



Munich Personal RePEc Archive

Building Peace through Education: Case of India and Pakistan Conflict

Mamoon, Dawood

University of Islamabad

16 November 2017

Online at <https://mpra.ub.uni-muenchen.de/82749/>

MPRA Paper No. 82749, posted 23 Nov 2017 11:11 UTC

Building Peace through Education: Case of India and Pakistan Conflict

by

Dawood Mamoon

Dean and Professor
School of Economics and Management
University of Islamabad

(Harvard Business School Affiliate: 2013-2017)
(George Mason University Affiliate: 2016-2018)
(Member World Economic Survey Expert Group)

Abstract:

The paper utilises unique conflict data set from literature to capture different aspects of India and Pakistan conflict and analyses the role of education in peace building between the two countries. Education not only directly eases hostilities but it also puts a positive effect on growth rates and democratic values in both countries that in return further reduce tensions in dyadic conflict proxies.

Keywords: Education, Conflict Transformation, Peace, South Asia

1. Introduction:

The concept of conflict transformation builds largely on the work of Lederach (1995) and Galtung (1996). According to Miall (2004) conflict transformation is a process of engaging with and transforming the relationships, interests, discourses and, if necessary, the very constitution of society that supports the continuation of violent conflict. It goes beyond conflict management involving notions of containment and acknowledges that conflict resolution may be idealistic or unrealistic in that conflict cannot be eliminated. Conflict transformation places an emphasis on changes to context, structures and relationships that shift conflicts away from the use of violence. Similarly, the concept of peace building became more prominent following the publication of Agenda for Peace in 1992 by Boutros Boutros Gali, former UN Secretary General. The document created UN definitions that distinguished between peace making and peacekeeping, and defined post conflict peace building as an action to identify and support structures which will tend to strengthen and solidify peace in order to avoid a relapse into conflict. The UN Secretary General's (2009) report on peace building identifies a number of recurring priorities in conflict affected situations establishing security, building confidence in a political process, delivering initial peace dividends and expanding core national capacity. These priorities include the provision of basic services such as water and sanitation, health and primary education. However in conflict affected situations education is also about more than service delivery because it is also a means of socialisation and identity development through transmission of knowledge, skills, values and attitudes across generations. Education may therefore be a way of contributing to conflict transformation and peace building.

2. Literature Review

According to Education for all Global Monitoring Report (2011), there are 28 million children out of school in conflict-affected states which is 42% of the total world. Education and the way it is executed can fortify, exacerbate and prolong conflict. 'Education and conflict' can be subsumed within the wider international concern with education in 'emergencies'. Sinclair includes within this term 'conflict or natural disaster, displacement of population (whether to another country or internally) return to the home area and/or populations that did not migrate, acute early phase, prolonged crisis or reconstruction' (Sinclair, 2004, p. 1). Retrospect literature uncovered the adverse interlink between conflict exposure and reducing the number of years children spend in school (Akresh and De Walque, 2008; Chamarbagwala and Moran, 2009; Merrouche, 2006; UNESCO 2010), and restricting grade progression (Akresh and De Walque, 2008; Alderman, Hoddinott and Kinsey, 2006; Justino, Leone and Salardi, 2013; Shemyakina, 2011). Armed conflict has taken lives of 2 million school going children in past decade (2007) and recruitment of children in militias (child soldiers) may also hinder enrolment in primary and secondary education. In conflicted areas donors are reluctant to invest in secondary education which causes drastic decline in secondary and higher education.

Conflicted regions and countries reflect the impediment to education faced by millions of children. Malala's is one exposed example as Justino et al (2011) probed Timor Leste secession conflict which lasted for 25 years resulting plethora amount of loss in human capital. Heterogeneity among conflict and education is being empirically observed by the prior literature. Age, gender, characteristics of the country, aptitude of the student is highly dependent on the sign and magnitude of the effects (see for instance Blattman and Annan, 2010; Chamarbagwala and Morán, 2010; de Groot and Goksel, 2011; Leon, 2012; Justino et al., 2013; Kibris, 2014; Rodriguez and Sanchez, 2012; Shemyakina, 2011; Valente, 2013).

As discussed above high conflict is associated with reduced education. However, Groot and Goksel (2011) examined the demand for education with respect to influence of conflict. They tested their hypothesis that, under relatively general conditions, individuals living in conflicted areas have an incentive to increase their level of education and that this effect depends on the individual's skill level. Their results showed that individuals with a medium education level clearly show an increase in education during the conflict.

Global Monitoring Report (2011), documented the world is jerking toward less violent strategies in term of armed conflict is another paradigm. Education sometime generates conflict for instance, division and discrimination in education spur the level of inequality between the groups or classes. Rapid mounting of education could lead towards political instability. When countries make higher education accessible to young group of cohort, this may create a large group of human capital which is unable to absorb by the market (Urdal, 2006). Education may provoke cultural tyranny such tyranny can be termed as systematic destruction of cultural or ethnic group. A number of studies have underpinned this notion (see for instance Keleher 2006; Smith & Vaux, 2003; Buckland, 2005; Tawil & Harley, 2004). Another research that underpins the same notion by Paulson (2011c) demonstrates that in spite of years of instructive activities in post-struggle Peru, little has really changed and Peru's education framework still adds to the creation and propagation of imbalance and brutality. Further stated by reproduction theory that education imitates inequality and propagate the overall power structure (Bowles & Gintis, 1976; Hill et al, 2009). In addition the power structure manipulates school funding and limits other access to other educational opportunities (Holsinger, 2005).

Researchers also documented that that work-family conflict is associated with higher level of education and higher status and probably may lead towards deteriorating health condition (see for instance (Bellavia and Frone 2005; Grzywacz, Almeida and McDonald 2002; Mennino, Rubin and Brayfield 2005; Schieman, Kurashina and Van Gundy 2006; Schieman and Glavin 2008). showing of higher education as a “greedy institution” that squeeze worker energy and effort specifically those who are incumbent on higher status (Hodson 2004). The literature is worth reading because it put a question mark on the theory and the pervious researches that higher education is negatively linked with stress (Mirowsky and Ross 2003a; Pearlin 1999). Further, education can be a catalyst of brain washing, militarism and violent religious extremism, which may be the cause of civil conflict (Thyne, 2006: 738). Educated people are more likely to be involved in terrorist activities as they can better understand the religious rationalization invoked by such groups as Berrebi (2007) found positive association with higher education and suicide bombing for instance terrorist organizations are more interested in manipulating educated people who are deprived by the economy Bueno de Mesquita (2005). Over the last decade both the educational and conflict researchers have scratched the relationship between education and conflict. Nevertheless, to date most of the research has been qualitative, which reflect the lack of data and the difficulty level to understand the relationship between education and conflict (Barakat & Urdal, 2009).

3. Methodology

Any simple least square regression analysis may lead to spurious results because of endogeneity problems among the variables (from trade, military spending, social sector expenditure and growth to conflict and vice-versa). It seems necessary to utilise a simultaneous equation model to address potential endogeneity problems between various variables. Since the data is a time-series, it is appropriate to use Vector Autoregressive model (VAR), which is an extension of univariate Autoregressive (AR) models to capture the evolution and the interdependencies between multiple time-series. (Sims 1980) Treat all variables in a VAR symmetrically by including an equation for each variable explaining its evolution based on its own lags and the lags of other variables in the model. The number of equations in a VAR model depends upon the number of endogenous variables; each endogenous variable is regressed on its lagged value, and the lagged values of all other endogenous variables as well as any number of exogenous variables. This solves the problem of endogeneity among variables. In this sense, VAR model is a seemingly unrelated regression (SUR) model with lagged variables and/or deterministic terms as common regressors so that one can interpret the regression results for each equation as ordinary least square estimators.

The basic p – lag vector autoregressive (VAR(p)) model has the form

$$Y_t = c + \Pi_1 y_{t-1} + \Pi_2 y_{t-2} + \dots + \Pi_p y_{t-p} + \varepsilon_t \quad (6.12)$$

where c is a $(n \times 1)$ vector of constants (intercept), Π_i is a $(n \times n)$ matrix (for every $i = 1, \dots, p$) and ε_t is a $(n \times 1)$ vector of error terms.

A bivariate VAR(2) can be written as the following system of equations:

$$y_{1t} = c_1 + \Pi_{1,1}^1 y_{1,t-1} + \Pi_{1,2}^1 y_{2,t-1} + \Pi_{1,1}^2 y_{1,t-2} + \Pi_{1,2}^2 y_{2,t-2} + \varepsilon_{1t} \quad (6.13)$$

$$y_{2t} = c_2 + \Pi_{2,1}^1 y_{1,t-1} + \Pi_{2,2}^1 y_{2,t-1} + \Pi_{2,1}^2 y_{1,t-2} + \Pi_{2,2}^2 y_{2,t-2} + \varepsilon_{2t} \quad (6.14)$$

The lag length p has to be determined by model selection criterion (MSC) because too many lagged terms will consume more degrees of freedom and may introduce the problem of multicollinearity. Introducing too few lags will lead to specification errors. One way of deciding this question is to use Akaike (AIC), Schwarz-Bayesian (BIC) or Hannan Quinn (HQ) criteria and choose the model that gives the lowest values of these criteria. AIC criterion asymptotically overestimates the order with positive probability, whereas BIC and HQ criterion estimate the order consistently under general conditions if the true order p is less than or equal to p_{max} .

After fitting a VAR, it may be important to know which way causalities run. One way to do that is by running Granger causality tests after the VAR analysis. In a bivariate VAR model, a variable y_2 is said to Granger-cause a variable y_1 if, given the past values of y_1 , past values of y_2 are useful for predicting y_1 (Granger 1969). Similarly it is feasible to extend the current analysis to test Granger-causality for multivariate VAR (p), where $Y_t = (y_{1t}, y_{2t}, \dots, y_{nt})'$.

4. Results with VAR models

This section reports the results of the multivariate VAR regression analysis. Proxies treated as endogenous variables include those for conflict, multilateral trade, economic progress, military burden and education, whereas the concepts treated as purely exogenous are dyadic democracy and population. Before carrying out the regression analysis, a test for stationarity is in order for all dyadic variables employed in the analysis. If any of the time-series variables are non-stationary, the research takes appropriate lags to solve for autocorrelation. Stationarity tests use the modified Dicky-Fuller t-test, also known as the DF-GLS test proposed by Elliot, Rothenberg and Stock (1996). Table 6.2 provides unit-root test results based on these criteria.

Table 6.2 shows that nearly all variables have unit roots. Since, these time-series variables are stationary at levels, although with some time lags, this allows the use of unrestricted VAR analysis instead of restricted VECM methodology. It is now possible to proceed to VAR analysis. The reduced form VAR model for conflict is as follows

$$Conf_t = \alpha_1 + \alpha_{2,t-i} Conf_{t-i} + \alpha_{3,t-i} Tr_{t-i} + \alpha_{4,t-i} Mil_{t-i} + \alpha_{5,t-i} E_{t-i} + \alpha_{6,t-i} G_{t-i} + \alpha_7 Demo_t + \alpha_8 P_t + E_t \quad (6.15)$$

Where $Conf_t$, Tr_{t-i} , Mil_{t-i} , E_{t-i} , G_{t-i} , $Demo_t$ and P_t depict interstate conflict, multilateral trade, military burden, education expenditure, real growth rate of GDP per-capita, dyadic democracy score and population respectively; t ranges from 1950-2007 and $i = 1, \dots, p$. Here p is the optimal lag structure for the VAR model. $\alpha_{2,t-i}$, $\alpha_{3,t-i}$, $\alpha_{4,t-i}$, $\alpha_{5,t-i}$ and $\alpha_{6,t-i}$ are (6×6) metrics (for every $i = 1, \dots, p$).

Running the above model for the number of fatalities (*Fatal*), best captures the severity of the militarised conflict between the two nations. Later analysis employs other conflict proxies.

Table 1 DF-GLS unit root tests

Variables	Lag length	With intercept	With intercept and trend
Fatal	1	-3.528* (Ng-Perron)	-3.774* (Ng-Perron)
Volfatal	1	-4.789* (Ng-Perron)	-4.844* (Ng-Perron)
Dur	1	-4.058* (Ng-Perron)	-4.233* (Ng-Perron)
Hiact	1	-2.382** (Ng-Perron)	-2.590 (Ng-Perron)
Hstlev	1	-2.371** (Ng-Perron)	-2.512 (Ng-Perron)
Cnf	1	-3.025* (Ng-Perron)	-4.082* (Ng-Perron)
Xmpi	2	-2.710* (Ng-Perron)	-2.860*** (Ng-Perron)
Xmip	8	-4.951* (MAIC)	-4.923* (MAIC)
Lxpi1	0	2.951** (D-Fuller)	2.951** (D-Fuller)
Lxpi2	0	-4.769* (SIC)	-4.929* (SIC)
Lmpi1	1	-4.049* (SIC)	-3.961* (SIC)
Lmpi2	1	-4.511* (SIC)	-4.382* (SIC)
Lmilbrd6	0	-	-4.308* (SIC)
Ledupi1	1	-	-5.374* (SIC)
Ledupi2	1	-	-5.478* (SIC)
Ledupi3	1	-5.918* (SIC)	-5.907* (SIC)
Ledupi4	1	-	-5.642* (SIC)
Gpi	0	-4.256* (Ng-Perron)	-4.276* (Ng-Perron)
Demopi	7	-2.790* (Ng-Perron)	-2.997* (Ng-Perron)
Poppi	10	-	-7.392* (MAIC)

-, ** and *** shows significance at 1%, 5% and 10% level

- The Lag structure is selected through (1) Ng - Perron sequential t (Ng-Perron), (2) the minimum Schwarz information criterion (SIC), (3) the Ng-Perron modified information criterion (MAIC) and (4) Dickey-Fuller test (D-Fuller).

Table 2 VAR regression equations for fatal under multiple specifications of education

Variables	1	2	3	4	5	6	7	8	9	10	11	12
<i>Social Development</i>												
Ledupi1(2)	-7.70*	-7.13*	-7.01*									
Ledupi2(2)				-8.17*	-7.52*	-7.44*						
Ledupi3(2)							-4.06***	-6.29*	-5.79*			
Ledupi4(2)										-7.96*	-8.93*	-8.91*
<i>Multilateral Trade</i>												
Xmip(8)	-2.68			-2.68			-3.92***			-3.14		
Lxpi1(1)		-3.96*			-3.92*			-5.46*			-4.74*	
Lxpi2(1)			-4.78*			-4.75*			-6.35*			-5.76*
<i>Military Burden^a</i>												
Lmilbrd6 (1)	2.26	3.50**	2.42***	2.44	3.62*	2.58***	-0.96	2.02***	0.45	0.51	2.73**	1.52
<i>Economic Growth</i>												
Gpi (1)	-0.36*	-0.35*	-0.39*	-0.37*	-0.36*	-0.39*	-0.42*	-0.41*	-0.45*	-0.39*	-0.38*	-0.42*
<i>Exogenous Variables</i>												
Demopi (7)	-0.006*	-	-0.003	-0.006*	-0.004*	-0.003	-0.005*	-0.001	-0.001	-0.006*	-	-0.002
Poppi (10)	0.101*	0.154*	0.103	0.107*	0.158*	0.109*	0.031*	0.107*	0.038*	0.021	0.087*	0.028**
N	45	45	45	45	45	45	45	45	45	45	45	45
R2	0.47	0.54	0.55	0.47	0.55	0.55	0.39	0.53	0.53	0.44	0.55	0.56
VAR(p)	VAR(1)	VAR(1)	VAR(1)	VAR(1)	VAR(1)	VAR(1)	VAR(1)	VAR(1)	VAR(1)	VAR(1)	VAR(1)	VAR(1)

-, **, *** shows significance at 1%, 5% and 10% level

- VAR(p) reports lag-order for each VAR model based on final prediction error (FPE), Akaike's information criterion (AIC), Schwarz's Bayesian information criterion (SBIC) and the Hannan and Quinn information criterion (HQIC),

This research investigates potential for education in conflict mitigation in detail by employing four proxies of education expenditure, with three different combinations of multilateral trade, while using *Lmilbrd6* as a common proxy for military burden. The results, presented in Table 2, show a contrast to defence expenditure, which relates positively to conflict. Efforts to improve human capital by allocating more funds to education are a strong determinant of conflict mitigation as the results demonstrate. All four proxies of education expenditure always enter the conflict regression equation with a negative sign, and are significant in all specifications. The high values of $\alpha_{5,t-i}$ indicate that channelling resources to the development sector in general, and investment in education in particular, may go a long way in building peace. The weighted average of Pakistan and Indian per-capita growth rates (*Gpi*) relate negatively and significantly with *Fatal* in all specifications confirming the hypothesis that countries are more peaceful when they are moving forward economically. The combined democracy score (*Demopi*) relates negatively to conflict, and is significant. However, the low values of democracy coefficients suggest that political orientation played a limited role in the India-Pakistan conflict. The present results also show that the high levels of population in both countries, where a significant proportion are uneducated and poor on both sides, contribute positively to the conflict, although the effect is small. The results on *Xmip*, *Lxpi1* and *Lxpi2* confirm yet again that India and Pakistan should open up further, as conflict mitigation is highly responsive to multilateral trade. In other words, it is possible to conclude that a lower military burden would mean both countries could invest more on education and that higher multilateral trade combined with increased education levels will seriously contribute to peace between Pakistan and India on a sustainable basis. Although democracy is also good for peace, economics clearly trumps democracy as a conflict-mitigating factor.

It would be interesting to run multivariate Granger causality tests to see if causality runs from the determinants of conflict to conflict, and whether there are cases of reverse causality. Reduction of hostilities would favourably affect the military burden in both countries, and both India and Pakistan could have more resources to channel towards its development and poverty reduction strategies. The reverse causality from conflict to education expenditure could explain this process. Reverse causality between conflict measures and proxies of education expenditure highlight the resource constraints faced by both sides due to their rivalry where funds allocated to defence seem to crowd out public investment in the development sector. Also found is reverse causality between *Lxpi2*, *Hstslvl* and *Hiact*. This result highlights the economic implication of conflict. If hostility levels rise and conflict moves closer to outright war, it will curtail export capability with the rest of the world for both countries. This will have negative effects on growth potential as well. The growth patterns of both countries are independent of conflict, as far as reverse causality is concerned. The relationship is highly significant at a one per cent level in all the observed instances of Table 2. Any slowdown in growth rates in either of the two nations seems to correlate positively with conflict and this trend has been present since 1950.

Table 3 Granger causality Wald tests

Direction of Causality	Causes	RC	Direction of Causality	Causes	RC
<i>Ledupi1</i> → <i>Fatal</i>	(√)*	(√)*	<i>Lmilbrd6</i> → <i>Fatal</i>	(√)*	(√)*
<i>Ledupi2</i> → <i>Fatal</i>	(√)*	(√)*	<i>Lmilbrd6</i> → <i>Volfatal</i>	(√)*	(√)***
<i>Ledupi3</i> → <i>Fatal</i>	(√)*	×	<i>Lmilbrd6</i> → <i>Cnfpi</i>	×	(√)***
<i>Ledupi4</i> → <i>Fatal</i>	(√)*	(√)***	<i>Lmilbrd6</i> → <i>Dur</i>	×	(√)***
<i>Ledupi1</i> → <i>Volfatal</i>	(√)*	×	<i>Lmilbrd6</i> → <i>Hstlvl</i>	×	(√)*
<i>Ledupi1</i> → <i>Cnfpi</i>	(√)***	(√)***	<i>Lxpi2</i> → <i>Hiact</i>	(√)**	(√)***
<i>Ledupi1</i> → <i>Dur</i>	(√)*	(√)*	<i>Lmilbrd6</i> → <i>Hiact</i>	×	(√)*
<i>Ledupi1</i> → <i>Hstlvl</i>	×	(√)*	<i>Lxpi2</i> → <i>Dur</i>	(√)*	×
<i>Ledupi1</i> → <i>Hiact</i>	(√)***	(√)**	<i>Lxpi2</i> → <i>Cnfpi</i>	(√)*	×
<i>Xmpi</i> → <i>Fatal</i>	(√)**	×	<i>Lxpi2</i> → <i>Hstlvl</i>	(√)*	(√)*
<i>Xmip</i> → <i>Fatal</i>	(√)*	×	<i>Gpi</i> → <i>Cnfpi</i>	(√)*	×
<i>Lxpi1</i> → <i>Fatal</i>	(√)*	×	<i>Gpi</i> → <i>Volfatal</i>	(√)*	×
<i>Lxpi2</i> → <i>Fatal</i>	(√)*	×	<i>Gpi</i> → <i>Dur</i>	(√)*	×
<i>Lmpi1</i> → <i>Fatal</i>	×	×	<i>Gpi</i> → <i>Hstlvl</i>	(√)***	×
<i>Lmpi2</i> → <i>Fatal</i>	×	×	<i>Gpi</i> → <i>Hiact</i>	(√)***	×
<i>Lxpi2</i> → <i>Volfatal</i>	(√)*	×			

*, **, *** shows significance at 1%, 5% and 10% level, RC stands for reverse causation, √ means causes and × means not causes

5. Conclusions:

Our analysis suggests that investment in social development by improving the educational attainment of the populations in India and Pakistan may pave the way for an environment of peace between both countries. The importance of education is underlined in peace and conflict research. Although the practice of drawing on local cultural resources in the management of conflicts and violent memories is gaining acceptance, cultural traditions are arbitrary historical constructs and highly inconsistent. In particular, post colonial countries have hybrid cultures (Dawes and Honwana, 1997). The issue on educational work is how a country's cultural resources can be utilised without reverting to ethno-cultural stigmatisation. A conscious awareness of one's own and others' prejudices, interests and emotions helps to promote empathy. The ability to see things from another perspective opens up creative alternatives. These socio-psychological skills that constitute self awareness, empathy and critical judgement provide an important basis for the development of conflict resolution techniques. Sustained conflict transformation also requires a conscious reappraisal of one's own and prevailing attitudes to conflict. Conflict dynamics and their potential for change must be experienced in a real form (Maringer and Steinweg, 1997).

References

- Akresh and De Walque, 2008 Armed conflict and schooling: evidence from the 1994 Rwandan genocide, Policy Research Working Paper, The World Bank Development Research Group Human Development and Public Services Team
- Akresh, R. and D. de Walque. (2008). "Armed Conflict and Schooling: Evidence from the 1994 Rwandan Genocide," IZA Discussion Paper No. 3516.
- Alderman, H., Hoddinott, J. and Kinsey, B. (2006). "Long Term Consequences of Early Childhood Malnutrition", Oxford Economic Papers, 58 (3): 450-474.
- Barakat, Bilal & Henrik Urdal, 2009. 'Breaking the Waves? Does Education Mediate the Relationship Between Youth Bulges and Political Violence?' Policy Research Working Paper 5114, Washington DC: The World Bank.
- Bellavia. G., & Frone, M. (2005). Work-family conflict. In J. Barling, E. K. Kelloway, & M. Frone (Eds.), Handbook of Work Stress, (pp. 113 ñ 147). Sage Publications: Thousand Oaks.
- Berrebi C, (2007) Evidence about the Link Between Education, Poverty and Terrorism among Palestinians, Peace Economics, Peace Science and Public Policy. Volume 13, Issue 1
- Bird, L., 2007. Children in crisis: Education rights for children in conflict affected and fragile states. Paper commissioned for the EFA Global Monitoring Report 2008, Education for All by 2015: will we make it? UNESCO, Paris
- Blattman and Annan 2011 'The Consequences of Child Soldiering' Review of Economics and Statistics, Vol. 92, No.4, Pages: 882-898
- Bowles, S. & Gintis, H. (1976) Schooling in Capitalist America. New York: Basic Books.
- Buckland, P. (2005) Reshaping the future: Education and postconflict reconstruction. Washington, DC: The World Bank
- Bueno de Mesquita, Ethan (2005a). "The Quality of Terror," American Journal of Political Science, 49 (3): 515-530.
- Chamarbagwala, R. and Morán, H. E. (2009). "The Human Capital Consequences of Civil War: Evidence from Guatemala", HiCN Working Paper no. 59, Households in Conflict Network
- Dawes, A. and Honwana, A. (1997) 'Kulturelle Konstruktion von Kindlichem Leid' in Schnelle Eingreiftruppe Seele, ed. Medico International. Frankfurt/M: Verlag Medico International: 57-67
- de Groot, O. J., & Göksel, I. (2011). Conflict and Education Demand in the Basque Region. Journal of Conflict Resolution, 55(4), 652-677

- Grzywacz, J. G., Almeida, D. A., & McDonald, D. A. (2002). Work-family spillover and daily reports of work and family stress in the adult labor force. *Family Relations*, 51(1), 28-36.
- Hill, D., Greaves, N.M. & Maisuria, A. (2009) Does Capitalism Inevitably Increase Education Inequality? In D.B. Holsinger & W.J. Jacob (Eds) *Inequality in Education: comparative and international perspectives*. Hong Kong: Springer.
- Hodson Randy 2004. "Work Life and Social Fulfillment: Does Social Affiliation at Work Reflect a Carrot or a Stick?" *Social Science Quarterly* 85: 221–39
- Holsinger, D.B. (2005) Inequality in the Public Provision of Education: why it matters, *Comparative Education Review*, 49(3), 297-310
- Justino, P., Leone, M. and Salardi, P. (2013). "Short and Long-Term Impact of Violence on Education: The Case of Timor Leste", *World Bank Economic Review*, in press.
- Keleher (2006), *Reconceptualizing the Relationship between Conflict and Education: The Case of Rwanda*, *The Fletcher Journal of Human Security*
- Kibris, A. (2014). *The Conflict Trap Revisited: Civil Conflict and Educational Achievement*. *Journal of Conflict Resolution*, forthcoming
- Leon, G. (2012). Civil conflict and human capital accumulation. The long term effects of political violence in Peru. *Journal of Human Resources*, vol. 47(4), pages 991-1022
- Maringer, E. and R. Steinweg. (1997) *Konstruktive Haltungen und Verhaltensweisen in institutionellen Konflikten*, Berlin: Berghof Forschungszentrum für konstruktive konfliktbearbeitung
- Mennino SF, Rubin BA, Brayfield A. (2005) Home-to-job and job-to-home spillover: The impact of company policies and workplace culture. *The Sociological Quarterly*. ;46:107–135.
- Merrouche, O. (2006). "The Human Capital Cost of Landmine Contamination in Cambodia," *HiCN Working Paper 25*
- Mirowsky J, and Ross C.E, (2003) *Education, Social Status, and Health*. *Canadian Journal of Sociology*
- P. Justino, M. Leone, P. Salardi (2011), "Education and conflict recovery: The case of Timor Leste," *World Bank Policy Research Paper No. 5774*, July 2011
- Paulson, J. (2011) *Reconciliation through Educational Reform? Recommendations and Realities in Peru*, in J. Paulson (Ed.) *Education and Reconciliation. Exploring Conflict and Post-Conflict Situations*. London: Continuum.

Pearlin, L. I. (1999). The Stress Process Revisited: Reflections on Concepts and Their Interrelationships. In C. S. Aneshensel, & J. C. Phelan (Eds.), *Handbook of the Sociology of Mental Health* (pp. 395-415). New York: Springer.

Rodriguez, C. and Sanchez, F. (2012). Armed conflict exposure, human capital investments and child labor: Evidence from Colombia. *Defence and Peace Economics*, vol.23 (2), 161-184

Schieman Scott, Glavin Paul. (2008) 'Trouble at the Border? Gender, Flexibility at Work, and the Work-Home Interface. *Social Problems*. 55:590–611.

Schieman, Scott, Yuko Kurashina, and Karen Van Gundy. 2006. "The Nature of Work and the Stress of Higher Status." *Journal of Health and Social Behavior* 47:242-57

Shemyakina, O. (2011). "The Effect of Armed Conflict on Accumulation of Schooling: Results from Tajikistan", *Journal of Development Economics* 95 (2); 186-200.

SINCLAIR, M. (2004). Planning Education Before, In and After Emergencies: Internet Discussion Forum 27 September – 22 October (The IIEP Virtual Institute) [online]. Available: http://www.unesco.org/iiep/eng/focus/emergency/PDF/for_rep_04.pdf [13 January, 2005].

Smith, A. & Vaux, T. (2003). *Education, Conflict, and International Development*. London: Department of International Development.

Tawil, S. & Harley, A. (Eds.) (2004). *Education, Conflict and Social Cohesion*. Geneva: Thyne, Clayton, 2006. 'ABC's, 123's, and the Golden Rule: The Pacifying Effect of Education on Civil War, 1980–1999', *International Studies Quarterly* 50(4): 733–754.

UNESCO (2010). *The Quantitative Impact of Conflict on Education*. Background paper for Education for All Global Monitoring Report 2011, UNESCO Institute for Statistics.

UNESCO IBE. Thyne, C.L. (2006). ABC's, 123's, and the Golden Rule: the pacifying effect of education on civil war, 1980–1999. *International Studies Quarterly*, 50, pp.733-754.

UNICEF (2009) *Machel Study 10 year Strategic Review*. Children and Conflict in a Changing World

Urdal, Henrik. 2006. A Clash of Generations? Youth Bulges and Political Violence. *International Studies Quarterly* 50(3): 607–630.

Valente, C. (2013). *Education and Civil Conflict in Nepal*. World Bank Economic Review, forthcoming

Data and Sources

	Variables	Sources
	Dyadic Variables	
	<i>Conflict</i>	
Cnfp	Intensity of Conflict between Pakistan and India, Scores 1 (minor) when 25 to 999 battle-related deaths and 2 (war) when at least 1000 battle-related deaths in a given year,	Years: 1950-2003, Sources: UCDDP/PRIO Armed Conflict Data set Version IV, Harbom et al. (2006)
Dur	Number of days a conflict lasts in a year between Pakistan and India,	Years: 1950-2003, Source: COW Inter-State War Data, Version 3.02, Faten et al. (2004)
Fatal	Annual fatality level of conflict between Pakistan and India, scores from 0 to 6 0 None 1-25 Deaths 26-100 Deaths 101-250 Deaths 251-500 Deaths 501-999 Deaths 6 >999 Deaths	Years: 1950-2003, Sources: COW Inter-State War Data, Version 3.02, Faten et al. (2004)
Hiact	Highest action by Pakistan and India in annual corresponding dispute [bracketed numbers refer to corresponding hostility level] 0 No militarised action [1] 1 Threat to use force [2] 2 Threat to blockade [2] 3 Threat to occupy territory [2] 4 Threat to declare war [2] 5 Threat to use CBR weapons [2] 6 Threat to join war [2] 7 Show of force [3] 8 Alert [3] 9 Nuclear alert [3] 10 Mobilisation [3] 11 Fortify border [3] 12 Border violation [3] 13 Blockade [4] 14 Occupation of territory	Years: 1950-2003, Source: COW Inter-State War Data, Version 3.02, Faten et al. (2004)

	<p>[4] 15 Seizure [4] 16 Attack [4] 17 Clash [4] 18 Declaration of war [4] 19 Use of CBR weapons [5] 20 Begin inter-state war [5] 21 Join inter-state war [5]</p>	
Hstlev	<p>Annual hostility levels reached by India and Pakistan in each annual corresponding dispute No militarised action Threat to use force Display of force Use of force War</p>	<p>Years: 1950-2003, Source: Faten et al. (2004)</p>
VolFatal	<p>Precise volume of fatality in each annual corresponding dispute,</p>	<p>Years: 1950-2003, Sources: COW Inter-State War Data, Version 3.02 (Faten et al. 2004), CSCW/PRIO Battle Deaths data (Lacina 2005), CSP Data set on Major Episodes of Political Violence 1946-2006 http://members.aol.com/cspmgm/warlist.htm</p>
	<i>Multilateral Trade</i>	
Xmpi	<p>Pakistan's total trade (exports + imports) as a ratio of India's total trade (exports + imports),</p>	<p>Years: 1950-2001, Source: International Financial Statistics 2006 (IMF)</p>
Xmip	<p>India's total trade (exports + imports) as a ratio of Pakistan's total trade (exports + imports),</p>	<p>Years: 1950-2001, Source: International Financial Statistics 2006 (IMF)</p>
Lmpi1	<p>Log GDP weighted average of Pakistan and India's total imports,</p>	<p>Years: 1950-2005, Source: International Financial Statistics 2006 (IMF)</p>
Lmpi2	<p>Log mean average of Pakistan's total imports as a proportion of Pakistan's GDP and India's total imports as a ratio of India's GDP,</p>	<p>Years: 1950-2005, Source: International Financial Statistics 2006 (IMF)</p>
Lxpi1	<p>Log GDP weighted average of Pakistan and India's total exports,</p>	<p>Years: 1950-2001, Source: International Financial Statistics 2006 (IMF)</p>
Lxpi2	<p>Log mean average of Pakistan's total exports over Pakistan's GDP and India's total exports over India's GDP,</p>	<p>Years: 1950-2001, Source: International Financial Statistics 2006 (IMF)</p>
	<i>Military Burden</i>	

Lmilbrd6	Log GDP weighted average of Pakistan and India's defence expenditures,	Years: 1950-2005, Sources: Correlates to war data set version 3.02, World Development Indicators 2006 (World Bank), Government Finance Statistics Year Book (IMF), Economic Survey of Pakistan, Economic Survey of India
	<i>Economic Growth</i>	
Gpi	Weighted average of real GDP per capita growth rates for Pakistan and India,	Years: 1950 to 2005. Sources: Pakistan Economic Survey, Indian Economic Survey, International Financial Statistics 2006 (IMF)
	<i>Democracy</i>	
Demopi	Pakistan and India's combined democracy score (by adding 10 to India and Pakistan's Polity2 values for each year and then taking the product of these values in order to convert the variable in dyadic form),	Years: 1950-2003, Source: Polity IV Project (Centre for International Development and Conflict Management)
	<i>Population</i>	
Poppi	Average of Pakistan's total population and India's total population	Years: 1950-2001, Source: International Financial Statistics 2006 (IMF)