associated with a relative decrease in attainment of about points" as well as the UIS study's finding that "cohorts that were of school-going age during a time of conflict have lower educational attainment that persists over time" (Gates et al. 33; UIS 6) However, the negative effect of conflict on education does not appear to hold when considering conflict magnitude. Further research might consider measures of civilian casualties instead of battle-related deaths to analyze the possible effect of conflict intensity.

Looking at the post-conflict period, the effect on gender parity for net intake rates appears to dissipate over time. However, in the case of survival rates, net intake rates, and gross intake rates to the last grade of primary, the post-conflict effect appears to be aggregated, unrelated to time. This might indicate that the effect lasts long after conflict termination, although this cannot be determined from the current analysis.

52

Overall, these results point to a continued need to consider measures of attainment and completion and to support the collection of indicators which more closely measure quality. These findings contradict Mack et al.'s claim that "war is not development in reverse" (HSRG 2012). Mack et al. offer several explanations for this assertion: that wars are less destructive now than they used to be; that conflict may not be sufficient to slow pre-war rates; and that the negative impact may be offset by other factors. The explanation that the negative impacts of conflict may "be too short-lived to be easily detected" is especially questionable, as all of the education indicators in this study appear to be negatively affected in the post-conflict period (HSRG 104). However, because this study analyzes levels of education indicators rather than rates of change, it is difficult to ascertain whether these effects are due to factors already present during peacetime. The inclusion of control variables moves in the direction of understanding how factors such as state resources and regime type impact education, but further studies should continue to measure pre-, during, and post-war education indicators to understand the performance of these variables over time.

Table 4. Results – Coefficients and Standard Error Values, Model 1*

	Survival rate	Survival rate (MI)	Net intake rate	Net intake rate (MI)	NIR gender parity	NIR gender parity (MI)	Graduation rate	Graduation rate (MI)	Gross intake rate	Gross intake rate (MI)
Conflict yes/no	.262 (2.518)	-5.372*** (1.953)	-1.780 (2.300)	-4.446* (2.331)	-.011 (.010)	-.011 (.012)	-2.151 (3.811)	-14.265*** (3.263)	-2.494* (1.351)	-7.322*** (1.776)
Post-conflict yes/no	-.339 (2.044)	-5.587*** (1.345)	-1.637 (1.839)	-3.962** (1.565)	-.010 (.007)	-.010 (.016)	-1.864 (2.621)	-10.102*** (2.674)	-2.652** (1.109)	-4.34*** (1.352)
Lag (y at n-1)	.761*** (.051)	.550*** (.043)	.850*** (.038)	.642*** (.035)	.908*** (.027)	.723*** (.038)	.964*** (.047)	.584*** (.038)	.861*** (.024)	.650*** (.030)
GDP/capita in USD 2005	.0006 (.0005)	.001* (.0003)	.0003 (.0005)	.00004 (.0003)	.000001 (.000002)	.000001 (.000001)	.0008 (.0007)	-.00003 (.0003)	.001*** (.0003)	.0009*** (.0003)
Polity score	-.058 .144	.300*** (.115)	.210 (.148)	.216* (.132)	.0002 (.001)	.001 (.001)	-.050 (.188)	.502*** (.134)	-.067 (.073)	.409*** (.115)
% of pop. rural	-.123* (.069)	-.143*** (.035)	.003 (.055)	.057 .052	-.00002 (.0002)	-.00003 (.0002)	-.095 (.065)	-.153*** (.052)	-.101*** (.033)	-.157*** (.040)
Constant	23.537*** (7.053)	40.493*** (4.291)	6.181 (4.856)	14.977*** (3.931)	.093*** (.033)	.270*** (.039)	7.860 (5.598)	37.525*** (5.393)	14.821*** (3.696)	32.475*** (4.059)
	N = 185 R^2 = .6967 adj R^2 = .6865 F-statistic = 68.15	N = 597 R^2 = .53298 adj R^2 = .52822 F-statistic = 112.772	N = 167 R^2 = .8154 adj R^2 = .8085 F-statistic = 117.80	N = 597 R^2 = .487 adj R^2 = .48176 F-statistic = 93.708	N = 168 R^2 = .8998 adj R^2 = .8961 F-statistic = 241.04	N = 597 R^2 = .556 adj R^2 = .552 F-statistic = 124.72	N = 65 R^2 = .9456 adj R^2 = .9400 F-statistic = 168.00	N = 597 R^2 = .65044 adj R^2 = .6469 F-statistic = 184.426	N = 301 R^2 = .9277 adj R^2 = .9263 F-statistic = 629.16	N = 597 R^2 = .7216 adj R^2 = .72436 F-statistic = 262.702

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5. Results – Coefficients and Standard Error Values, Model 2*

	Survival rate	Survival rate (MI)	Net intake rate	Net intake rate (MI)	NIR gender parity	NIR gender parity (MI)	Graduation rate	Graduation rate (MI)	Gross intake rate	Gross intake rate (MI)
Conflict intensity	.504 (2.139)	-3.816** (1.497)	-1.632 (2.037)	-3.569** (1.745)	-.005 (.008)	.007 (.010)	-3.331 (3.138)	-9.254*** (2.581)	-1.427 (1.001)	-5.617*** (1.289)
Post-conflict yes/no	-.190 (1.976)	-5.371*** (1.292)	-1.361 (1.790)	-3.968** (1.574)	-.007 (.007)	-.001 (.008)	-2.691 (2.577)	-8.686*** (2.598)	-2.191** (1.046)	-4.227*** (1.295)
Lag (y at n-1)	.763*** (.051)	.552*** (.043)	.852*** (.0378)	.643*** (.035)	.912*** (.027)	.732*** (.036)	.955*** (.045)	.608*** (.038)	.868*** (.024)	.657*** (.030)
GDP/capita in USD 2005	.0006 (.00053)	.001** (.0003)	.0003 (.0005)	.0001 (.0003)	.000001 (.000001)	.000002 (.000001)	.001 (.001)	.00007 (.0003)	.001*** (.0003)	.001*** (.0003)
Polity score	-.056 (.144)	.292** (.118)	.210 (.149)	.201 (.132)	.0002 (.001)	.001* (.001)	-.082 (.190)	.474*** (.140)	-.069 (.073)	.383*** (.115)
% of pop. rural	-.124* (.069)	-.144*** (.036)	.001 (.055)	.056 (.051)	-.00003 (.0002)	-.0001 (.0002)	-.084 (.065)	-.154*** (.051)	-.097*** (.033)	-.157*** (.040)
Constant	23.330*** (6.97)	40.166*** (4.322)	5.882 (4.816)	15.022*** (3.830)	.088*** (.032)	.253*** (.037)	8.441 (5.450)	34.980*** (5.422)	13.706*** (3.587)	31.838*** (4.034)
	N = 185 R^2 = .6968 adj R^2 = .6866 F-statistic = 68.17	N = 597 R^2 = .53298 adj R^2 = .52822 F-statistic = 112.772	N = 167 R^2 = .8151 adj R^2 = .8082 F-statistic = 117.55	N = 597 R^2 = .48802 adj R^2 = .4828 F-statistic = 94.152	N = 168 R^2 = .8992 adj R^2 = .8954 F-statistic = 239.34	N = 597 R^2 = .5729 adj R^2 = .56852 F-statistic = 132.616	N = 65 R^2 = .9463 adj R^2 = .9408 F-statistic = 170.46	N = 597 R^2 = .6462 adj R^2 = .64262 F-statistic = 181.036	N = 300 R^2 = .9274 adj R^2 = .9259 F-statistic = 626.03	N = 597 R^2 = .72832 adj R^2 = .7255 F-statistic = 294.246

55

$*\ p < 0.10,\ **\ p < 0.05,\ ***\ p < 0.01$

Table 6. Results – Coefficients and Standard Error Values, Model 3*

	Survival rate	Survival rate (MI)	Net intake rate	Net intake rate (MI)	NIR gender parity	NIR gender parity (MI)	Graduation rate	Graduation rate (MI)	Gross intake rate	Gross intake rate (MI)
Battle-related deaths	-.0003 (.003)	-.003* (.002)	-.0005 (.003)	-.002 (.002)	-.00001 (.00001)	.00002** (.00001)	.007 (.007)	-.004 (.003)	-.0002 (.001)	-.003** (.001)
Post-conflict yes/no	-.520 (1.629)	-4.077*** (1.323)	-.843 (1.530)	-2.570* (1.384)	-.006 (.006)	-.005 (.007)	-.070 (2.081)	-4.227* (2.194)	-1.276 (.862)	-1.882* (1.143)
Lag (y at n-1)	.758*** (.049)	.560*** (.043)	.855*** (.038)	.658*** (.034)	.915*** (.026)	.723*** (.035)	.988*** (.041)	.661*** (.038)	.881*** (.022)	.680*** (.030)
GDP/capita in USD 2005	.0005 (.0005)	.001*** (.0002)	.0004 (.0005)	.0002 (.0003)	.000001 (.000002)	.000002 (.000001)	.001 (.001)	.0004 (.0003)	.001*** (.0002)	.001*** (.0003)
Polity score	-.060 (.144)	.315*** (.117)	.218 (.149)	.238* (.129)	.0002 (.0006)	.002** (.001)	-.022 (.186)	.547*** (.146)	-.059 (.074)	.427*** (.111)
% of pop. rural	-.121* (.070)	-.142*** (.036)	-.004 (.055)	.051 (.050)	-.00004 (.0002)	-.0001 (.0002)	-.123*** (.065)	-.147*** (.050)	-.090*** (.032)	-.152*** (.040)
Constant	23.775*** (6.755)	38.262*** (4.125)	5.531 (4.785)	12.980*** (3.954)	.084*** (.032)	.260*** (.034)	6.639 (5.246)	27.293*** (5.091)	11.574*** (3.296)	27.686*** (3.853)
	N = 185 R² = .6967 adj R² = .6865 F-statistic = 68.15	N = 597 R² = .53042 adj R² = .52566 F-statistic = 111.736	N = 167 R² = .8147 adj R² = .8078 F-statistic = 117.28	N = 597 R² = .4827 adj R² = .47926 F-statistic = 92.87	N = 168 R² = .8993 adj R² = .8955 F-statistic = 239.60	N = 597 R² = .57928 adj R² = .57502 F-statistic = 136.074	N = 65 R² = .9462 adj R² = .9406 F-statistic = 169.98	N = 597 R² = .62838 adj R² = .6246 F-statistic = 167.43	N = 301 R² = .9269 adj R² = .9254 F-statistic = 621.43	N = 597 R² = .4827 adj R² = .47926 F-statistic = 92.87

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7. Results – Coefficients and Standard Error Values, Model 4*

	Survival rate	Survival rate (MI)	Net intake rate	Net intake rate (MI)	NIR gender parity	NIR gender parity (MI)	Graduation rate	Graduation rate (MI)	Gross intake rate	Gross intake rate (MI)
Conflict yes/no	.577 (1.922)	-1.124 (1.591)	-.878 (.054)	-1.549 (1.941)	-.005 (.008)	.-.003 (.009)	-.499 (2.814)	-6.784*** (2.526)	-.321 (.999)	-4.279*** (1.542)
Post-conflict dynamic	.981 (3.771)	-1.129 (4.282)	-3.960 (3.107)	-1.090 (3.495)	-.014 (.013)	-.042*** (.015)	-4.931 (6.528)	-7.613* (4.58)	-.558 (1.534)	-3.362 (2.442)
Lag (y at n-1)	.763*** (.049)	.573*** (.043)	.863*** (.035)	.665*** (.033)	.920*** (.026)	.728*** (.037)	.968 (.045)	.643*** (.036)	.886*** (.022)	-.670*** (.030)
GDP/capita in USD 2005	.0006 (.0005)	.001*** (.0003)	.0004 (.0005)	.0003 (.0003)	.000001 (.000002)	.000002 (.000001)	.001 (.001)	.0006** (.00027)	.001*** (.0002)	.001*** (.0002)
Polity score	-.057 (.144)	.359*** (.110)	.193 (.148)	.253* (.130)	.0002 (.001)	.001 (.001)	.017 (.181)	.534*** (.139)	-.061 (.074)	.434*** (.113)
% of pop. rural	-.123* (.069)	-.113*** (.036)	.003 (.055)	.071 (.051)	-.00002 (.0002)	.00005 (.0002)	-.108* (.065)	-.097* (.050)	-.073** (.031)	-.130** (.039)
Constant	23.065*** (6.296)	32.757*** (3.881)	4.626 (4.388)	9.989*** (3.46)	.075** (.030)	.253246*** (.034)	6.822 (5.088)	23.876*** (4.005)	9.427*** (2.936)	26.403*** (3.550)
	N = 185 R^2 = .6968 adj R^2 = .6866 F-statistic = 68.17	N = 597 R^2 = .5193 adj R^2 = .51442 F-statistic = 106.73	N = 167 R^2 = .8164 adj R^2 = .8095 F-statistic = 118.55	N = 597 R^2 = .48194 adj R^2 = .47688 F-statistic = 91.854	N = 168 R^2 = .8994 adj R^2 = .8957 F-statistic = 239.33	N = 597 R^2 = .5779 adj R^2 = .5736 F-statistic = 135.374	N = 65 R^2 = .9457 adj R^2 = .9400 F-statistic = 168.20	N = 597 R^2 = .63278 adj R^2 = .62906 F-statistic = 170.59	N = 301 R^2 = .9264 adj R^2 = .9249 F-statistic = 616.52	N = 597 R^2 = .72296 adj R^2 = .72016 F-statistic = 257.204

57

$* p < 0.10, ** p < 0.05, *** p < 0.01$

58

Table 8. Results – Coefficients and Standard Error Values, Model 5*

	Survival rate	Survival rate (MI)	Net intake rate	Net intake rate (MI)	NIR gender parity	NIR gender parity (MI)	Graduation rate	Graduation rate (MI)	Gross intake rate	Gross intake rate (MI)
Conflict intensity	.675 (1.688)	-1.053 (1.294)	-.576 (1.681)	-1.549 (1.515)	-.001 (.007)	.008 (.007)	-1.273 (2.350)	-4.941** (1.986)	-.126 (.785)	-3.622*** (1.165)
Post-conflict dynamic	1.028 (3.774)	-1.165 (4.258)	-3.901 (3.109)	1.213 (3.575)	-.013 (.013)	-.039** (.015)	-5.085 (6.506)	-7.456* (4.55)	-.515 (1.533)	-3.448 (2.436)
Lag (y at n-1)	.765*** (.049)	.574*** (.042)	.863*** (.035)	.665*** (.033)	.920*** (.026)	.731*** (.035)	.963*** (.044)	.650*** (.036)	.887*** (.022)	.673*** (.030)
GDP/capita in USD 2005	.0006 (.0005)	.001*** (.0003)	.0004 (.0005)	.0003 (.0003)	.000002 (.000002)	.000002 (.000001)	.001 (.001)	.0006** (.00027)	.001*** (.0002)	.001*** (.0002)
Polity score	-.056 (.133)	.353*** (.112)	.194 (.149)	.240* (.131)	.0002 (.0006)	.001* (.007)	.019 (.179)	.514*** (.143)	-.061 (.074)	.412*** (.115)
% of pop. rural	-.126* (.069)	-.113*** (.034)	.001 (.055)	.073 (.051)	-.00004 (.0002)	-.00001 (.0002)	-.101 (.065)	-.100** (.049)	-.074** .031	-.129*** (.039)
Constant	23.116*** (6.297)	32.803*** (3.883)	4.652 (4.403)	10.027*** (3.423)	.075** (.030)	.251*** (.033)	6.810 (5.068)	23.653*** (3.963)	9.366** (2.931)	26.256*** (3.566)
	N = 185 R^2 = .6969 adj R^2 = .6867 F-statistic = 68.21	N = 597 R^2 = .51952 adj R^2 = .51466 F-statistic = 106.826	N = 167 R^2 = .8162 adj R^2 = .8093 F-statistic = 118.45	N = 597 R^2 = .48264 adj R^2 = .47738 F-statistic = 92.13	N = 168 R^2 = .8992 adj R^2 = .8955 F-statistic = 239.39	N = 597 R^2 = .57898 adj R^2 = .57468 F-statistic = 136.012	N = 65 R^2 = .9459 adj R^2 = .9403 F-statistic = 169.00	N = 597 R^2 = .63242 adj R^2 = .62868 F-statistic = 170.344	N = 301 R^2 = .9264 adj R^2 = .9249 F-statistic = 616.35	N = 597 R^2 = .7286 adj R^2 = .72584 F-statistic = 264.888

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 9. Results – Coefficients and Standard Error Values, Model 6*

	Survival rate	Survival rate (MI)	Net intake rate	Net intake rate (MI)	NIR gender parity	NIR gender parity (MI)	Graduation rate	Graduation rate (MI)	Gross intake rate	Gross intake rate (MI)
Battle-related deaths	.0001 (.003)	-.002 (.002)	-.0003 (.003)	-.001 (.002)	-.000007 (.00001)	.00002** (.000008)	.007 (.007)	-.003 (.002)	.0005 (.001)	-.003** (.001)
Post-conflict dynamic	.894 (3.775)	-1.186 (4.410)	-3.778 (3.090)	-.927 (3.55)	-.013 (.013)	-.037** (.015)	-4.404 (6.459)	-6.160 (4.598)	-.405 (1.521)	-2.74 (2.425)
Lag (y at n-1)	.761*** (.049)	.573*** (.043)	.863*** (.035)	.669*** (.033)	.921*** (.026)	.721*** (.035)	.982*** (.042)	.670*** (.037)	.888*** (.022)	.684*** (.030)
GDP/capita in USD 2005	.0006 (.0005)	.001*** (.0003)	.0004 (.0005)	.0003 (.0003)	.000002 (.000002)	.000002 (.000001)	.001 (.001)	.0006** (.0003)	.001*** (.0002)	.001*** (.0002)
Polity score	-.060 (.144)	.341*** (.114)	.199 (.150)	.249* (.129)	.0002 (.0006)	.002** (.007)	.0004 (.178)	.545** (.148)	-.056 (.074)	.428*** (.110)
% of pop. rural	-.119* (.069)	-.113*** (.037)	-.002 (.054)	.067 (.048)	-.00003 (.0002)	-.00003 (.0002)	-.128 (.065)	-.115** (.047)	-.076** (.031)	-.137*** (.039)
Constant	23.068*** (6.310)	32.819*** (3.871)	4.790 (4.407)	9.982*** (3.413)	.074** (.030)	.260*** (.033)	7.237 5.053	22.582*** (4.061)	9.301*** (2.916)	25.553*** (3.574)
	N = 185 R^2 = .6966 adj R^2 = .6864 F-statistic = 68.12	N = 597 R^2 = .52108 adj R^2 = .51622 F-statistic = 107.546	N = 167 R^2 = .8161 adj R^2 = .8092 F-statistic = 118.35	N = 597 R^2 = .48216 adj R^2 = .47688 F-statistic = 91.958	N = 168 R^2 = .8994 adj R^2 = .8956 F-statistic = 239.83	N = 597 R^2 = .58514 adj R^2 = .5809 F-statistic = 139.45	N = 65 R^2 = .9466 adj R^2 = .9411 F-statistic = 171.42	N = 597 R^2 = .62582 adj R^2 = .62202 F-statistic = 165.706	N = 300 R^2 = .9264 adj R^2 = .9249 F-statistic = 616.64	N = 597 R^2 = .7215 adj R^2 = .71864 F-statistic = 230.23

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

59

CHAPTER FOUR. LEARNING AS PROTECTIVE AND ENDANGERING:

A CASE STUDY OF PRIMARY SCHOOLING IN NORTHERN UGANDA

Standard regressions, while useful in demonstrating patterns, are limited in their

ability to demonstrate causality. The finding that conflict negatively affects children's

access to schooling and primary school progression and completion is important, but

alone, it does not say anything about how these effects play out and how they might be

ameliorated. The case study approach helps to shed light on these patterns by exploring

the causal pathways linking the education and conflict variables.

Through a case study of Gulu District in Northern Uganda, this chapter examines

the local-level mechanisms through which conflict affects children's schooling and how

local actors—specifically students and teachers—play a critical role in ensuring that

schools protect children during conflict through strategies which support the learning that

takes place in schools. This study explores how the culture of primary schools in

Northern Uganda, shaped largely by students and teachers, both reflected the norms of a

society at war and provided a normalizing environment for children.

The most distinctive characteristic of the Lord's Resistance Army's (LRA)

twenty-year insurgency and arguably the most impactful to primary schooling was its

high-profile strategies of violence and terror against civilians. During the war, Gulu and

Kitgum Districts experienced the majority of LRA violence (COWI 68). Although the

LRA carried out several attacks within Gulu municipality, it did not manage to take the

town from government control, and most of its attacks were concentrated in the villages

surrounding the town (Branch 4). From 1994 on, civilians in the villages surrounding

Gulu municipality were displaced into "protected villages," or internally displaced

persons (IDP) camps, by the government (IDMC 6). Generally, attacks were worse in the

village; the security situation in town was described by interviewees as "not all that very

bad," "a little peaceful," and "fairer" (Interview with the author, 16 April 2013, Gulu,

Uganda; Interview with the author, 1 May 2013, Kampala, Uganda; Interview with the

author, 20 April 2013, Gulu, Uganda). This distinction came out clearly in student

interviews, where all students from the village described experiences of rebel attacks on

schools or in the surrounding area, while three of eight students from town schools

described experiences of rebel attacks.

Discussions of challenges to primary schooling with students and teachers

centered primarily on instances of violent attacks on schools and a constant fear of

attacks. One student, following a detailed account of an LRA attack on the primary

school she attended in Gulu municipality, explained how violence affected her learning:

> Because … as young as you are, you cannot see death and still have that ability
> … to study. So it was a challenge, that I faced in my life during that
> particular moment … you cannot study in the school whereby each and every day
> that you step in the school the rebels are attacking our school (Interview with
> the author, 27 April 2013, Gulu, Uganda).

Teachers commented similarly on how insecurity affected their ability to teach and the

challenges they faced in supporting students' learning:

> These children do not only [not] … want to learn but they don't have the ability.
> Even they are not in their right mind. So it's hard for you to force someone to
> learn. You have to give the person the opportunity to learn (Interview with the
> author, 10 April 2013, Gulu, Uganda).

In addition to threats of commuting to and attending school, LRA attacks constrained the ability of government officials to monitor schools. Teachers described additional absences of support in terms of meager salaries, limited teaching resources, and a lack of school infrastructure and teachers' housing. One support that did increase during the war was teacher training and workshops from NGOs, with support from the district education office, on topics relevant to teaching during wartime, such as handling large numbers of children in the classroom and identifying students who had been formally abducted or who were orphans. Where new infrastructures were built, this was often done by NGOs with help from students' parents.

Yet, overall, wide-scale displacement and rampant insecurity led to overcrowding in primary schools and a culture of "automatic promotion." Camp life, described by one interviewee, clearly affected schooling as early marriages and pregnancies became common: "The society developed a kind of pattern of life … you find that the number of reporting of cases [of sexual assault] becomes also few. So the rate of dropout among the girls was high" (Interview with the author, 17 April 2013, Gulu, Uganda). One teacher summarized the situation in schools by distinguishing between the presence of learning versus quality: "The school itself was there but learning was not very effective. …. 'Cause there was a lot of fear. There was gunshot at any moment" (Interview with the author, 17 April, 2013, Gulu, Uganda).

However, despite these challenges, all but two of the students interviewed described wanting to attend school, because of a need to be educated, to have knowledge, "be someone," "be … someone important in the future," improve on the lifestyle of the family, "achieve my goal," and "help other people who have not studied" (Interviews

with the author, 21 April 2013, Gulu, Uganda; Interview with the author, 15 April 2013, Gulu, Uganda; Interviews with the author, 18 April 2013, Gulu Uganda). One parent interviewed described a song that she used to sing her children every day to encourage them to attend school: "Children, you have to love studying because studying is good/teachers come from school/school is good/doctors come from school/school is good" (Interview with author, 10 April 10 2013, Gulu, Uganda). This culture of prioritizing learning led to high intake rates throughout the conflict; however, low quality and a policy of "automatic promotion" created a situation in which drop-outs and high absenteeism were inevitable.

Overall, primary schooling during the war faced severe challenges, characterized by poor quality of learning, physical endangerment through exposure to rebel attacks, and the indirect reflection of violence in schools through corporal punishment, the presence of soldiers, and sexual assault and harassment of students. At the same time, students emphasized the importance of their in-school relationships with friends and teachers as they advised each other on personal and academic challenges, such as losing a parent, lacking money to pay for school fees, or struggling with a particular school subject. Students also emphasized the critical role their teachers played in mentoring them and advising them on how to stay safe. One student explained: "Those teachers, they were not helping us academically only. But to some extent, when we are … having some difficulties in any situation" (Interview with the author, 18 April 2013, Gulu, Uganda). Schooling thus represented a contradictory space of both endangerment and protection.

Brief History of War-Affected Northern Uganda

The LRA insurgency grew out of a series of political insurgencies as a result of the Museveni-led 1986 government's grab for power and latent fear among the northern, Acholi population. The 1980s political landscape in Uganda was characterized by deep divisions along ethno-regional lines; a legacy of political violence; and a weak, exclusionary state (Hovil and Lomo 7-12; Allen 9-11; Dolan 68-71; Doom and Vlassenroot 7-10; van Acker 336-340). Post-independence, narrow political interests and fear guided regimes. The Obote I, Idi Amin, Obote II, Okello, and Museveni regimes established a norm of using violent means to access and retain power (Doom and Vlassenroot 7). By the time Museveni seized power in 1986, he had inherited a country in social disorder (van Acker 335). Although espousing ideals of national unity, the government continued to engage in the exclusionary practices of its predecessors (van Acker 341).

Acholi fear of not only political exclusion but also an impending massacre materialized through a series of anti-NRA (National Resistance Army, led by Museveni) movements. These included the Ugandan People's Democratic party (UPDA), the Holy Spirit Movement (HSM), and the Lord's Resistance Army (LRA) (Doom and Vlassenroot 15-22). The LRA is the most well-known of these because of its high-profile tactics beginning primarily in 1992. From 1992 on, the LRA engaged in indiscriminate violence against civilians, intending to exact revenge on those who had supposedly fought alongside the government's defense units (Hovil and Lomo 16). At that point, the LRA's goals had shifted to focus on a control of the population, rather than a control of territory.

Arguably, the LRA's strategy of terror against the population—including mutilations, rape of women, abductions of children, and controlling, violent initiations of abductees—poses the hugest problem to reconstruction. Children were forced to kill their family members and each other; this discouraged them from defecting since it isolated them from their families and communities as murderers (Dolan 120-122). The LRA's tactic of indiscriminate violence reflected its inability to police its own members due to its very limited civilian support and lack of incentives for participation. Arguably, the LRA also engaged in indiscriminate violence against civilians starting in the early 1990s because its goals shifted to focus on control of the population rather than control of territory.

LRA violence tapped into a system of "highly recognizable 'signs'" (Doom and Vlassenroot 27). Mutilating a person's lips or ears was intended to terrify him from communicating with the government. Cutting off a person's legs sent a similar signal that riding a bicycle, a common form of transportation, should not be used to collude with government officials. Rape of women both communicated the LRA's power and disrupted family social order (Doom and Vlassenroot 27). During field work in Northern Uganda from 1998-2000, Christopher Dolan met no one who had not either experienced or witnessed such an act (99), implying deep, widespread, and indiscriminate social terror.

These tactics reflected not only the LRA's interest in punishing defectors, but also a broader strategy to control the Acholi population through turning them against the government. A Gulu NGO worker articulated this logic: "The rebels attack civilians because they want publicity, and when they strike civilian targets, it will show that the

Figure 1. Ugandan Districts Affected by the Lord's Resistance Army
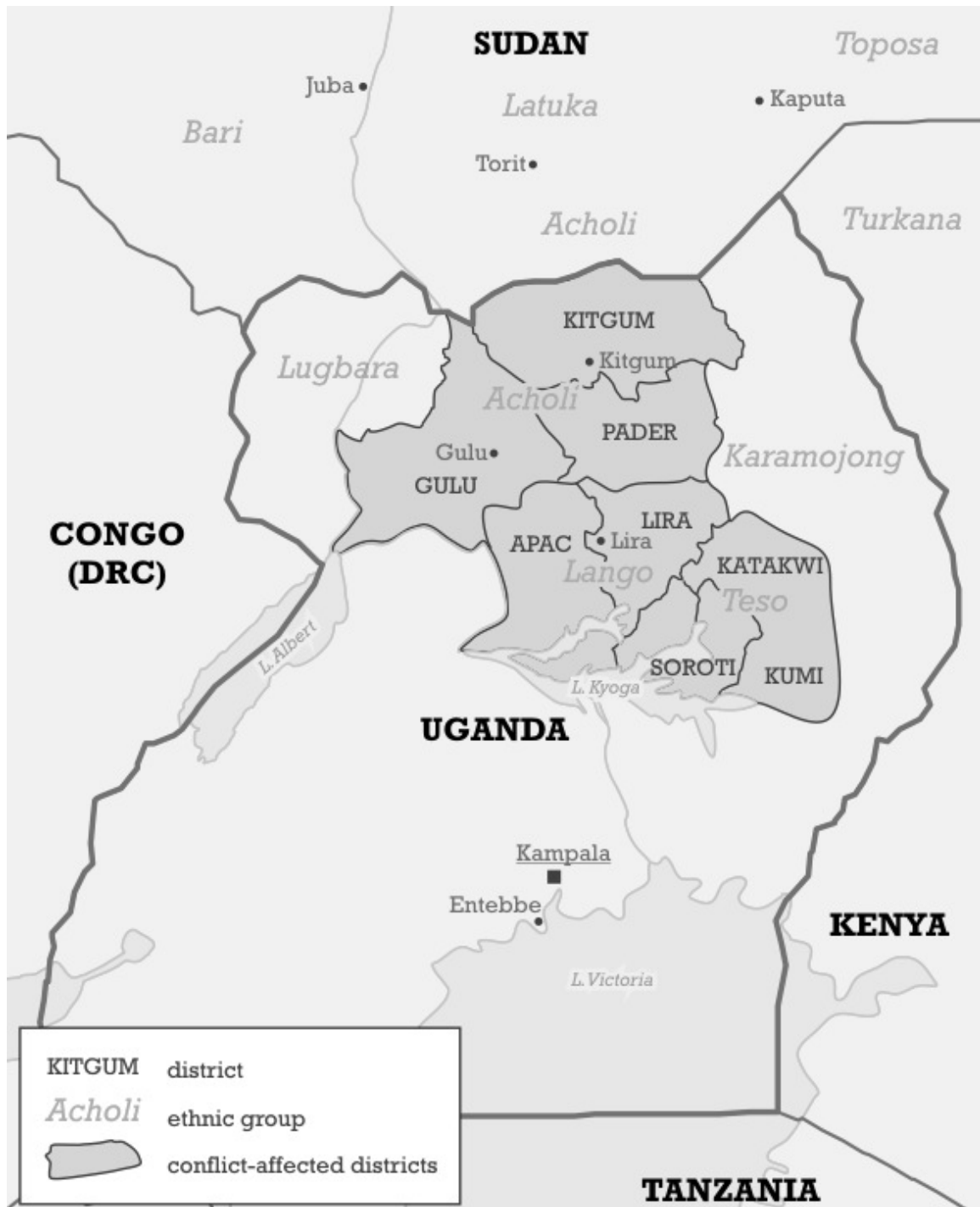
rebels are active. It will be turned around that the government is not protecting people"

(qtd. in Hovil and Lomo 22). Achieving this goal was less than successful for the LRA;

although civilians were caught between supporting the government and supporting the

LRA, this strategy did not sway them towards LRA support. However, it did often imply

a deep deficit of protection for civilians. Because people were displaced into IDP camps,

insecurity was greater, as "ordinary people were sandwiched between two fighters." An

interviewee for this project described how the NRA often accused Ugandans of being

rebel collaborators, while the LRA accused people of collaborating with government

forces: "as the war continued, both sides were killing people."

The LRA's strategy of terror was reflected within its organization as well.

Beginning around 1994, the LRA relied largely on abducting children to fill out its

membership (Doom and Vlassenroot 25). A student interviewed for this project clearly

articulated the logic behind this strategy:

> …it makes people to be in fear, that made most of the … young people not to
> continue with studies because at that time, [the rebels] were truly aware that the
> only way that they could, add their soldiers, is by what? By abducting these
> young kids, and they could only find those kids … by going to schools. (Interview
> with the author, 18 April 2013, Gulu, Uganda).

Further complicating social reconstruction has been the wide scale displacement

of the population during the insurgency. From 1994 to 2005, approximately 1.8 million

people were moved into "protected villages" or IDP camps by the Ugandan government

(IDMC 6). According to the UNHCR, in 2005, these approximately 1.8 million IDPs

were living in 251 camps across 11 districts of northern Uganda ("UNHCR closes

chapter on Uganda's internally displaced people"). The camps did not prevent

abductions, however; over 40,000 children became "night commuters," as they fled

nightly to urban centers, which were considered safer, to avoid LRA abduction (Veale

and Stavrou 21).

Displacement in the villages was accompanied by urban displacement. By 1996,

around 30,000 people had been displaced into Gulu town, constraining access to housing

and employment. By mid-1997, however, most food aid was being channeled towards

IDP camps in the villages, causing an exodus out of the town center; still tens of

thousands of people remained in Gulu town (Branch 4). Displaced individuals from

Kitgum and Pader districts also moved to Gulu for its relative security, with the UPDF

army based there, and economic opportunity, largely supported by the humanitarian

industry, as most aid organizations were headquartered in Gulu town (Branch 5-6).

Differences between Gulu town and the villages surrounding Gulu relate

primarily to the town's security relative to villages and higher level of aid delivery to the

displaced camps in the villages. Although the LRA carried out several attacks on the

town center, the rebels did not take the town from UPDF control, while, in the villages,

people living in the IDP camps were largely unprotected, targeted by both the LRA and

UPDF soldiers. Reflecting the heightened vulnerability and insecurity in the villages,

emergency aid delivery was concentrated there. Some town residents interviewed by

Adam Branch in 2007 described resentment of the concentration of aid in the villages,

while others focused on the superiority of town life and the ability of town residents to

support themselves without emergency aid (Branch 4-5).

Data on population trends in Gulu town and district is limited; however, it is clear

that people continue to live in IDP camps throughout Gulu district today. The population

did not begin returning home until 2006; in 2007, 62% of the population was still living in "major camps," and by 2010, 83% had returned to villages (Pham and Vinck 24). The UNHCR reported in 2012 that approximately 30,000 displaced Ugandans were still living in IDP camps, transit centres and in local communities across Northern Uganda ("UNHCR closes chapter on Uganda's internally displaced people"). There are also reasons to believe that many of the urban displaced remained in Gulu town following the war, given the continued economic opportunity there, as the focus shifted from humanitarian aid to reconstruction and development aid (Branch 14). Further, the problem of land conflicts has hampered the return of individuals to their villages. Upon return, beginning in 2006, many northern Ugandans discovered that their land had been grabbed by the state military, occupied by relatives or neighbors, or turned into national parks (IDMC 18). Research by the Human Rights Center at the University of Berkeley from 2006 indicated that 35% of returnees surveyed experienced a land dispute in that year (Pham and Vinck 28).

The implication of such wide-scale terrorism, abduction, and displacement has been the disruption of social norms and traditions as well as social institutions. The family and extended family units have been torn apart; schools, community centers, churches, markets, and other social institutions have been destroyed; and major sources of income, such as farming, have dissolved through attacks and looting. Children who were abducted missed out on primary education and were in some cases forced to rejoin the primary school system because of a lack of adult remedial education. The Ugandan government's forced displacement of the population further disrupted schooling, as scattered communities were relocated into "much larger aggregates, ranging from a few

thousands up to tens of thousands," resulting in overcrowded and under-resourced schools (Dolan 78).

Background on Primary Schooling in Northern Uganda

The available literature on education in wartime Uganda is limited and scattered. Several reports offer bits and pieces of relevant information. Probably the most useful of these is a 2005 report by the Women's Commission for Refugee Women and Children, *Learning in a War Zone: Education in Northern Uganda*. Children and youth interviewed in 2004 by a team from the Women's Commission (WCRWC) spoke to the value they placed on education as "perhaps the most important way to prevent recruitment and re-recruitment into armed groups" (*Learning in a War Zone* 2). Yet, schools were far from save havens; the LRA targeted primary schools for recruitment, because they were often isolated outside of town centers (WCRWC *Learning in a War Zone* 3).

The over twenty-year conflict in Northern Uganda disrupted education in other ways. Following the Ugandan government's policy of moving the Northern Ugandan population into "protected villages" in 1994, schools were restructured into learning centers (Dolan 78). The Women's Commission describes these learning centers as "physical classroom structures or designated areas for learning (beneath trees)" (WCRWC *Learning in a War Zone* 3). The displacement of schools led to overcrowding: 140 Kitgum schools were re-organized into 34 learning centers (WCRWC *Learning in a War Zone* 4). It is unclear who was responsible for the building and organization of these learning centers, although it seems that most of this responsibility was left to community members, especially students' parents (WCRWC *Learning in a War Zone* 85).

Additional threats to schools were represented in the LRA's targeting of teachers as they commuted to school, which considerably affected the ability of headmasters to recruit, retain, and motivate teaching staff, much less trained teachers. The World Food Program reported 232 teachers killed in Gulu district alone in 1997 (Bethke and Braunschweig 87). This makes Robert Gersony's estimate that "more than 100 teachers" were killed from 1987-1997 appear very conservative (Bethke and Braunschweig 87; Gersony 79). The threats that faced students and teachers also affected the capacity of local governments to monitor and support teachers and delayed the national government's delivery of Universal Primary Education funds (Bird et al. 65, 68-69).

Although it is difficult to construct a complete picture from the available literature, the general consensus lines up with Annan et al.'s conclusion that "the schools in the camps were [clearly] not functioning well" (24). Actual teaching, much less basic teaching materials, was limited. A 2011 report by the Internal Displacement Monitoring Centre describes how students faced threats of abduction on the way to and from school. Although they do not specify a time, only "at a later point in the conflict," they write that some schools responded to this problem by reducing their hours of instruction (13). Still, many families naturally feared sending their children to school. Daniel P., one of the IDMC's interviewees reported how he didn't attend "because of the abductions—rebels would abduct children from school. That was in our mind always, so we wouldn't go too far from the camp" (13). Students' lives were further disrupted by the common practice of "night commuting" to avoid LRA abductions. A 2005 Women's Commission report identified approximately 44,000 night commuters in Gulu, Kitgum, and Pader districts,

71

"mostly children, adolescents, and women who flee their villages and IDP camps each night for town centers seeking safety from LRA abductions" (WCRWC *Resilience in the Darkness* 1).

Experiencing War

Violence and Insecurity

Discussions of the impact of violence on the primary schooling experience dominated interviews, given the LRA's tactics of indiscriminate violence against civilians and abductions of children. In response to a question about whether the LRA was targeting schools intentionally, a key informant explained that it might have been intentional, referring to the abduction of 139 girls from St. Mary's College boarding school in 1996: "when the Aboke girls were abducted, no one was protecting them." She followed up that the rebels were deliberately targeting villages because of "a complete lack of support; they could get … [whatever] they wanted" (Interview with the author, 25 April 2013, Gulu, Uganda).

The threats of attacks on schools differed for students depending upon their location. One student made the distinction between his experience in a village school in Lira and a town school in Gulu:

> In Gulu in town … it was not so bad. But if you go to … the villages surrounding Gulu town it was very bad. … but here in town they were not attacking it, why? Because there were already soldiers around town …
> (Interview with the author, 20 April 2013, Gulu, Uganda).

However, students from both the village and town described the chaos that resulted when they were dispersed from schools because of attacks. Another student from a town school explained: "I remember there was a day we were for our lessons, but abruptly

those LRA [rebels] came, at which they did make some pupils to jump through … the

windows. Each and every one … [had to try] his or her level best to escape" (Interview

with the author, 18 April 2013, Gulu, Uganda). One student from a village school added

similarly that "… if we are interrupted like that [by attacks] … you may hurt yourself in

the process of hiding …" (Interview with the author, 19 April 2013, Gulu, Uganda).

Another student from a village school elaborated on an experience in which the rebels

attacked an area near the school and she was forced to leave school for several days and

hide in the bush:

> … at around 10 … we just heard a gunshot ...we just come out through the
> window. And we were even confused where to run. … Then we just run, we
> continue with running like that, then we just go up to Dino [primary school] …
> but the soldier[s] … and … the LRA, they were just fighting seriously. … They
> were fighting for the whole day. Then we just run … for two days. And even our
> parents, they were looking for us … then after … [two] days we just come out.
> … that is why at school you cannot feel safe. … Sometimes you may be arrested
> [abducted] or you may be attacked. (Interview with the author, 21   April 2014,
> Gulu, Uganda).

Although attacks occurred predominately in the villages, severe attacks still occurred

within town and affected learning. A student in Gulu town during the war began the

interview by describing her experience of an LRA attack on the primary school she was

in at the time:

> … it was like that day … it wanted to rain, but it could not rain at that very time.
> So when we were in class, the teacher saw the rebels … but at that moment …
> students were inside … so on the process of the teacher telling us that, the rebels
> came, and the teacher just told us stay inside the class. Then when they came they
> put three gunshots … they wanted to know whether there are people inside the
> class. … So there are some few girls who came out of the class and they were
> shot dead. Then afterwards we the students who were in class, we all lied down
> under the desk. … So afterwards when we were down, one of the rebels came to
> class and so one of the students prayed from the door side, and when they came,
> they caned that girl to death. Afterwards they all brought us outside 'cause that
> girl has really exposed the whole class. So when they brought us outside, they

killed our teacher; after that they told us that they are going to take us outside …
then ... by that time … one of the rebels saw men that were moving by that time in
the road. So … since for us we were young at that particular moment, they had to
go and hunt for those men. That's how we escaped from the school. (Interview
with the author, 18 April 2013, Gulu, Uganda).

Several teachers described rebel attacks as interrupting their teaching, referring to

attacks both directly on the school and in the nearby area.   One teacher described the

rebel attacks as occurring two times per term, while another referred to them as occurring

once a month. Teachers' responses to the attacks differed at least partly depending on the

proximity of the attack. One teacher explained that students and teachers would run

away upon learning of attacks, elaborating that: "Here we have this direction … so when

they are coming from this direction we advise them not to go. At least they have to get a

better place …" (Interview with the author, 9 April 2013, Gulu, Uganda). Another

teacher described how nearby attacks were normal, so she did not stop teaching unless

the attack was near. Upon hearing gunshots, she explained that her approach was to

"stabilize and continue." She elaborated:

> Because you will say, is it near? Because if it is a far distance from the school,
> you say, ah this is a normal thing, and then you continue. Knowing it will not get
> you. It's far. It is not from near. But if you feel it is very near, of course you
> take cover. You take cover. Today it is not possible (Interview with the author,
> 12 April 2014, Gulu, Uganda).

Not only hearing bullets but also the presence of soldiers, army vehicles, the sound of

helicopters, and bombs going off were mentioned as indicative of nearby attacks.

Not only students but also teachers faced risks of abductions. A former primary

school teacher, described an experience of being abducted for a brief period, early on in

the war. She was able to communicate with her student, who was among the rebels that

abducted her, and he helped her to escape. In the following passage she describes the experience:

> So when they came they thought we were all from the market. We were all abducted … Good enough, one of the rebels was my former pupil. … I was moving very close to his feet. … And I was complaining, my son, where are you taking me? … He was telling me, madam, … [these] people will just kill you, don't say anything, let's just continue moving. So we moved. … There was a long line behind us. So for us I was very close to him, we were moving very fast. … And he just … [said], madam, you just fall here behind … so I fell behind there and the rest passed. (Interview with the author, 12 April 2013, Gulu, Uganda)

In addition to actual attacks, the threat of attacks affected teachers in the classroom. One teacher spoke of news of other teachers being abducted and killed:

> … it wasn't easy because some of the teachers fell victims. They were abducted and killed. And when they abduct you, they have been telling us stories, which are not nice, which … [bring] trauma and stress and stigma (Interview with the author, 4 April 2013, Gulu, Uganda).

The fear of attacks or ambushes was also described as generally unpredictable. One teacher described how "[teachers] have … suspicions there is going to be attack … anyone, anytime, and within the camp" (Interview with the author, 11 April 2013, Gulu, Uganda).

Most teachers, when asked about general challenges they faced, spoke of difficulty moving to and from school as well as to town to collect their salaries because of insecurity. A teacher from a village school described movement as not only "very, very difficult" but also "very, very risky" (Interview with the author, 11 April 2013, Gulu, Uganda). He explained that many teachers lost their lives coming to school, and some

teachers were killed in ambushes. Responding to a question about whether teachers continued to come to school despite these threats, he explained:

> You come. You keep on coming. But when you have learned the way is not smooth, you don't risk. You stay away. You don't go to school because if you try, then sometimes you end up going up to Sudan (Interview with the author, 11 April 2013, Gulu, Uganda).

Another teacher described the unpredictability of the insecurity:

> … sometimes it [rebel movement] is not very frequent. … When they are not around, like when they have gone to Sudan, you can rest … for a month. But even when they are like in Gulu, in Kitgum town, or Kitgum district, it can take for them only one day to reach here, so it was not easy, when now you begin to hear the rumors that they are town in Kitgum district, you become fearful … (Interview with the author, 9 April 2013, Gulu, Uganda).

This insecurity led to restrictions of civilians' movement and general late coming to school. One teacher explained that the army would restrict movement to and from the camps, so that teachers often did not reach school until around 9 a.m. and were required to reach the camp again by 5 p.m. (Interview with the author, 12 April 2013). A key informant described this restriction of movement similarly, saying that the military restricted movement out of the camps until 10 a.m., or when the military had finished their monitoring, and required people to return by 3 p.m. (Interview with the author, 27 April 2013, Gulu, Uganda). Students and parents described problems with teachers' late arrival or absence. Several students attributed this to teachers' living far away from school and the lack of teachers' quarters, while other students and parents attributed it to teachers' fear of abductions or ambushes on the way to school: "Yes the teacher[s] may not be there … in case … they heard that those people [the rebels] are near here. [They] don't come to school. They just run away" (Interview with the author, 21 April 2013, Gulu, Uganda).

The general state of insecurity caused teachers and students to at times sleep in the bush, in urban commuting centers, or in one case in "the mission," if they heard rumors that the rebels were nearby. This was more commonly described by students:

> So in order to save our lives we used to stay in the bushes and they take for us food; sometimes we sleep hungry. And in town [there] were some NGOs …; it's called Noah's Ark … that's where we used to spend our nights ... (Interview with the author, 20 April 2013, Gulu, Uganda).

One parent described how he sent his children to stay in town with relatives as a "way of dodging [the rebels] so that the child can get sleep in the night" (Interview with the author, 26 April 2013, Gulu, Uganda). In one case, a teacher described how she was forced to leave Gulu district and go to Kampala until 1999, when she returned to Gulu (Interview with the author, 12 April 2013, Gulu, Uganda). Another teacher described similarly how "some teachers ran away from teaching and they went outside the district" (Interview with the author, 16 April 2013, Gulu, Uganda).

Several students explained how sleeping in town affected their learning, one student explaining that "it was hard because if you come now where people are … you may not have that time to read" (Interview with the author, 18 April 2013, Gulu, Uganda). Another student explained that sleeping in town caused him to "not perform the way I should" (Interview with the author, 19 April 2013, Gulu, Uganda). A teacher explained that sleeping in town affected learning "badly," causing problems with late arrivals (Interview with the author, 12 April 2013, Gulu, Uganda). Beyond disrupting learning, traveling to and staying in night commuting centers was dangerous for children. A key informant NGO worker described the general conditions in commuting centers:

For example, in urban centers, children are left to come to these night commuter centers, without companies, which were very risky. It is your own child, you know the risk implications, for example, of a child walking 4 kilometers away … to come and sleep in town. … people who will just destroy the lives of the children and sexual abuses are there. But parents could say, you are safer in town … and yet, it is … [very] risky, even to send this child to the urban centers… but they don't take consideration of the risk implications as the child travel[s] … (Interview with the author, 5 April 2013, Gulu, Uganda)

Teachers' and students' descriptions of their safety at school were mixed. Several teachers explained that they felt secure, either because of the presence of soldiers or news on the security situation they received from the surrounding community.

We were safe because the soldiers were there in the school from morning until evening. 'Cause at the beginning these people could attack the school and … move with the children away. So the soldiers used to keep the school up to the time of the closing. (Interview with the author, 8 April 2013, Gulu, Uganda)

However, others described feeling insecure or uncertain about their security:

The safety, you would just pray, let it be okay, but you never know what might happen, so you cannot be so sure! … You may not be so sure whether you are very safe, because you would feel anything would happen at any time. … you never know. At all. You never know what might happen. (Interview with the author, 12 April 2013, Gulu, Uganda)

Students similarly had mixed responses regarding their safety. Students in the town generally responded that they felt safe because of the presence of soldiers or proximity to the soldiers' barracks, while students from village schools generally responded that they did not feel safe. One student from a village school explained:

At school at that time you cannot even feel safe. … Because in 2004, they brought me in this camp, eh? ... And in fact this primary school is even somehow far from that center. And we were having one soldier … and that soldier was

even a pupil in P7[25]. But he always came with the gun … (Interview with the author, 21 April 2013, Gulu, Uganda)

Several students distinguished between their safety moving to and from school and while at school. One student explained: "We had no fear, when you're at school … our main fear was to leave from home, then go to school, because from school there were many armies there … the soldiers are there to guard us" (Interview with the author, 15 April 2013, Gulu, Uganda)

Of the seven parents interviewed, five commented they felt that their children were in danger at school; these parents had a mix of children in village and town schools. One parent with children in village schools explained that: "You have doubt; the rebels may attack schools. [It was] more dangerous in the village than in the town" (Interview with the author, 10 April 2013, Gulu, Uganda) Another added: "… in the village, they were not safe because at any time the rebel can attack …" (Interview with the author, 24 April 2013, Gulu, Uganda). However, parents with children in town schools also described feeling that their children were "not all that safe" and "in danger" (Interviews with the author, 24 April 2013, Gulu, Uganda; Interview with the author, 25 April 2013, Gulu, Uganda).

These day-to-day experience of war clearly disrupted learning, as students and teachers struggled to commute to and from school, and once at school, faced risks of attacks and abductions. Despite an overarching prioritization of their learning, students also reported challenges with focusing on their schoolwork, reflecting back to the fear of attacks and an inability to find time to read at home or in urban commuting centers.

---

[25] Throughout the analysis, the abbreviations P1-P7 are used to refer to the primary school grade levels.

Likewise, teachers struggled to teach amidst interruptions of nearby attacks or gunshots, news of attacks and abductions.

Disruption of Social and Economic Livelihoods

In addition to posing a constant threat to life, the twenty-year insurgency also led to a depletion of social and economic resources in Gulu District and Northern Uganda. One teacher reflected on these issues, asking: "So for that matter, sometimes we ask ourselves the question that, what has the war really done? And how did it do so? One thing is clear is people were brought into camps, around the year 1996" (Interview with the author, 10 April 2013, Gulu, Uganda) He later continues to answer his question:

> I want us to also understand that immediately [when the] war started, many things were torn apart. Social infrastructure—you can look at human settlement, you can look at people being camped, you can look at the school infrastructures like buildings. You can look at the students' attendance at school. All these were seriously interrupted just because of the war. And … because of that … the result was … poor performance. Since then Northern Uganda has been trailing, if you look at statistically the performance in the country. (Interview with the author, 10 April 2013, Gulu, Uganda)

The Ugandan government's policy to displace 1.8 million people into "protected villages" or IDP camps was especially disruptive to individuals' livelihoods. One parent interviewed described the situation:

> At that time it was very hard to get foodstuff because you cannot go to dig because of the insecurity, and most people were not working. So we were depending on World Food Programme, and the food … [was] not enough, so you have to go and do some odd jobs to help you top up. (Interview with the author, 26 April 2013, Gulu, Uganda)

All of the parents interviewed described challenges in getting enough money to pay their child's school fees, and several mentioned problems with affording basic necessities. They attributed this to an inability to dig (farm) and, in several cases, extended stays in

the hospital that made it difficult for them to care for their children. One parent described

an LRA attack on the hospital where she worked, through which her nursing "papers"

were destroyed, causing her to be unable to work (Interview with the author, 25 April

2013, Gulu, Uganda). Speaking about challenges to students, one teacher added: "There

was also lack of food, eh? There was no way they [parents] could do their farming. They

had now to do odd jobs … to earn a living …" (Interview with the author, 12 April 2013,

Gulu, Uganda). Another teacher added that:

> The parents … sometimes you don't have enough food, you have to go and work
> for the food first, then … you come back to feed them. And also … [the food]
> that … [was] given by the NGOs was not enough; sometimes you find twelve
> people in the family … (Interview with the author, 4 April 2013, Gulu, Uganda).

After Jan Egeland's visit to Northern Uganda in 2003 and designation of the area

as "humanitarian crisis," NGOs begin to populate Northern Uganda and fill some of the

gaps, especially as they related to food insecurity (Dolan and Hovil 6). Almost every

teacher and student interviewed referred to the presence of the World Food Programme

within schools. One key informant described the situation:

> During … displacement, parents were not involved. Because many were saying,
> we are now in the camp, we don't have resources … that's why many NGOs were
> … providing for needs of children in schools. Uniform. Pens. Excess books.
> Textbooks. Meals in schools were mainly NGOs providing. Not parents.
> (Interview with the author, 27 March 2013, Gulu, Uganda)

Still, the poverty was widespread, despite NGO sponsorships and the presence of

programs such as the World Food Programme. Several students described lack of

resources primarily in terms of hunger in school and the inability of their parents to pay

for their school fees. One student described the situation he faced in relation to hunger in

school: "Because you known food at school is inadequate, you can not eat to your limit."

He added that "[o]bviously even if you are hungry, you cannot read, you cannot concentrate. Your mind will be on food, at what time will I get food" (Interview with the author, 19 April 2013, Gulu, Uganda)?

Overall, the shifting of many schools into learning centers hampered learning and teaching conditions and resources. One key informant described the situation:

> … the conditions were not very favorable. Some children would be [learning] under the tree. [There were] not enough classrooms. Schools would start late. Sometimes the rebels would attack anytime. ... It was kind of education in emergency. (Interview with the author, 1 May 2013, Kampala, Uganda)

Teachers described poverty and the lack of resources in terms of both the effect on their teaching and personal lives. One teacher mentioned that there were no classroom resources, while another teacher indicated that learning materials were available but facilities were not for a period: "In the past we used to study under the trees … [b]efore constructing the class, they brought tents. … And we used to write on the portable chalkboard when we were learning under the trees" (Interview with the author, 4 April 2013, Gulu, Uganda; Interview with the author, 8 April 2013, Gulu, Uganda). Other teachers added that additional challenges included low salaries, a lack of teachers' quarters to allow them to sleep near the school, and food scarcity.

This destruction of livelihoods through displacement in the camps contributed to the disruption of social norms; as people were unable to maintain their former means of living through farming, their focus shifted to survival. One key informant described a general lack of child protection which resulted, explaining that displacement led to a situation in the camps which normalized and under-reported sexual violence. In general, "… child abuses were very paramount … parents were refusing [to let] the children to go

to school not only because of the security but [also because] they wanted to use children

as child laborer" (Interview with the author, 5 April 2013, Gulu, Uganda).

Indirect and Social Violence

In addition to being a direct target of attacks, schools reflected violence indirectly,

primarily through the use of corporal punishment, the presence of the military within or

nearby the school, and sexual harassment and assault. Describing an initiative that was

developed to eliminate corporal punishment in schools, a key informant discussed the

prevalence and normalcy of corporal punishment during the war:

> Because, you know during the war … families [were] traumatized. You can just
> hit a child out of your frustration. These violent issues were so much. Even
> children seeing what the parents were doing … also … impacted … their
> character. (Interview with the author, 1 May 2013, Kampala, Uganda)

The issue of corporal punishment came up several times in interviews, as students

discussed their fear of or negative feelings towards teachers who used corporal

punishment, and key informants described programmatic responses to reduce corporal

punishment. One key informant stressed the importance of reducing the use of violence

in schools especially because of the impact that violence had on formerly abducted

students. He described a scenario that occurred before a training on alternative forms of

discipline:

> … there was a teacher in one of the schools here in Gulu and in that class there
> was a child who was formerly abducted and came back. So this child never
> wanted to see a teacher using a cane in the class. And after [the] psychosocial
> training, we told them, do not punish using the cane. Use friendly approach. …
> So this teacher … was warned by that pupil, I hate seeing the cane. Because I
> went through a lot when I was in captivity. … Then the third time the pupil got
> up, grabbed the teacher by the neck, and started caning the teacher. … So [we
> told the teachers] let us change the approach of talking to them, of handling them,
> and so forth. So thereafter we did not experience this kind of scenario anymore
> (Interview with the author, 27 March 2013, Gulu, Uganda).

Another key informant discussed the impact of an NGO program which was successful in

sensitizing teachers on alternative approaches to corporal punishment:

> Before the training? Of course there ... [was] a lot of corporal punishment. [It was] much reduced, and we have good testimony for parent schools. Children [were] trained on their rights and we also trained teachers on rights of [the] child. UN convention on rights of the child. Teachers quite really reduced corporal punishment (Interview with the author, 1 May 2013, Kampala, Uganda).

Three students mentioned feeling negatively towards teachers who were using

corporal punishment. One student explained how she struggled with a particular subject

that was taught by a teacher using corporal punishment, and that she went to other

teachers for help: "[I was] doing some other numbers, which … I have not understood

when we are for the lesson and going to other teachers apart from that teacher, 'cause I

just hated him because of the way he had been treating me …" (Interview with the

author, 18 April 2013, Gulu, Uganda).

From interviews, it is unclear when and whether corporal punishment was really

reduced in schools. However, when asking teachers to describe the rules they set for

their students, several described a participatory process of setting rules, explaining that:

"we normally build them so that we set a guided rule together"; "… they make their

controls ..."; and "… sometimes we discuss the capacity of the punishment he should be

given … as a class you discuss" (Interview with the author, 16 April 2013, Gulu, Uganda;

Interviews with the author, 8 April 2013, Gulu, Uganda). It is possible that because

corporal punishment was a normal practice it was not brought up frequently by teachers,

or that teachers did not want to discuss the use of corporal punishment with a Western

researcher. Two teachers mentioned caning as a possible punishment for students for breaking rules, while four students described the use of caning as a punishment in the classroom.

Violence was also indirectly reflected in schools through the presence of the UPDF soldiers, especially within town. For most students, this seemed to represent security. One student explained how he felt more secure in the town than in a village where he had previously been in Lira district:

> Because … from the village there were not enough soldiers that were guarding the school; in fact there were no soldiers. Because the soldiers were there in the village but … their camp was in a distance, some good distance from where the school is … so when the gunshots start they would be very far from us, so we … [would] have to find our [own] ways. (Interview with the author, 20 April 2013, Gulu, Uganda)

However, one parent described the presence of the soldiers as problematic, explaining that: "… when there are soldiers, people are not safe because they will fight … they will attack at any time … even the staying of the soldier within the school was scaring the children …'cause … when you see the guns … you will not be safe" (Interview with the author, 24 April 2013, Gulu, Uganda).

Sexual violence and harassment posed an additional challenge, especially to female students, during the war. Interviewees described instances of teachers' "eloping girl learners," and in general, early marriages and pregnancies (Interview with the author, 9 April 2013, Gulu, Uganda). One female student explained that some teachers had "negative attitudes towards girls" and would "call the girl that the girl should be their wife" (Interview with the author, 21 April 2013, Gulu, Uganda). While these attitudes were not necessarily a direct result of the war, the presence of conflict certainly

85

exacerbated challenges for girls by disrupting social norms, as one key informant explained that the war and displacement in the camps had created a situation in which sexual assault became normal, and people were negligent about reporting it.

In these ways, schools remained dangerous on several levels for children throughout the war, characterized by physical endangerment through exposure to rebel attacks and the indirect reflection of this violence in schools through corporal punishment, the presence of soldiers, and sexual assault and harassment of students. However, students, teachers, and parents prioritized learning throughout the war and pursued strategies to support continued schooling. Still, these threats combined to negatively affect students' quality of learning and progression through and completion of schooling.

Effects on Teaching and Learning

Primary School Intake

Conditions of accessibility of displaced schools and an overall culture which prioritized learning created a situation which supported high intake, enrollment, and attendance of students throughout the war. A teacher explained that "at that time, we had very many children in classes because once children came from the villages, they were many, many … large numbers of children in classes, as compared to now" (Interview with the author, 4 April 2013, Gulu, Uganda). One student described how the proximity of schools improved access: " … life was easy, 'cause you know the school was near. And … now you … have to walk … many miles to come to school" (Interview with the author, 15 April 2013, Gulu, Uganda).

The primary indicator that intake rates remained high during the war is an overarching culture which prioritized learning and education. Presumably, this attitude towards learning led to high intake as well as enrollment and attendance rates, as students, parents, and NGOs used a variety of strategies to support children's access to schooling. Most students emphasized in general the value and importance of attending school. This value was reflected in interviews, as many students explained that they went to school because of a "need to be educated," "to have knowledge," "be someone," "be … someone important in the future," improve on the lifestyle of the family, "achieve my goal," and "help other people who have not studied" (Interviews with the author, 21 April 2013, Gulu, Uganda; Interview with the author, 15 April 2013, Gulu, Uganda; Interviews with the author, 18 April 2013, Gulu Uganda). Several described aspirations, such as becoming a doctor, nurse, teacher, pilot or president of Uganda. One student elaborated on his feelings about the importance of schooling:

> … what I found … was important [is that] … [I] need to go to school … to widen my … level of reasoning. Because … if you are not someone who is educated, you will not be having that mind of reasoning things … at times even small or mere cases may defeat you. That's the main reason as to why someone who is educated can easily be differentiated from someone who … never went to school. So my main reason as to why I choose to study was to uplift those ones who shall not be in the right situation of going to school by … giving that information that I … get from school to them. (Interview with the author, 18 April 2013, Gulu, Uganda)

In addition to students' prioritization of learning, it appears from interviews that students also viewed school as an aspect of their lives which represented normalcy or stability. When asked about their motivations to attend school during the war, students cited relationships with their friends and teachers, in several cases acknowledging that although it was a difficult situation, they were able to enjoy being with their friends. One

student even added that she would encourage friends who were being kept at home by their parents to escape and come back to school so that they could be together.

Several students described school as a place where they could forget about problems that were worrying them. One student explained: "You know when I go to school, I just feel good. … [I have] my friend, [I] socialize, even I forgot other bad things that were happening. And even as I come to school, I learned many things" (Interview with the author, 15 April 2013, Gulu, Uganda). Another student added: "'Cause when I am at school I don't think of any other factors. Like poverty … even the violence … when we are school you just stay, you don't think about it" (Interview with the author, 19 April 2013, Gulu, Uganda).

Motivations among students to attend school also extended to material incentives, such as food within the school or financial or material support (such as through textbooks or uniforms) to attend from parents, family members, or NGOs. Several students cited the importance of safety, either because of the presence of soldiers in the school or proximity to the barracks. Other students described how a parent or a teacher motivated them to continue with their schooling by advising them on the importance of schooling and generally encouraging them to "persevere." In several cases, teachers went to students' homes to encourage them to continue attending school. In addition to parents and teachers as role models, several students referred to NGO workers who were distributing food in the schools or camps, college students, or family friends as role models. One student explained: "What motivated me was … seeing other people who are educated … their standard of living; that's what made me to go to school 'cause I was

thinking that at least if I study I might be like them in future" (Interview with the author, 18 April 2013, Gulu, Uganda).

Students' motivations to attend school became clear as they described dealing with the challenge of a lack of school fees by doing manual work during the holiday or approaching their teachers with the problem. One student described how he used both approaches:

> We were not having enough money … I went and explained to our teacher. There was a certain teacher who told me that … when you are in holiday, you need not to sit, you have to do this simple, simple jobs, like laying bricks, selling these simple, simple things, so that you can generate money. Of which I was doing … and paying my school fees. (Interview with the author, 18 April 2013, Gulu, Uganda)

Another student echoed this approach:

> Sometimes … you can go and negotiate yourself. … You go and negotiate. You tell them what is on the ground. … during holidays, you pay even like for those manual works. … those ones which you can manage. Then you cope up (Interview with the author, 18 April 2013, Gulu, Uganda).

Teachers also discussed strategies they used to address challenges to students' attendance. These related primarily to developing relationships with students' parents. In the following exchange, one teacher describes an initiative called "school family initiative" to follow up on students: "All the children in the school were distributed to the respective teachers. … you will act as their parents, the parents of those children given to you. So that you become very close, make proper follow up, then you consult the parents" (Interview with the author, 11 April 2013, Gulu, Uganda). Responding to a question about the success of the program, he elaborated:

> It was very successful. Because some of the parents were even very negligent about the education of their children. So when we follow them, sometimes the

parents need also to be given guidance and counseling (Interview with the author, 11 April 2013, Gulu, Uganda).

Another teacher added that, in response to girls' absenteeism:

> … we make follow ups. When the girl … [has] dropped out of school, we follow, we go to the parents, we talk to the parents, we find where the girl is, if the girl has gone, maybe … we go and talk to the girl and bring the girl back to school (Interview with the author, 11 April 2013, Gulu, Uganda).

Several additional teachers referred to the importance of looking at the relationship between the parent and the child or understanding the child's family situation to understand the child's problems in the classroom:

> 'Cause there may be some problem, either from the school or from home. … You also visit the parents and share … maybe the parents has divorced, so … [they] can not even meet the needs of that child well. So that one you have to address (Interview with the author, 8 April 2013, Gulu, Uganda).

Two students explained that they did not go to school willingly, but were forced to go by their parents. This reflects the general sentiment that emerged from student interviews that their parents wanted them to go to school. The parents interviewed echoed this sentiment explaining that they wanted or needed their child to study. One parent explained: "Maybe the time that the war might end, your child might be of no use. I want my child to study and have this knowledge" (Interview with the author, 10 April 2013, Gulu, Uganda). Parents also explained that they would sometimes keep their children at home if the security situation was not good, but in general, that they wanted their children to go to school. One parent described how she motivated her children to go to school through singing them songs daily, one of which was about becoming a teacher and another which listed various professions which required schooling (Interview with the author, 10 April 2013, Gulu, Uganda). Another parent explained the importance of

90

motivating his children to attend school by buying them new uniforms and school bags,

which made his children proud, and in some cases escorting them to school when they

did not want to go (Interview with the author, 24 April 2013, Gulu, Uganda).

However, several of the parents interviewed described other parents' keeping

their children at home. One parent explained:

> … so many, so many [did not want their children to go to school], that's why I've
> told you so many children during the war … didn't even go to school … one day.
> … First of all they said … their children may be … abducted by the rebels or the
> rebel[s] can even attack the schools and abduct their children … (Interview with
> the author, 24 April 2013, Gulu, Uganda)

He attributed this to a lack of education: "[There are] certain people in the village who

have never gone to school and they don't know … the goodness of education." However,

he also added that, for himself, he wanted his children to go to school because, having

dropped out of school at Senior 2, he had seen the "badness of not being educated"

(Interview with the author, 24 April 2013, Gulu, Uganda). A key informant added that

parents' wanting to keep children at home was a key challenge because of the survival

mentality that was adopted during the war. Children were kept at home "not only

because of the security but they wanted to use children as child laborer." She elaborated:

> Because the trauma that the communities had made them to … forfeit a lot of
> opportunities. Because the whole focus is we are insecure. … All we need is to
> first save our life. So the issue of education was not a priority. The issues of
> health … [were] not a priority … the most important issue was life. (Interview
> with the author, 5 April 2013, Gulu, Uganda)

An additional key informant echoed that parents' keeping children at home was at times a

problem during periods of insecurity:

> … when the rebel activity was at a peak, most of the parents … [did] not allow
> their children to go to school. Because on the way … to school, the rebels can

come and abduct the child. So parents were not willing to send their children to school. (Interview with the author, 23 April 2013, Gulu, Uganda)

Where parents were not willing to send their children to school, NGOs responded through programs which sensitized parents on the importance of school attendance and education. One key informant described an approach which was both soft and critical of parents, explaining that the main message of the program was "translating the mind of community to believe that, yes, tomorrow will be better and we need this child. … Invest in this child tomorrow, do not think about benefitting … [from] this child today" (Interview with the author, 5 April 2013, Gulu, Uganda). She added that the approach was at times harsher, to send "the strong message of, as far as even threatening communities that we're going to arrest you, if we find that you're doing such violations to children," referring to the government mandate that parents send their children to school through UPE (universal primary education) (Interview with the author, 5 April 2013, Gulu, Uganda). Another key informant described a program which sensitized parents on the importance of sending their children to school through community dialogue:

> … the program really resulted into the idea of sending the children to school, let them stay in school and at least let them complete a cycle of primary school. So it was through … [this program] and then education dialogue at school level because ... school level … is where we mobilize all parents together with the local leaders … let them educate themselves on the importance of education with some success stories. [For example] … you see … this daughter … she has completed her primary school, she has gone to university. … And this [is] how the community … [was] able to send the children to school … and enrollment increased. (Interview with the author, 24 April 2013, Gulu, Uganda)

Another way that NGOs promoted primary school access was through building infrastructure, such as learning centers and sanitary facilities for schools. One key

informant described the building of a road which improved access:

> … access to school was … paramount. And through [a] labor based approach, … [we were] able to facilitate the opening of [a] community access road that leads to … the primary schools, in the hard to reach sites (Interview with the author, 5 April 2013, Gulu, Uganda).

Another key informant described a similar approach:

> Now if there … [are] bad roads that can lead to … late coming of our children, what can we do? We can mobilize as a community, we clear off this road so that our children are able to wake up earlier, then come to school (Interview with the author, 24 April 2013, Gulu, Uganda).

Primary School Survival and Completion

Despite the improved access to schools during the war, it appears from interviews that the quality of learning suffered overall. This effect on the quality of learning presumably led to high drop out rates, high absenteeism, and decreased survival rates, reflecting Dickson et al.'s observation that "schools, in general, will not retain large proportions of students to the final grade unless the education experience has quality" (109). Improved access, through proximity to the camps, was associated with overcrowding and constrained teachers' abilities to deliver quality learning. A key informant described the situation:

> In each camp there was a learning center, which comprises clusters or schools which have been displaced. Any child would go to any school near. … There were so many children in the schools. And the classes [were] too full. [It] range[d] from 100 to over 200 in a class. (Interview with the author, 27 March 2013, Gulu, Uganda)

Several teachers commented on the problem of "mass enrollment" as a challenge to their teaching during the war. One teacher from a town school explained:

> … in 2004 … I had 116 children in the same class. You could hardly stand. … You just try to pretend you are turning around, yet your legs are fixed. It's very

hard to have … class control ... and practically no learning takes place in such an environment. (Interview with the author, 10 April 2013, Gulu, Uganda)

A teacher from the village explained having had more than 250 pupils in a class. Another teacher referred to the problem as one of "congestion and control," explaining similarly that enrollment was very high during the war, adding that the problem was exacerbated by a low number of teachers (Interview with the author, 10 April 2013, Gulu, Uganda; Interview with the author, 9 April 2013, Gulu, Uganda). In some cases, this meant that soldiers were required to teach, as his school was located within the barracks. Teachers who were trained in some cases left the district: "most of them ran away, to other safer places, like beyond Karoma. … They used their papers, they were able to get some other job, outside. But those who just stopped in lower level, they were coming to teach" (Interview with the author, 4 April 2013, Gulu, Uganda). Several teachers commented directly on the effect that high enrollment had on quality, one teacher explaining: "We are just keeping the children in the schools. We are not providing learning strictly. Just to keep them" (Interview with the author, 4 April 2013, Gulu, Uganda).

The effect of insecurity on teaching and learning became clear through interviews, as teachers' and students' descriptions of the challenges they faced to their learning most often reflected back to their inability to concentrate or disinterest in learning due to fear or experiences of violence. One teacher described how he witnessed the impact of violence on his students' learning:

> In 2006, when I first started to teach here, I remember a child. The child simply came and told me, teacher, for me, I'm not getting what you are telling me. … what you are telling me reminds me about someone I saw being killed. How do you come and tell me that I should love somebody and yet people are supposed to be killed? Why do you tell me I have to respect yet they were kicking me? I had to stop my lesson. … Behind there is a mango tree which has just been cut. I sat

with the child there for one complete hour, trying to share with the child. … The child told me she didn't see any meaning in going to school. So she is being told to go to school, but she doesn't see the meaning. So in such an environment, psychologically the child was already … out of school. Physically the child was present, but the mind is not there. And you know, you only learn when there is a will. If you don't have the will to learn you won't do much at school. (Interview with the author, 10 April 2013, Gulu, Uganda)

Another teacher added:

Even in the classrooms, you find sometimes children are sleeping. They could not concentrate because they did not have enough sleep. Sometimes they are thinking of their parents, in case their parents are abducted … so it wasn't easy (Interview with the author, 4 April 2013, Gulu, Uganda).

Several students described an inability to study, referring to events that had made them lose interest in studying or a capacity to study, such as the death of friends within a particular school or the death or abduction of a parent, and almost every student referred to interruptions to their learning related to rebel attacks; these interruptions included hearing landmines, gunshots, the explosion of bombs, or rebel attacks on the school or in the nearby area. One student explained the effect of the insecurity on his learning and ability to concentrate in school as causing him to feel "all the time in fear," explaining that this fear compromised his ability to study (Interview with the author, 15 April 2013, Gulu, Uganda). Another student added:

You know when you are suspicious, your mind will be unstable. … You will mostly put your mind on that dangerous [thing] you are thinking of. You will not study. Though you can be in class bodily but spiritually you will be somewhere … (Interview with the author, 19 April 2013, Gulu, Uganda).

Another student described the effect as "mental trauma" or "that feeling … [that] something is going to happen" (Interview with the author, 18 April 2013, Gulu, Uganda).

One student framed her perspective in terms of the returns to attending school:

At that time going to school was not … profitable for me because sometimes you may … go and come back without even taking [anything] at school.... You may just [hear] … they [the rebels] are near. Then you just run from school (Interview with the author, 21 April 2013, Gulu, Uganda).

One teacher commented directly on the effect of poor quality of learning and students' progression by using the term "automatic promotion," referring to universal primary education (UPE), explaining:

There was a policy … [of] automatic promotion. UPE policy. … So a child is free to continue to the next level whether [or not] he is … ready. This one also really depends on the way parents … perceived … UPE. … Here parents will say, this one is an automatic promotion, that my child will go to the next class. Not knowing that when the child goes to the next class, he will find more problems, and he may not continue … to secondary school. (Interview with the author, 12 April 2013, Gulu, Uganda)

A parent used the same term, explaining that he eventually moved his children from village to town schools because of the poor quality:

… they were just giving automatic promotion. You just complete one year, go to the other one … so in … primary school it was so bad because even if you fail, [you are promoted]. … [A student in] P1 up to P6 doesn't know how to write his or her name because of that automatic what? Promotion (Interview with the author, 24 April 2013, Gulu, Uganda) .

Commenting on students' completion rates, one key informant explained that:

"Quality was a challenge. So many children [were] in school. Most of them would go up to P7 and complete ..." (Interview with the author, 1 May 2013, Kampala, Uganda) Initially this statement may sound contradictory, but it reflects the policy of "automatic promotion" described above, through which children were funneled through school without attention to the quality of their learning. Despite this focus on passing students

96

on to the next grade, this policy likely led to drop-outs in the later years of primary

school, before secondary school, as students fell further and further behind.

It is possible to extrapolate the effect of the war on primary school survival and

completion more directly by looking at drop-outs and absenteeism. One key informant

explained the problem of absenteeism and drop-outs generally:

> And then absenteeism … if rebels cross a place, pupil[s] will not come that day.
> They have taken refuge somewhere. They feared for their lives to come … so
> absenteeism was really very, very common. And then dropout was also common
> because some pupils' parents could be abducted … [they think] why should I go
> to school … who can look after me? And then some children themselves were
> even abducted. Maybe for two months, one year, something like that. When they
> come back, they feel, why should I go back to school? —the trauma, the stigma,
> and what have you. And then … more so the girl child, was [facing] high level[s]
> of early marriages … a lot of pregnancies. Because you know the state of the
> camp was not very good. (Interview with the author, 27 March 2013, Gulu,
> Uganda)

From key informant and teacher interviews, it appears that drop-out of students was a

problem throughout the war, due to parents' inability to cover school fees and in some

cases, as described in the passage above, early pregnancies or marriages. Commenting

on drop-outs due to a lack of support from parents, one teacher explained:

> Some students dropped out because of the challenges. Sometimes their parents
> were abducted, sometimes some of their parents were killed. Now they will
> remain alone, there is nobody who could … give them that support … so they had
> just to keep … alive ... (Interview with the author, 4 April 2013, Gulu, Uganda).

Another teacher added: " ... the parents themselves … were just making effort to take

their children to school, but sometimes there was problem paying ... so whenever it

comes time of payment … some of the children are chased away," adding that the

children were then unable to take their exams (Interview with the author, 8 April 2013,

Gulu, Uganda). One teacher explained that pregnancies led to the drop-out of female students, as they were not allowed to remain in school while pregnant (Interview with the author, 8 April 2013, Gulu, Uganda).

Considering the effect of the war on primary school intake, survival, and completion in Northern Uganda supports the hypothesis that the effect of conflict will be more apparent on survival and completion rates than on intake rates. Intake rates as well as indicators of participation may, in fact, increase during periods of conflict, as schools represent the most physically secure places for children to be and symbolize future stability of continued education and employment. However, as students are pushed through to the next grade without attaining a quality education, they will eventually drop out due to low quality of learning, physical danger of attending, or a lack of financial support.

Findings and Implications

Schooling as Protective

Despite the many dangers posed to students and teachers during the war, teachers and students prioritized school attendance, emphasized the importance of positive relationships within the school, and employed teaching and learning strategies which supported students' well-being, especially through "social learning." Both teachers and students emphasized the importance of positive relationships within the school. Among the teachers interviewed, most referred to their relationships with other teachers as positive, using language to describe the relationships such as "friendly," "cooperation," "encouragement," and "teamwork," for example through marking lessons together, team

98

teaching, or substituting for each other, or helping teachers who had become injured.

One teacher used the phrase "maximum togetherness" to describe teacher relationships:

> Relationship was not bad. In fact, during that time, I could say people were …
> eager to know where is so and so? … You see that there is maximum
> togetherness. You feel that if your brother your sister or your colleague is not
> with you together. (Interview with the author, 5 April 2013, Gulu, Uganda)

Several teachers described positive relationships with their students as they

discussed their motivations for teaching during the war: "What I enjoyed at that time was

the actual teaching. … And I felt the actual duty of teaching was a very nice activity. I

enjoyed because even the learners are very friendly" (Interview with the author, 9 April

2013, Gulu, Uganda). Several other teachers explained their motivations for teaching in

terms "love for those children," "the love of pupils [and] helping these young ones," and

desire to see a child progressing (Interview with the author, 8 April 2013, Gulu, Uganda;

Interview with the author, 9 April 2013, Gulu, Uganda; Interview with the author, 10

April 2013, Gulu, Uganda).

In general, students echoed teachers' sentiments that relationships were positive,

explaining that their motivation to come to school came in several cases from their

teachers. They described teachers as encouraging them, mentoring them, being close to

them, kind, friendly, and approachable. Many students also described how their teachers

were giving them advice and helping them prepare for exams. One student explained:

"They were like parents to us. To me. 'Cause for me I had my personal problem [in] …

math … so at times I could go to them after they have explained … I go and do … some

practice when I am alone. So it was like they were helping me a lot" (Interview with the

author, 18 April 2013, Gulu, Uganda).

Students were generally positive when they referred to their relationships with their fellow students, describe them in terms of being together and close, for example, discussing lessons together, eating together, playing together, sitting together, and being happy together. Generally, when students spoke about their friends, they seemed to be tapping into an aspect of schooling that had remained normal for them during the war. One student, for example, explained: "… I used to be happy with my fellow pupils because at times, though we were in a hard condition … we could come together and share things … we share a lot of what? Stories, we laugh. Those kinds of things" (Interview with the author, 18 April 2013, Gulu, Uganda).

Another theme that emerged was one of cooperation and problem solving, as students explained that they often relied on their friends to advise each other in hardship. One student, whose mother was abducted, explained how she was able to find some relief through sharing with her friends:

> I started sharing my heart with some whom I trust because I had a friend called [J] … she knew about my problems so much. … So we could share problems among us and we see [the] way forward, how to overcome it. … And always that's why I made myself as always I should be happy and smile in order to forget about all my problems. (Interview with the author, 20 April 2013, Gulu, Uganda)

In addition to the protective element of relationships, learning took on a protective element for students as well. Almost all of the teachers and students interviewed described examples of "social learning" or "a range of knowledge, attitudes, and skills that children can learn in school that will help them live better and safer lives" in the context of conflict (Kirk and Winthrop 642). In fact, when asked about their teachers' teaching strategies, students frequently responded by describing how their teachers advised or mentored them rather than by describing academic learning. One student

explained: "Those teachers, they were not helping us academically only. But to some extent, when we are … having some difficulties in any situation" (Interview with the author, 18 April 2013, Gulu, Uganda). The advice that students described ranged from advising them to read hard, how to study, how to be safe, to be respectful to elders, to be respectful to fellow pupils, to be punctual, how to dress, how to behave, and to be patient because the war would end. One student described specifically how his teachers advised him on matters related to personal security: "Okay, they [teachers] can give you a trick, eh? That if you met those people [rebels] on the way, you can pretend that you are very shy! Then they will see this one, ah, he is still a young boy … then you just go" (Interview with the author, 21 April 2013, Gulu, Uganda).

The prevalence of teachers' advice-giving was reflected in teacher interviews as well. Teachers described giving advice related primarily to students' security and in several instances encouraging them to continuing with their education. One teacher explained: "We are trying [to teach] things that are just supposed to be taught in the classroom … we are also teaching them how to come over those challenges, telling them what to do, in case of danger …" (Interview with the author, 4 April 2013, Gulu, Uganda). Another teacher elaborated on the security-related advice:

> Of course we were creating awareness to the children that once you see things are like this, when you see people … you should not move near them. You should be aware that those are wrong people. And always not to be moving alone. And moving to bad places deep in the villages. And staying alone in the home. … Those are the messages we are telling the children. (Interview with the author, 4 April 2013, Gulu, Uganda)

Teachers also advised children to "not to go back to the bush again" and "not to stay recklessly, so that … [they] may be abducted again" (Interviews with the author, 8 April

101

2013, Gulu, Uganda). One teacher explained that he and his fellow teachers would

organize dramas once a term to teach children about the dangers of landmines "to make

them [students] be aware" (Interview with the author, 8 April 2013, Gulu, Uganda).

Teachers also referred alternately to other forms of advice-giving through

guidance, counseling, and mentoring. The terms guidance and counseling were

frequently used together or synonymously. One teacher explained his understanding of

guidance and counseling:

> … when I'm doing guidance and counseling, I don't preach. 'Cause when you
> are preaching you only tell, you talk, talk, talk, talk. But when you are giving
> guidance and counseling, there is question, there is answering. So that is why
> most of them [students] were coming to me. (Interview with the author, 16 April
> 2013, Gulu, Uganda)

Other teachers use "guidance and counseling" to describe how they developed close

relationships with students so that students felt comfortable sharing their problems. One

teacher described the general approach that he learned through a training:

> … each of the teachers help the children from P1 to P7. So if you are a male
> teacher, you become the father of those children, if you are female teacher, you
> become the mother of those children. So any problem that the child has, the child
> is free to come tell you, as the mother or the father. And you ... [help] the child
> handle the problem. (Interview with the author, 9 April 2013, Gulu, Uganda)

A female teacher elaborated on her experience with what she referred to as guidance and

counseling, specific to advising girls who were returnees to stay in school:

> You be close to them, when you see they are moved … you come and begin to
> talk to them … as if even you do not want to know what has taken place, but
> you come as a friend. So you make them … your friend. And when you see, oh,
> the clothes … [are] torn, you begin to ask, as if you do not know why the clothes
> … [are] torn, so they begin to reveal certain things. (Interview with the author, 9
> April 2013, Gulu, Uganda)

Several teachers described the dialogue strategies they used specifically in responding to returnees in the classroom:

> Yes, some of them … had a lot of trauma. It wasn't easy. You find them, for a little time, they would concentrate, but sometime[s] … even the eyes would turn red, and some of them would just start crying, and making noise in the class. You have to handle that person. You have to … take that person maybe to a room which is specifically put to help them … sometimes you have to talk, you have dialogue, how are you feeling, do you want to go where your people are? Then if … the child accept[s], you have to give the child [a] chance to go (Interview with the author, 4 April 2013, Gulu, Uganda).

Other teachers described helping students who were returnees in socializing with fellow pupils. One student described implementing an activity on how to make friends through a school-based club called child resilience club.

> … some of them, they do not like their friends, but after those kind of exercises … they become friendly because there is one exercise … getting friends, having friendships with fellow pupils. So with that they now become friendly, they come together, because others are very lonely, and they feel like staying with their friends either because they are thinking all the time what has happened to them or what. … all the time they fear they are lonely … they feel not loved. So during those exercises, they begin to feel they have that esteem. … So some of them now begin to reveal certain things that really they could not reveal …
> (Interview with the author, 9 April 2013, Gulu, Uganda)

Several teachers referred to a training on guidance and counseling offered by the Norwegian Refugee Council which took place in Layibi Teachers' College. One teacher described the training: "They were teaching us how to handle these children who are coming from the bush, how to guide them. How to handle them in the classroom situation" (Interview with the author, 4 April 2013, Gulu, Uganda). In addition to the dialogue approach, several teachers identified that what had helped them most from trainings on guidance and counseling was the ability to identify returnees or orphans so that they were able to identify the child's problem and work with them to address it.

103

One teacher explained: "The training we had made me to handle my children very, very well. And it's helping me up to now. 'Cause I [learn]…how the child behaves, how she talks, how she dress[es], I can identify even if it's an orphan among them" (Interview with the author, 8 April 2013, Gulu, Uganda). Another teacher added:

> We were able to identify those with extreme trauma. … So if you identify them … we were given [guidance] and counseling room. Teachers were assigned to guide those [children]… you become close to the child. You ask him or her many questions to identify the problem … and … after that, you'll know how to handle the child. (Interview with the author, 11 April 2013, Gulu, Uganda)

Describing academic teaching, teachers referred to a wide variety of methods that they used, ranging from "play" methods for younger learners, to child-centered methods, to lecture formats. Several teachers emphasized the efficacy of child-centered methods, referring to a training that had been provided by the Norwegian Refugee Council. One teacher described his implementation of the method through a discussion format:

> … whenever you are in the class, you will be as a guide, you introduce the subtopic. The first thing, you have to review the previous lesson, and then you introduce the new subtopic which you are going to handle … you ask them questions, if any has an idea of that subtopic. You will discuss with them. … automatically, they will get at least something out of your lesson, because once a child says something, it will get into her mind or his mind, rather than the teacher … explain[ing] each and every thing to the child. (Interview with the author, 8 April 2013, Gulu, Uganda)

Another teacher added:

> … during the war, the method that we were using was being given by the NRC, that is … child-centered method. … Most of your teaching, is to be …participatory. … Like if … you are teaching … let me say science. … You are teaching maybe about photosynthesis … you bring that live material, then you explain when they are also there, then they also join in to explain, so that it should be participatory. (Interview with the author, 5 April 2013, Gulu, Uganda)

Several teachers described using the environment to demonstrate concepts or taking

students on field excursions to nearby, secure locations. One teacher described this

approach:

> … when we were teaching about … the world war, the typical example was … seen now in the people who are staying in the camps. And also like in science when we are teaching about this food. … You see the effect with the … disadvantage of not having enough food … so it was just there. You could just see it physically. We also have the experience ourselves. (Interview with the author, 9 April 2013, Gulu, Uganda)

Another teacher interviewed added that he engaged students in the environment when

learning was taking place outside, as young students were easily distracted:

> … if there is something new … for you as a teacher, you have to be also very fast and say, hey, what is this one here? So they will tell you. … At least they will listen to you. … After saying now, if supposing it's a car. What is this? This is a car. How many tires does it have? How many wheels? They may say two, four. So it keeps them busy when it comes like that. (Interview with the author, 8 April 2013, Gulu, Uganda)

Asking teachers about their teaching duties or day-to-day responsibilities elicited

more information about day-to-day activities that were carried on during the war which

supported a positive learning environment. Several teachers spoke about athletics, music,

dance, and drama (MDD), drama club, and GEM (girls' education movement) club

activities, although one teacher distinguished between the presence of these activities in

the town versus the village: "… all … [these activities] were being done during the war.

But only that it was being done within the town, not in the rural place" (Interview with

the author, 5 April 2013, Gulu, Uganda).

Asking students about these activities, both students from rural and town schools

described the presence of music, dance, and drama activities, as well as athletics and

other clubs. One student from the village explained: "During the war even athletics

competition was still ongoing besides the war and all these other things" (Interview with the author, 21 April 2013, Gulu, Uganda). Students commented on the presence of the same activities when asked about their school activities, adding in several cases the normalcy that these activities brought for them. One student explained:

> Mainly we were just studying … doing some clubs in the school. Those … make students … to just forget about those things and traditional dances which are being prepared every term. Debating clubs. Competitions (Interview with the author, 15 April 2013, Gulu, Uganda).

In other words, despite the continued interruptions, school activities continued, reflecting a school culture which in some cases rejected the norms of a society at war.

Students also contributed to maintaining learning and teaching operations during the war. Several students explained how they combatted challenges of being unable to study when they were sleeping in town by reading at midnight or reading at school. One student explained how she was unable to read at school, but she studied together with her friends at home in the evening. Other students described how they sought out their teachers when they were struggling with specific subjects. One student, who was struggling with a subject taught by a teacher she feared, explained her approach:

> I managed it by at times going to my friends. Helping me. Doing some other numbers which … I have not understood when we are for the lesson and going to other teachers apart from that teacher (Interview with the author, 18 April 2013, Gulu, Uganda).

Another student who had moved to a school within Gulu town from a Lira village school described how he had to "read a lot" to catch up and especially to learn English:

> … I realize that to combat such problems I just need to read a lot so I can do well, and that's why finally I did better than those ones who were laughing at me, and

106

some of them failed, but I didn't fail (Interview with the author, 20 April 2013, Gulu, Uganda).

Students in particular described strategies they used to stay safe moving to and from school. Most of these involved moving together in groups, finding another path when you see the rebels, traveling by a "path road" and not the main road, and being escorted to school by soldiers. One student added to this his "spy network":

> … I was having a very strong … spy network, that in case, those LRAs are like a distance, like say 20 kilometers from our school, now if the information gets to me, I was making sure that I inform my fellow pupils so that they get ways forward of leaving that … place. (Interview with the author, 18 April 2013, Gulu, Uganda)

> Several students and teachers, when asked how they coped with the challenges that were addressed in the interview, described a general resolve to "cope up" instead of describing specific strategies. One student explained his outlook:

> … there's one thing that I realized was that wherever there is problem, solution can emerge. So if you are fearing, if you are having any difficulties, if you're having any problem, you have to notice that solution is there. Just sit down and find a solution. (Interview with the author, 18 April 2013, Gulu, Uganda)

A teacher interviewed echoed this attitude:

> [To address] these challenges, we were … [using] coping strategies. There are some problems we could not solve but we were using coping strategies. Others you cannot solve, you just adhere to it, you persevere. And those we are able to solve, we solve them. (Interview with the author, 11 April 2013, Gulu, Uganda)

This attitude was reflected in teachers' responses to probing questions about how they continued teaching amidst rebel attacks: "You just stabilize and continue" and "… at times you just tolerate it like that. And you continue with classes" (Interview with the author, 11 April 2013, Gulu, Uganda; Interview with the author, 5 April 2013, Gulu,

Uganda). These responses reflect tacit strategies that teachers and students used to cope

with wartime challenges; because the war was such a way of life, students and teachers

frame violence and threats of violence, in some cases, as day-to-day experiences, and

they frame their responses to these challenges as likewise ordinary. Overall, students'

and teachers' strategies illustrate how schooling was not exclusively negative, but how it

also played a protective role for children during conflict through supporting learning and

teaching, including learning which helped students to stay safe from rebel attacks, social

activities which promoted a sense of normalcy and continuity, and positive relationships,

which helped students to address personal and academic challenges they faced.

CONCLUSION

Situating the case study within the quantitative analysis reveals similar findings from both approaches. Arguably, intake rates remained high during the war in Gulu District, while survival rates and completion rates arguably declined over time. While this analysis argued that intake rates would decline during conflict, the empirical findings demonstrated a more highly negative effect for completion rates (both of which are measured in relation to a theoretical population), which corresponds with the case study findings that access remained high while quality, and subsequently survival and completion, deteriorated. Considering the effect of civil conflict in other Sub-Saharan African countries might therefore reveal similar findings at the case study level, especially where conflict is characterized by indiscriminate violence against civilians and a widely displaced population and where social norms have supported the importance of education, even amidst conflict.

The findings from this research add to the evidence that progression through and completion of schooling are negatively affected during conflict, warranting further investigation of the performance of these indicators over indicators of participation. These findings echo the results of the 2010 UIS study which reported that, overall, indicators of children's progression through schooling were more visibly affected than indicators of participation. In some cases, the UIS researchers observed little to no impact on children's participation levels in schooling but a significant impact on

progression. Mack et. al's assertion that education is a "development indicator that …

appears to improve during many periods of warfare," should thus be reexamined, with

attention given to how education is conceptualized and measured and which indicators

are used. In fact, the effect of conflict on children's participation in schooling may not be

dramatic, whereas the effect on children's progression through and completion of

schooling is likely to be more pronounced.

Overall, it appears that the conflict and post-conflict periods are associated with a

significant decline in education indicators of attainment and completion. The post-

conflict period is also associated with a decrease in gender parity for net intake rates,

indicating a shift towards a disparity favoring males in the aftermath of conflict. Several

mechanisms were introduced to explain these patterns. Attacks and threats of attacks on

schools can lead to school closures, interruptions of schooling, and death and abductions

of teachers. Secondly, the displacement of students to neighboring countries may also

lead to decreased enrollment. Perceptions of the returns to education may change during

wartime, as students and parents no longer view education as "profitable," either due to a

lack of employment opportunities or the increased risk associated with commuting to and

attending school. Household labor allocation decisions may affect these perceptions as

well, as parents may withdraw their children from school for labor to add to the

household income, due to the increased constraints on livelihoods. Finally, conflict and

violence may be indirectly reflected in schools through discriminatory policies which

restrict access to certain groups or use curriculum or language policies to entrench

divisions along socio-ethnic lines. The use of corporal punishment may reflect conflict-

related stresses experienced by teachers, while sexual assault and harassment of students,

110

leading in turn to drop-outs, especially of female students, can reflect the conflict's larger effect on society.

This study argued that these mechanisms are more likely to affect students' progression through and completion of schooling, as parents, students, teachers, and NGOs continue to prioritize access to and participation in schooling because of its physical protection as well as its symbolic protection for children's and the society's future well-being. However, over time, as students' quality of learning declines and their schooling is continually interrupted, absenteeism and drop-outs will increase.

In fact, most of these mechanisms were present in the Gulu case. Proximity of schools to the camps and a culture which prioritized education led to high intake and enrollment. However, violent attacks and the threat of attacks against students affected progression through schooling, as it led to constant interruptions to schooling. One student described how this made school no longer "profitable" for her because of the threat of attacks and fear and uncertainty associated with attending school (Interview with the author, 20 April 2013, Gulu, Uganda). At times, students associated the school with traumatic experiences and were unable to concentrate there, while teachers struggled to deliver quality learning to students who they described as not having the ability to learn or not being in "their right mind" (Interview with the author, 10 April 2013, Gulu, Uganda). The wide-scale displacement of the population led to a unique situation in which schools were overcrowded and resources and infrastructure constrained, and parents were unable to maintain their former means of living to support their children's basic needs, much less school fees. Conditions in the displaced camps also fed into an

environment which normalized early marriages and pregnancies, leading to drop-outs of female students.

It is clear that students and teachers were active participants in shaping teaching and learning in an environment dominated by insecurity due to attacks and threats of attacks, destruction of social and economic infrastructure, and the reflection of violence in schools, through the use of corporal punishment, sexual harassment and assault of students, and in some cases, a constant military presence. For students who had been abducted and were able to return to school, challenges extended to recovering their lost years of education and reintegrating among their peers. Despite these challenges, however, relationships among students and teachers generally remained positive and supported a more "normal" learning environment for students, as students and teachers saw school as a way to maintain these relationships.

Further, students continued to place high value on their school attendance and learning, despite living in incredibly difficult circumstances. This is clear through their discussions of the strategies they used to stay in school, pass their exams, and get high marks, by reading at midnight, seeking out their teachers for extra help, and doing manual labor over the holiday to earn money to pay for school fees. Likewise, most of the teachers interviewed incorporated into their teaching not only the academic components they were required to teach but also advising and "guiding and counseling" for students in relation to their personal security and individual problems they faced.

Students' value of their learning and strategies employed by teachers and students to support this learning emphasizes the need to actively engage students in education programming in conflict settings. Students and teachers should be encouraged to share

112

their coping strategies and develop supportive networks which extend beyond the several

teachers' relationships with specific children and parents and a handful of students'

relationships with role models or mentors. This sharing of tacit knowledge and

strengthening of existing support systems will magnify students' and teachers' resilience

to continue with teaching and learning during periods of conflict.

Yet, overall, as schools may both endanger and protect children, it is relevant to

ask whether the continuation of schooling should be supported during conflict. Is it

responsible to promote school attendance when schools, teachers, and students might be

targets of attack or sites for child soldiering? Further, when the quality of learning

becomes so diminished, is the risk of sending children to school still worthwhile? Alone,

the positive of "in-school relationships" does not seem to warrant these negatives,

especially when these relationships might be present elsewhere in the community;

however, under certain conditions, schools can support children's well-being through

teaching and learning which helps students to navigate wartime challenges students face.

Teachers also play a critical mentoring role for children; from interviews in Uganda, it

appears that especially for children who were formerly abducted, their relationships with

their teachers were their most supportive relationships. Through their proximity to and

close relationships with students, teachers were able to identify and help address the

myriad challenges students faced in addition to supporting their learning. However, to

expect teachers to carry out all of these responsibilities during wartime implies a need to

provide them with adequate psychosocial and financial support. In fact, in Gulu District,

interviewees described highly trained teachers leaving the District because of the

insecurity.

Overall, the need for psychosocial and physical protection for schools, students, and teachers remains paramount; this issue is garnering more attention as threats against schools, students, and teachers persist where combatants indiscriminately target civilians, as has been the case in Syria, Nigeria, and Mali. Recognizing that wartime threats to education lead not only to physical endangerment and school drop-outs but may also impair children's education and employment opportunities for years to come, Leila Zerrougui, Special Representative of the Secretary-General for Children and Armed Conflict frames this critical importance: "We have seen it, we know what it is, and now we have to stop it, to tell the world who is responsible for these acts and to work together to use the tools we have to prevent and stop these horrible acts which can scar children for a lifetime" ("Act to Protect").

REFERENCES

"Act to Protect: Guidance Note on Attacks Against Schools and Hospitals." *Office of the Special Representative for the Secretary-General on Children and Armed Conflict*. 20 May 2014. Web. 1 June 2014.

Adely, Fida. (2004). "The Mixed Effects of Schooling for High School Girls in Jordan: The Case of Tel Yahya." *Comparative Education Review*. 48: 4, 353-373.

Akbulut-Yuksel, Mevlude. (2009). *Children of war: The long-run effects of large-scale physical destruction and warfare on children*. No. 4407. IZA Discussion Papers.

Akello, Grace, Annemiek Richters, and Ria Reis. "Reintegration of former child soldiers in Northern Uganda: coming to terms with children's agency and accountability." *Intervention*, 4.3 (2006): 229-243.

Akresh, Richard and Damien de Walque. (2008.) *Armed conflict and Schooling: Evidence from the 1994 Rwandan Genocide*. Policy Research Working Paper 4606. Washington: World Bank.

Alderman, H., Hoddinott, J. and Kinsey, B. "Long Term Consequences of Early Childhood Malnutrition." Oxford Economic Papers. 58.3 (2006): 450-474.

Allen, Tim. (2005) *War and Justice in Northern Uganda: An Assessment of the International Criminal Court's Intervention*. An independent report. London, UK: London School of Economics.

Annan, Jeannie, Moriah Brier, and Filder Aryemo. "From 'Rebel' to 'Returnee': Daily Life and Reintegration for Young Soldiers in Northern Uganda." *Journal of Adolescent Research*, 24.6 (2009): 639-667.

Annan, Jeannie, Christopher Blattmann, and Rogert Horton. (2006.) *The State of Youth and Youth Protection in Northern Uganda: Findings from the Survey for War Affected Youth.* Kampala, Uganda: UNICEF Uganda.

"Back to School at UNRWA: Over 50% of Agency Schools in Syria Closed Due to Conflict." UNRWA. 1 September 2013. Web. 14 May 2014.

Barnard, Anne, and Hwaida Saad. "Children's Art at Syria School, and Then a Bomb." *The New York Times*. The New York Times, 30 Apr. 2014. Web. 14 May 2014.

Barro, Robert J., and Jong Wha Lee. "A new data set of educational attainment in the world, 1950–2010." *Journal of Development Economics.* 104 (2013): 184-198.

Bayer, Resat, and Matthew C. Rupert. "Effects of civil wars on international trade, 1950-92." *Journal of Peace Research* 41.6 (2004): 699-713.

Bethke, Lynne, and S. Braunschweig. "Global survey on education in emergencies." (2004). Women's Commission for Refugee Women and Children.

Bird, Kate, Kate Higgins, and Andy McKay. (2011). *Education and resilience in conflict- and insecurity-affected Northern Uganda*. Working Paper. Chronic Poverty Research Centre: London, UK.

Blattman, Christopher, and Edward Miguel. "Civil war." *Journal of Economic Literature,* (2010): 3-57.

Bloom, David. (2006). *Measuring Global Educational Progress*. American Academy of Arts and Sciences, Cambridge, MA.

Branch, Adam. (2008). *Gulu Town in War—and Peace?: Displacement, Humanitarianism and Post-war Crisis*. Crisis States Research Centre.

Bruns, Barbara, Alain Mingat, and Ramahatra Rakotomalala. (2006). *Achieving Universal Primary Education by 2015. A Chance for Every Child*. The World Bank: DC.

Cameron, Laurie. (2004.) *Indicator Handbook for Primary Education: Abridged*. Washington, DC: Education Quality Improvement Program.

Chen, Siyan, Norman V. Loayza, and Marta Reynal-Querol. "The Aftermath of Civil War," *The World Bank Economic Review*, 22.1 (2008)" 63-85.

Cole, Elizabeth A., and Judy Barsalou. (2006). *Unite or Divide? The Challenges of Teaching History in Societies Emerging from Violent Conflict*. Rep. no. 163. Washington DC: United States Institute of Peace.

Collier, Paul; Lani Elliott, Håvard Hegre, Anke Hoeffler, Marta Reynal-Querol & Nicholas Sambanis. (2003). *Breaking the Conflict Trap: Civil War and Development Policy*. Washington, DC: International Bank for Reconstruction and Development/World Bank.

Collier, Paul. "On the economic consequences of civil war." *Oxford economic papers* 51.1 (1999): 168-183.

COWI. 1999. *Northern Uganda Reconstruction Programme (NURP II) District Profile Study Volume II, part 1, Acholi Region*. Kampala, Office of the Prime Minister.

Davies, Lynn. *Education and Conflict: Complexity and Chaos*. London:RoutledgeFalmer, 2004.

Dingemanse, Mark. *Ugandan Districts Affected by Lord's Resistance Army* [map]. 6 April 2012. 596 × 735. "Wikimedia Commons." <http://commons.wikimedia.org/wiki/> 20 July 2014.

De Berry, J. (2003). *The Children of Kabul: Discussion with Afghan Families*. London: Save the Children.

Dickson, Janet R., Barry Hughes, and Mohammod T. Irfan. (2010). *Advancing Global Education: Patterns of Human Progress, Vol. 2.* Oxford, UK: Oxford University Press.

Dolan, Chris, and Lucy Hovil. (2006). *Humanitarian protection in Uganda: A Trojan horse?* Overseas Development Institute (ODI).

Dolan, Christopher. (2005). *Understanding War and its Continuation: The case of Northern Uganda*. PhD diss. London, UK: London School of Economics.

Doom, Ruddy and Koen Vlassenroot. "A New Koine? The Lord's Resistance Army in Northern Uganda." *African Affairs*, 98.30 (1999): 5-36.

Eck, Kristine, and Lisa Hultman. "One-Sided Violence Against Civilians in War Insights from New Fatality Data." *Journal of Peace Research* 44.2 (2007): 233-246.

Eck, Kristine; Margareta Sollenberg & Peter Wallensteen. (2004.) "One-Sided Violence and Non-State Conflict," in Lotta Harbom, ed., States in Armed Conflict, 2003. Uppsala: Universitetstryckeriet (133–142).

"The Education for All Development Index." *Education for All Global Monitoring Report 2012*. 15 October 2012. Web. 15 November 2012.

EPDC. (2010). "How do Violent Conflicts Affect School Enrollment? Analysis of Sub-National Evidence from 19 Countries." Background Paper prepared for Education for All Global Monitoring Report 2011—The Hidden Crisis: Armed Conflict and Education. Geneva: UNESCO, 2010.

ERD. 2009. Overcoming Fragility in Africa: Forging a New European Approach, European Report on Development.

Fosu, A.K., and P. Collier, eds. 2005. *Post-Conflict Economies in Africa*. New York: Palgrave Macmillan.

Freeman, Sarah W., Dinka Corkalo, Naomi Levy, Dina Abazovic, Bronwyn Leebaw,

Dean Adjukovic, Dino Djipa, and Harvey M. Weinstein. (2004). "Public Education and Social Reconstruction in Bosnia and Herzegovina and Croatia." *My Neighbor, My Enemy: Justice and Community in the Aftermath of Mass Atrocity*. Eds. Eric Stover and Harvey M. Weinstein. Cambridge, UK: Cambridge University Press, 226-47.

Gates, Scott and Håvard Hegre, Håvard Mokleiv Nygård, and Håvard Strand. 2010. "Consequences of Civil Conflict," World Development Report 2011 Input Paper, World Bank.

Gerring, John. "The Case Study: What It Is and What It Does." *Oxford Handbook of Comparative Politics*. Eds. Carles Boix and Susan C. Stokes. Oxford: OUP, 2009. 90-112. Oxford Handbooks Online.

Gersony, Robert. (1997). *The Anguish of Northern Uganda: The Results of a Field-Based Assessment of the Civil Conflicts in Northern Uganda*. Kampala: USAID.

Ghobarah, Hazem Adam, Paul Huth, and Bruce Russett. "Civil wars kill and maim people—long after the shooting stops." *American Political Science Review* 97.02 (2003): 189-202.

Gleditsch et al. (2002). *UCDP/PRIO Armed Conflict Dataset*. Version 4-2012. Themnér and Wallensteen. (2012). Oslo, Norway: Uppsala Conflict Data Program, Center for the Study of Civil Wars, International Peace Research Institute.

Global Coalition to Protect Education from Attack. (2012). *Lessons in War: Military Use In Schools and Other Education Institutions During Conflict.*

Honaker, James, Anne Joseph, Gary King, Kenneth Scheve, and Naunihal Singh. (2003). "Amelia: A program for Missing Data," Harvard University.

Hovil, Lucy and Zachary Lomo. (2004). *Behind the Violence: Causes, Consequences, and the Search for Solutions to the War in Northern Uganda*. Refugee Law Project Working Paper no. 11. Kampala, Uganda: Makerere University.

Hultman, Lisa. "Battle losses and rebel violence: Raising the costs for fighting." *Terrorism and Political Violence* 19.2 (2007): 205-222.

Human Security Report Project. (2012). *Human Security Report 2012: Sexual Violence, Education, and War: Beyond the Mainstream Narrative*. Vancouver: Human Security Press.

Humphreys, Macartan, and Jeremy M. Weinstein. "Handling and manhandling civilians in civil war." *American Political Science Review* 100.03 (2006): 429-447.

Internal Displacement Monitoring Centre (IDMC). *Unprepared for Peace: Education in Uganda in displacement and beyond*. Geneva, Switzerland: IDMC, 2011.

Jacoby, Hanan G., and Emmanuel Skoufias. "Risk, financial markets, and human capital in a developing country." *The Review of Economic Studies* 64.3 (1997): 311-335.

Justino, P. and Verwimp, P. (2006). "Poverty dynamics, violent conflict and convergence in Rwanda." Households in Conflict Network Working Paper, 16.

Justino, Patricia. (2011). "How does violent conflict impact on individual educational outcomes? The evidence so far." *Background paper for the Education For All Global Monitoring Report*.

Kalyvas, Stathis N., and Laia Balcells. "International system and technologies of rebellion: How the end of the Cold War shaped internal conflict." *American Political Science Review* 104.03 (2010): 415-429.

Kang, Seonjou, and James Meernik. "Civil war destruction and the prospects for economic growth." *Journal of Politics* 67.1 (2005): 88-109.

King, Gary, et al. "Analyzing incomplete political science data: An alternative algorithm for multiple imputation." (2001). *American Political Science Association*. Vol. 95.1 Cambridge University Press.

Lai, Bryan and Clayton Thyne. "The Effect of Civil War on Education, 1980-1987." Journal of Peace Research 44 (2007): 277-292.

Leach, F., and C. Mitchell, eds. (2006). *Combating Gender Violence in and around Schools.* London: Trentham.

Machel, Graça. (1996). *Impact of armed conflict on children*. United Nations.

Marshall, Monty G., Keith Jaggers, Ted Robert. (2010). *Polity IV Project: Political Regime Characteristics and Transitions, 1800-2010. Dataset Users' Manual*. Polity IV dataset version 2010. Center for Systemic Peace.

Miguel, Edward, and Gerard Roland. "The long-run impact of bombing Vietnam." *Journal of Development Economics* 96.1 (2011): 1-15.

Mosselson, Jaqueline, Wendy Wheaton, and Paul St. John Frisoli. (2009). "Education and Fragility: A Synthesis of the Literature." *Journal of Education for International Development* 4.1: 1-17.

Mosselson, Jaqueline. "Masks of achievement: An experiential study of Bosnian female refugees in New York City schools." *Comparative Education Review*, 51. 1 (2007): 95-115.

Nicolai, Susan and Carl Triplehorn. (2003). *The role of education in protecting children in conflict*. London, UK: Humanitarian Practice Network.

Obura, Anna. (2003). *Never Again: Educational Reconstruction in Rwanda*, Paris: International Institute for Educational Planning/UNESCO.

OECD. (2009). *Conflict and Fragility: Armed Violence Reduction – Enabling Development*. OECD Development Co-operation Directorate - Policy Analysis, Paris.

O'Malley, Brendan. (2010). *Education under attack–2010*. Paris: UNESCO.

Perera, Lal, Swarna Wijetunge, and A. S. Balasooriya. (2004). "Education Reform and Political Violence in Sri Lanka." *Education, Conflict and Social Cohesion*. By Sobhi Tawil, Alexandra Harley, and Cecilia Braslavsky. Geneva: UNESCO, International Bureau of Education, 315-374

Pham, Phuong and Patrick Vinck. (2010). *Transitions to Peace: A Population-Based Survey on Attitudes About Social Reconstruction and Justice in Northern Uganda*. University of Berkeley: Human Rights Center.

Poirier, Charles. "The effects of armed conflict on schooling in sub-Saharan Africa." International Journal of Educational Development. 32 (2012): 341-251.

Rodríguez, Catherine and Fabio Sánchez. "Armed Conflict Exposure, Human Capital Investments, And Child Labor: Evidence From Colombia." *Defence and Peace Economics*, 23.2 (2012): 161-184.

Shalita, Nicholas. (1994). "The Sudan Conflict (1983–)," in Ed., Michael Cranna, *The True Cost of Conflict*. London: Earthscan, 135–154.

Shriberg, Janet. "Fractured Help: Social Justice and Teacher Well-being in Postwar Liberia." Diss. Columbia U, 2008.

Sommers, Marc. "Education Amidst Conflict: The Youth Challenge." *PRAXIS The Fletcher Journal of Human Security* 32 (2009).

Sundberg, Ralph. *UCDP Battle-Related Deaths Dataset Codebook: Definitions, sources, and methods for the UCDP battle-related deaths estimates.* Version 5-2012. Oslo, Norway: Uppsala Conflict Data Program, Center for the Study of Civil Wars,

International Peace Research Institute. Available at
<http://www.pcr.uu.se/digitalAssets/>

Stasavage, David. "Democracy and Education Spending in Africa." *American Journal of Political Science* 49.2 (2005): 343-58.

Talbot, Christopher. "Recent Research and Current Research Gaps." *Forced Migration Review* 22 (2005).

Themnér, Lotta, and Peter Wallensteen. "Armed Conflicts, 1946–2012." *Journal of Peace Research* (2013).

Thomas, Duncan, et al. "Education in a Crisis." *Journal of Development economics* 74.1 (2004): 53-85.

Thyne, Clayton L. "ABC's, 123's, and the Golden Rule: The Pacifying Effect of Education on Civil War, 1980–1999." *International Studies Quarterly* 50.4 (2006): 733-754.

"Uganda Districts." <http://www.statoids.com/uug.html>. Web. 15 June 2014.

UN General Assembly, 67th Session. 2013. *Secretary-General's Annual Report on Children and Armed Conflict: Success but Also Grave Danger for Children Affected by New and Ongoing Conflicts* (A/67/845). Web. 15 May 2013.

UNESCO. (2010). *Protecting Education from Attack*. Paris: UNESCO

UNESCO Institute for Statistics. (2009). *Education Indicators: Technical Guidelines.* Montreal: UNESCO Institute for Statistics.

UNESCO Institute for Statistics (UIS). (2010). "The Quantitative Impact of Conflict on Education." Background Paper prepared for Education for All Global Monitoring Report 2011—The Hidden Crisis: Armed Conflict and Education. Montreal: UNESCO Institute for Statistics, 2010.

"UNHCR closes chapter on Uganda's internally displaced people." UNHCR. 6 January 2012. Web. 15 July 2014.

UNICEF. "Syria Conflict Depriving Children of Their Education." UNICEF. March 2013. Web. 15 February 2014.

"US 'outrage' at Nigeria Abductions." *BBC News*. BBC News, 6 May 2014. Web. 14 May 2014.

Van Acker, Frank. "Uganda and the Lord's Resistance Army: The New Order no One Ordered." *African Affairs*, 103.412 (2004): 335-337.

Veale, Angela and Aki Stavrou. *Reception, Reintegration, and Reconciliation*. Pretoria, South Africa: Institute for Security Studies, 2003.

Watkins, K. 2001. *The Oxfam Education Report*. Oxford: Oxfam Publishing.

Winthrop, Rebecca, and Jackie Kirk. "Learning for a bright future: Schooling, armed conflict, and children's well   being." *Comparative Education Review* 52.4
(2008):   639-661.

Women's Commission for Refugee Women and Children (WCRWC). 2005. *Learning in a War Zone: Education in Northern Uganda.* New York: WCRWC.

Women's Commission for Refugee Women and Children (WCRWC). *(2005). Resilience in the Darkness: An Update on Child and Adolescent Night Commuter in Northern Uganda.* New York: WCRWC.

World Bank. 2003. *Breaking the Conflict Trap: Civil War and Development Policy*. New York: Oxford University Press.

"World Development Indicators." The World Bank. Web. 1 November 2012.

Zakharia, Zeena. (2009). "How Schools Cope with War: A Case Study of Lebanon," in Ed., Dana Burde, *Education in Emergencies and Post-Conflict Situations: Problems, Responses, and Possibilities.* New York: Society for International Education, 107-118.

Appendix A. Background on Education Data

Several major education datasets exist in addition to the UNESCO data. Burns, Mingat, and Rakotmalala have created a dataset of primary completion rates. They complement UNESCO's data with enrollment data collected directly from Education Ministries. Barro and Lee (2010) construct a dataset including indicators of attainment at age levels of over age 15 and over age 25, by sex. They also include average years of schooling for primary, secondary, and tertiary levels at five-year intervals from 1960 to 2000. They construct their data using UNESCO data and other census data, using an estimation method to generate many of their observations. Finally, Cohen and Soto construct a dataset of attainment, by five-year age groups, for each of the years 1960, 1970, 1980, 1990, and 2000, and completion rates. They use data from national sources, OECD and UNESCO, filling in missing observations using backward or forward extrapolation.

Criticism of both the Barro-Lee and Cohen-Soto data is taken up in *Measuring Global Education Progress*; the authors focus primarily on Cohen and Soto's and Barro and Lee's lack of accounting for immigration, emigration, and the impact of epidemics on population growth. Cohen and Soto use only enrollment (not census) data to construct their figures for most Sub-Saharan African countries. Krueger and Lindahl criticize Barro and Lee's reliance on UNESCO data, because of measurement problems such as the difference between beginning of the year registration and attendance throughout the year. Further comparison of the Barro-Lee and Cohen-Soto datasets reveals "significant inconsistencies within these indicators, including what are inferred to be negative enrollment rates for certain country-age group combinations, as well as some implausible decade changes."

While process variables, such as curricular content and pedagogy, might open up the black box of the classroom, they are difficult to concisely quantify and indicators are limited. More common and more widely available indicators for process variables are student-teacher ratio and book-student ratios; although potentially useful, data on these indicators is scarce. In 2011, UNESCO's Institute for Statistics launched an initiative, in partnership with the Pan African Institute of Education for Development and the Association for the Development of Education in Africa to collect data on "school conditions and resources." The survey was administered in 45 Sub-Saharan African countries, and 36 countries completed the survey. Data on a wide-range of process measures was collected, such as the pupil-textbook ratio, the average class size, and the ratio of graduates from pre-service teacher training programs to teachers in service, and teacher attrition rates. This data, while certainly valuable, is mostly limited to 2010 - 2012, constraining any time-series analysis. Further, most data is missing for at least five of the thirty-six countries which responded to the surveys (only data on a handful of indicators exists) and the years for which the data is reported differs across the 36 countries, complicating any cross-country analysis.

Outputs, although the obvious, go-to indicators for an assessment of educational quality, such as literacy rates and standardized test score assessments, are similarly scarce. UNESCO data on literacy in Sub-Saharan Africa exists, but most countries exhibit data for only two to four years from 1998 to 2011. The handful of years for

which data exists for each country differs across country, making a cross-country comparison difficult. Another set of output measures might be found in comparable international learning assessments. In fact, two major regional assessments have been conducted in Africa—the Southern and Eastern African Consortium for Monitoring Educational Quality[26] and the Programme d'Analyse des Systèmes Educatifs[27] (PASEC, or "Programme of Analysis of Education Systems") of the Conference of Ministers of Education of French-Speaking Countries (CONFEMEN). Although incredibly useful for a study appraising educational quality in these countries, this data is less useful for the purpose of analyzing the impact of conflict on education, as only two of the participating SACMEQ countries, Mozambique and Uganda, have experienced conflict. Similarly in the case of the PASEC countries, the countries which have experienced conflict (for example, Congo and Chad) did not experience conflict in the years for which data is available, highlighting the difficulty of collecting data in conflict areas. For the years and countries for which data is available, only Senegal experienced conflict.

---

[26] Supported by UNESCO's International Institute for Educational Planning, SACMEQ grew out of an investigation into the education system in Zimbabwe and currently monitors education quality in 15 countries: Botswana, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, United Republic of Tanzania, United Republic of Tanzania (Zanzibar), Uganda, Zambia and Zimbabwe. SACMEQ has collected several batches of data; these include: 1) Data from 1995 to 1999 on five countries, assessing reading performance at grade 6; 2) Data from 2000 to 2002 on fourteen countries, assessing reading and math performance of grade 6 pupils; 3) and Data from 2007 assessing "(a) the general conditions of schooling, (b) the reading and mathematics achievement levels of Grade 6 pupils and their teachers, and (c) the knowledge that pupils and their teachers have about HIV and AIDS." The data is available at http://www.sacmeq.org.

[27] PASEC has surveyed 2,000 to 2,500 students and their teachers in approximately 100 schools in eleven francophone African countries over different periods of time. Data available on countries and years surveyed include: Senegal (1995-2000; 2006-2007), Burkina Faso (1995-1998; 2006-2007), Cameroon (1995-1996; 2004-2005), Côte d'Ivoire (1995-1998), Madagascar (1997-1998; 2005-2006), Guinea (1997-1998; 2003-2004), Togo (2000-2001), Mali (2001-2002), Niger (2001-2002), Chad (2003-2004), Mauritania (2003-2004), Benin (2004-2005), Mauritius (2006), Congo (2006-2007). The surveys assess performance in grade 2 and grade 5 in French and math at the beginning and end of each year. The data is derived from national reports and is available at http://www.confemen.org/.

Appendix B. Summary of Conflict Data by Country

Country	Experienced civil conflict during any year between 1998-2010	Any year post-civil conflict between 1998-2010	Number of civil conflict years between 1998-2010
Angola	Yes	Yes	8
Benin	No	No	0
Botswana	No	No	0
Burkina Faso	No	Yes	0
Burundi	Yes	Yes	10
Cameroon	No	Yes	0
Cape Verde	No	No	0
Central African Republic	Yes	Yes	5
Chad	Yes	Yes	11
Comoros	No	Yes	0
Congo	Yes	Yes	3
Djibouti	Yes	Yes	1
DR Congo	Yes	Yes	7
Eritrea	Yes	Yes	2
Equitorial Guinea	No	No	0
Ethiopia	Yes	No	12
Gabon	No	Yes	0
Gambia	No	Yes	0
Ghana	No	Yes	0
Guinea	Yes	Yes	2
Guinea-Bissau	Yes	Yes	2
Ivory Coast	Yes	Yes	3
Kenya	No	Yes	0
Lesotho	Yes	Yes	1
Liberia	Yes	Yes	4
Madagascar	No	Yes	0
Malawi	No	No	0
Mali	Yes	Yes	3
Mauritania	Yes	Yes	1
Mauritius	No	No	0
Mozambique	No	Yes	0
Namibia	No	No	0
Niger	Yes	Yes	11
Nigeria	Yes	Yes	2
Rwanda	Yes	Yes	5
Sao Tome and Principe	No	No	0
Senegal	Yes	Yes	4
Seychelles	No	No	4
Sierra Leone	Yes	Yes	0
South Africa	No	Yes	3
Swaziland	No	No	0
Sudan	Yes	No	0
Togo	No	No	13
Tanzania	No	No	0
Uganda	Yes	No	10

Appendix C. Models 1-3 with relaxed post-conflict variable

126

	Survival rate	Survival rate (MI)	Net intake rate	Net intake rate (MI)	NIR gender parity	NIR gender parity (MI)	Graduation rate	Graduation rate (MI)	Gross intake rate	Gross intake rate (MI)
Conflict yes/no	1.006 (2.101)	-2.731 (1.707)	-1.202 (1.979)	-2.575 (2.036)	-.010 (.008)	-.00923 (.010)	-.440 (3.023)	-10.518*** (2.595)	-1.464 (1.091)	-6.038*** (1.586)
Post-conflict relaxed	.643 (1.768)	-3.520** (1.405)	-1.391 (1.584)	-2.447* (1.423)	-.012* (.006)	-.022*** (.007)	-.220 (1.960)	-8.535*** (1.983)	-2.196** (.015)	-4.347*** (1.302)
Lag (y at n-1)	.773*** (.050)	.564*** (.042)	.853*** (.037)	.655*** (.034)	.908 (.026)	.714*** (.037)	.974*** (.045)	.594*** (.033)	.869*** (.023)	.646*** (.031)
GDP/capita in USD 2005	.0006 (.0005)	.0008*** (.0002)	.0004 (.0005)	.0002 (.0002)	.000001 (.000002)	.000001 (.000001)	.001 (.001)	.0003 (.0003)	.001*** (.0002)	.001*** (.0002)
Polity score	-.080 (.147)	.393 (.214)	.246 (.152)	.280** (.131)	.0005 (.0006)	.001** (.001)	-.004 (.181)	.684*** (.050)	-.036 (.074)	.500*** (.114)
% of pop. rural	-.124* (.069)	-.117*** (.035)	.011 (.056)	.071 (.052)	.00006 (.0002)	.00003 (.0002)	-.102 (.064)	-.112** (.050)	-.080*** (.031)	-.141*** (.039)
Constant	22.236*** (6.334)	35.117*** (3.874)	4.705 (4.412)	11.467*** (3.538)	.084** (.030)	.273*** (.035)	6.183 (5.143)	30.382*** (3.933)	11.793*** (3.052)	30.110*** (3.79)
	N = 185 R^2 = .6984 adj R^2 = .6882 F-statistic = 68.33	N = 597 R^2 = .52498 adj R^2 = .52014 F-statistic = 109.242	N = 167 R^2 = .8154 adj R^2 = .8085 F-statistic = 117.78	N = 597 R^2 = .48408 adj R^2 = .47882 F-statistic = 92.65	N = 168 R^2 = .9010 adj R^2 = .8973 F-statistic = 244.23	N = 597 R^2 = .57692 adj R^2 = .5726 F-statistic = 134.785	N = 65 R^2 = .9463 adj R^2 = .9408 F-statistic = 170.46	N = 597 R^2 = .64744 adj R^2 = .64388 F-statistic = 181.958	N = 300 R^2 = .9276 adj R^2 = .9261 F-statistic = 625.43	N = 597 R^2 = .728 adj R^2 = .62522 F-statistic = 263.706

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

	Survival rate	Survival rate (MI)	Net intake rate	Net intake rate (MI)	NIR gender parity	NIR gender parity (MI)	Graduation rate	Graduation rate (MI)	Gross intake rate	Gross intake rate (MI)
Conflict intensity	1.053 (1.830)	-2.053 (1.313)	-.784 (1.783)	-2.252 (1.547)	-.005 (.007)	.005 (.007)	-1.343 (2.500)	-7.123*** (2.088)	-.887 (.842)	-4.725*** (1.179)
Post-conflict relaxed	.692 (1.753)	-3.446** (1.354)	-1.269 (1.567)	-2.491* (1.433)	-.011* (.006)	-.017** (.007)	-.467 (1.935)	7.801*** (1.941)	-2.038** (.883)	-4.199*** (1.279)
Lag (y at n-1)	.774*** (.050)	.564*** (.042)	.854*** (.037)	.656*** (.034)	.911*** (.030)	.722*** (.036)	.967*** (.044)	.610*** (.033)	.872*** (.023)	.652*** (.031)
GDP/capita in USD 2005	.0006 (.0005)	.385*** (.120)	.0004 (.0005)	.0002 (.0003)	.000001 (.000002)	.000001 (.000001)	.001 (.001)	.0004 (.0003)	.001*** (.0002)	.001*** (.0002)
Polity score	-.079 (.147)	.393 (.214)	.243 (.152)	.267** (.132)	.0005 (.0006)	.002** (.001)	-.0001 (.178)	.646*** (.135)	-.039 (.074)	.474*** (.114)
% of pop. rural	-.127* (.069)	-.118*** (.035)	.009 (.056)	.072 (.051)	.00004 (.0002)	-.00003 (.0002)	-.095 (.065)	-.117** (.048)	-.080*** (.031)	-.141*** (.039)
Constant	22.289*** (6.328)	35.115*** (3.883)	4.703 (4.263)	11.537*** (3.486)	.083*** (.030)	.264*** (.034)	6.289 (5.106)	29.356*** (3.992)	11.501*** (3.037)	29.701*** (3.804)
	N = 185 R^2 = .6986 adj R^2 = .6884 F-statistic = 68.38	N = 597 R^2 = .52508 adj R^2 = .52026 F-statistic = 109.29	N = 597 R^2 = .8152 adj R^2 = 8083 F-statistic = 117.62	N = 597 R^2 = .4849 adj R^2 = .47964 F-statistic = 92.98	N = 168 R^2 = .9004 adj R^2 = .8967 F-statistic = 242.69	N = 597 R^2 = .57658 adj R^2 = .57248 F-statistic = 134.646	N = 65 R^2 = .9454 adj R^2 = .9297 F-statistic = 167.32	N = 597 R^2 = .64482 adj R^2 = .64126 F-statistic = 179.896	N = 300 R^2 = .9274 adj R^2 = .9259 F-statistic = 623.85	N = 597 R^2 = .72904 adj R^2 = .72628 F-statistic = 265.126

$* \, p < 0.10, \; ** \, p < 0.05, \; *** \, p < 0.01$

127

	Survival rate	Survival rate (MI)	Net intake rate	Net intake rate (MI)	NIR gender parity	NIR gender parity (MI)	Graduation rate	Graduation rate (MI)	Gross intake rate	Gross intake rate (MI)
Battle-related deaths	.0003 (.003)	-.002 (.002)	-.0003 (.003)	-.001 (.002)	-.00001 (.00001)	.00002*** (.00001)	.007 (.007)	-.003 (.002)	-.0001 (.001)	-.003** (.001)
Post-conflict relaxed	.327 (1.646)	-3.062** (1.385)	-1.049 (1.484)	-1.202 (2.227)	-.010* (.006)	-.016** (.007)	.303 (1.849)	-5.45*** (1.850)	-1.666** (.829)	-2.836** (1.219)
Lag (y at n-1)	.768*** (.049)	.566*** (.042)	.855*** (.037)	.662*** (.035)	.913*** (.026)	.713*** (.035)	.989 (.041)	.650*** (.035)	.879*** (.022)	.672*** (.031)
GDP/capita in USD 2005	.0006 (.0005)	.001*** (.0003)	.0004 (.0005)	.0003 (.0003)	.000001 (.000002)	.000002 (.000001)	.001 (.001)	.0005* (.00027)	.001*** (.0002)	.001*** (.0002)
Polity score	-.079 (.147)	.380*** (.121)	.244 (.154)	.276** (.131)	.0005 (.0006)	.002*** (.001)	-.024 (.177)	.652*** (.145)	-.036 (.074)	.480*** (.112)
% of pop. rural	-.118* (.068)	-.121*** (.036)	.003 (.055)	.063 (.048)	.00002 (.0002)	-.0001 (.0002)	-.123* (.065)	-.132*** (.047)	-.082*** (.031)	-.148*** (.039)
Constant	22.397*** (6.336)	34.804*** (3.843)	4.847 (4.439)	11.120*** (3.557)	.081*** (.030)	.272*** (.033)	6.434 (5.064)	25.999*** (4.170)	10.871*** (2.987)	27.711*** (3.769)
	N = 184 R²= .6981 adj R²= .6878 F-statistic = 68.20	N = 597 R²= .525 adj R²= .52084 F-statistic = 109.622	N = 167 R²= .8150 adj R²= .8080 F-statistic = 117.46	N = 597 R²= .4834 adj R²= .47814 F-statistic = 92.43	N = 168 R²= .9005 adj R²= .8968 F-statistic = 242.87	N = 597 R²= .5831 adj R²= .57886 F-statistic = 138.244	N = 65 R²= .9462 adj R²= .9407 F-statistic = 170.06	N = 597 R²= .63164 adj R²= .62788 F-statistic = 169.82	N = 300 R²= .9271 adj R²= .9256 F-statistic = 621.32	N = 597 R²= .72376 adj R²= .72094 F-statistic = 258.216

$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

128

Appendix D. Interview guide for teacher interviews

Name and age
School(s) where employed – school locations (in IDP camp?); private/public; for how many years at each school

Learning environment: Stability/structure/continuity
　　　Could you tell me about a regular/normal day at school during the insurgency? What was the day like?
　　　Could you describe the necessary day-to-day school functions (such as monitoring student learning, monitoring teachers, paying teacher salaries, cleaning the school grounds)? What were some of your day-to-day duties?
　　　　　Were there any constraints to these day-to-day school functions during the insurgency?
　　　How often could you predict what the school day would be like?
　　　Was there a school-determined learning plan?

Well-being
　　　Did you like/enjoy teaching?
　　　What did you like about it? What did you not like about it?
　　　What were some of your successes as a teacher? What were some of your challenges?
　　　How often did you feel motivated to show up to teach at school?
　　　　　What motivated you to show up to teach at school?

Teacher attendance
　　　How often did you go to school to teach during the insurgency?
　　　　　What made you decide to go to school or not go to school?
　　　　　Were there any constraints which prevented your attendance?

Learning environment: Academic standards & teacher performance
　　　How much of the school day did you spend teaching?
　　　　　What were the most common reasons for not teaching?
　　　Did you experience interruptions to teaching?
　　　　　How frequent were these interruptions?
　　　　　What were the most common reasons for these interruptions?

Learning environment: Safety/security
　　　How safe did you feel at school, if at all?
　　　　　Did your feelings of safety affect your teaching?

Learning environment: Teaching strategies & student responses
　　　How do you think students learned best?
　　　　　Examples: Did they learn best by watching the teacher demonstrate and memorizing facts or finding solutions to problems on their own? Did you expect students

to know the right answer or did you expect them to know how to find the right answer on their own?

How did you encourage your students to learn?

How often did you modify lessons when students did not understand?

How did you assess your students' learning?

Student learning strategies and well-being:

In your opinion, did students feel motivated to learn?

In your opinion, did students understand the lessons they were taught?

In your opinion, did students feel free to ask teachers questions about lessons they did not understand?

Learning environment: Social norms/behavioral expectations

Describe any classroom rules for students. How were these rules determined?

Relationships with fellow teachers

How did you get along with your fellow teachers/colleagues? Can you describe your relationships with your fellow teachers/colleagues?

Did you feel free to talk with your colleagues about personal things?

Relationships with head teacher/school administration or other support systems

Did you feel that student learning objectives were clearly communicated to you?

Who communicated these learning objectives?

Did you receive any teacher training, support, or materials during the insurgency?

Who provided this training, support, or materials?

Is there any training, support, or material that you did not receive that would have been beneficial for your teaching?

Parents' involvement

How were students' parents involved in their education, if at all?

Community involvement

Did people from the community support the school facilities or activities in any way?

If yes, in what ways did they support the school? Was this support beneficial?

Teacher attitudes towards NGO involvement

Did you see instances of non-governmental organizations supporting the school facilities or activities in any way?

If yes, in what ways did they support the school? Was this support beneficial?

Teacher attitudes towards government involvement

Did you see instances of the government supporting the school facilities or activities in any way?

If yes, in what ways did they support the school? Was this support

beneficial?

Wrap-up

Revisit challenges to schooling discussed in interview and ask about strategies to address these challenges.

Is there anything you would like to add to any of the topics we have discussed?

Appendix E. Interview guide for student interviews

Name and age
School(s) attended – school locations (in IDP camp?); private/public; for how many years at each school

Learning environment: Stability/structure/continuity
        Could you describe a regular/normal school day? What were some of the activities you usually did at school?
        How often could you predict what the school day would be like?

Well-being
        Did you enjoy going to school?
        What did you find important about school? What did you find unimportant or not useful?

School attendance
        How often did you attend school during the insurgency? (approximately how many times per week or per term)
                What made you decide to go to school or not go to school?
                Did your parents or guardians support your decision to attend or not attend school?

Learning environment: Academic standards and teacher performance
        How much of the school day did you spend in the classroom learning?
        Did you experience interruptions in class?
                How frequent were these interruptions? Weekly? Daily? Termly?
                What were the most common reasons for these interruptions?

Learning environment: Safety/security
        How safe did you feel at school, if at all?
                Did your feelings of safety affect your learning?

Student learning strategies
        How often did you feel motivated to learn at the best of your ability?
        What do you consider to be some of your successes as a student?
        Did students in your class learn from each other?
                Could you describe examples of this?

Learning environment: Teacher strategies
        Did you feel that your teachers valued your opinions and thoughts?
        Did you feel that your teachers paid attention to what you said?
        Did you feel that your teachers set high standards for your work?
        Did you feel that your teachers were proud of your work?
        Did you feel free to talk with your teachers about personal things?

Learning environment: Social norms and behavioral expectations

        Did you understand your teachers' expectations for you? What were these expectations?

Relationships with peers

        What was the relationship between you and your classmates?

            Did you enjoy spending time with your classmates?

        Did you feel free to talk with your classmates about personal things?

Wrap-up

        Revisit challenges to schooling discussed in interview and ask about strategies to address these challenges.

        What do you see as some of the benefits of your primary schooling, if any?

        Is there anything you would like to add to any of the topics we've discussed?

Appendix F. Interview guide for parent interviews

Name
School(s) children attended - school locations (in IDP camp?); private/public; for how many years at each school

Child's/children's school performance & well-being
 In your opinion, did your child/children feel motivated to learn?
 In your opinion, did your child/children understand the lessons they were taught?

Value of child's/children's learning
 What, in your opinion, was the most important aspect of your child's/children's education?
 What, in your opinion, was the least important (not as important) aspect of your child's/children's education?

Children's safety/security
 How safe did you think your children would be on their commute to school?
 How safe did you think your children would be at school?

Motivation to send children to school
 How often did you encourage your child/children to attend school?
 What were the most common reasons for not sending your child/children to school?

School involvement (knowledge of and attitudes/behaviors)
 How often were you able to speak with your child's/children's teacher?
 How important was it for you to speak regularly with your child's/children's teacher?
 Was it easy or difficult for you to speak regularly with your child's/children's teacher?
 Did you know of a parent teacher association or other committee to help parents be involved in their children's education?

Wrap-up
 Revisit challenges to schooling discussed in interview and ask about strategies to address these challenges.
 What do you see as the benefits to your child's/children's primary schooling, if any?
 Is there anything you would like to add to any of the topics we've discussed?

Appendix G. Interview guide for key informant interviews

Could you describe your typical job duties? (Were you also in this position during the war?)
Could you describe the general state of primary education during the war?
      How, if at all, did this change over time?
What do you see as the biggest challenges to primary schooling during the war?
What do you see as the biggest successes for primary schooling during the war?
Could you describe the necessary day-to-day school functions (such as monitoring student learning, monitoring teachers, paying teacher salaries, cleaning the school grounds)?
      Who was responsible for these different functions?
Were there any constraints to these day-to-day school functions during the war?
      Could you describe how [the war/these constraints] affected students' abilities to attend school?
      Could you describe how [the war/these constraints] affected students' abilities to learn?
Did students experience interruptions to their learning?
      How frequent were these interruptions?
      What were the reasons for these interruptions?
Could you describe how [the war/these constraints] affected teachers' abilities to attend school?
Could you describe how [the war/these constraints] affected teachers' abilities to teach?
Did teachers receive any training, support, or materials during the war?
      Who provided this?
      Do you think this was effective?
Is there any training, support, or material that they did not receive that would have been beneficial?
How were students' parents involved in their education, if at all?
Did people from the community support the school facilities or activities in any way?
      If yes, in what ways?
      Was this support beneficial?
Did you see instances of NGOs supporting the school facilities or activities in any way?
      If yes, how?
      Was this support beneficial?
Did you see instances of the government supporting the school facilities or activities in any way?
      If yes, how?
      Was this support beneficial?

Wrap-up
      Revisit challenges to schooling discussed in interview and ask about strategies to address these challenges.
      Is there anything you would like to add to any of the topics we've discussed?