

The Effect of Armed Conflict in Tajikistan on the Marriage Market and Female Reproductive Behavior¹

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1. Introduction

The first ten years of Tajikistan's independence from the Soviet Union in 1991, were probably even more turbulent than country's first years as a part of the USSR in 1920s. A combination of economic crisis, civil war, internal displacement and natural disasters ravaged the country.

The burden of crises inflicted on the population of the country is reflected in the mortality and morbidity patterns (Hoeffler and Reynal-Querol, 2003; Ghobarah, Huth, Russett, 2003). However, the relationship between violent conflict, marriage and reproductive behavior has not been researched extensively. Additionally, although there have been studies on the impact of armed conflict on fertility and mortality (Verwimp and van Bavel, 2005; Lindstrom and Berhanu, 1999; McGinn, 2000), there is still limited research on Central Asia.

This paper will combine unique data on the events during the 1992-1998 armed conflict in Tajikistan with individual and household data from the 1999 and 2003 Tajik Living Standards Measurement Surveys. This data will be used to examine impact of the 1992-1998 armed conflict on the marriage market and fertility, and their link to other social and demographic processes. To my knowledge, this project is the first to use the individual and household data to study the marriage market in Tajikistan.

An individual's year of birth and region of residence during the conflict will help to identify individual's exposure to the conflict. More specifically, I compare marriage and reproductive pattern of women were in or about to enter the marriageable age group in 1991, at the start of the armed conflict in Tajikistan, those of women from older birth cohorts.

2. Relevant literature

2.1 Potential effects of armed conflict on the marriage market for women

Three competing but not unrelated theories may illustrate the potential impact of civil wars on marriage market.

First, a decrease in the population of men in the marriageable age group may affect age at which women enter their first marriages. According to John Caldwell et al (1983), the marriage squeeze hypothesis asserts that due to increase in population and the gender age gap at marriage, marriageable men are scarce relative to marriageable women. It is possible that during or following the war, young marriageable men disproportionately “disappear” from country’s population. In such case, women who were too young to be married at the start of the war may face a shortage of men in the relevant age group. This shortage of men or a “marriage squeeze” on women may lead to the following adjustments in the marriage market:

- 1) Many women may not be able to get married as early as before as fewer men are available. The average age at first marriage for the cohort exposed to the conflict may increase since women may have to wait longer to find a suitable partner. However, if competition for men in the marriage market increases and youth is valuable, when we may observe a decrease in the average age at first marriage for

- women who are lucky enough to find a partner. This societal rush to marry girls early may decrease chances of getting married or finding a suitable partner for women who crossed the peak marriageable age.
- 2) Differences in age and education level between husbands and wives may change in the post-war period as compared to the pre-war years. Women may have to marry men from the older birth cohort or with a lower education level than preferred.
 - 3) A civil war or conflict may influence customary pre-marriage gift-giving practices. During wars, men are more likely to die in fighting than women. In such cases, an equilibrium bride's price (dowry) may fall (increase) because men in the relevant age group have become more scarce and therefore, more valuable (Rao, 1993).

2) Decrease in resources

Second, armed conflicts inevitably lead to a decrease in the resources available to households. In many societies marriage is an important consumption smoothing mechanism (Kotlikoff and Spivak 1981; Rosenzweig and Stark 1989), which may become particularly important when households face highly variable consumption streams and their access to credit markets is limited. Additionally, as marriage is often considered to be an alliance of household or clan networks (Monaghan and Just 2000), entering a favorable alliance allows a household to smooth consumption by using economies of scale in labor and household production (Becker 1973). Poor families may marry their daughters' very young while the "youth" component of the bride price or prospects of a favorable alliance are high. Thus, an earlier daughter's marriage may help the rest of the family to get through the crisis.

3) Security concerns

Third, conflict may increase real or perceived danger for young women. The danger could be associated with potential rape, if ethnic cleansing is common. Also a girl may be kidnapped as a potential bride and perceived dishonored if not married to the kidnapper (a practice common in Central Asia). Thus, families, if they want to exercise more discretion over their children's lives, may marry their daughters to a first acceptable suitor, even if a suitor is not wealthy enough or is already married.

2.2 Potential effect of armed conflicts on fertility outcomes

The effect of civil wars on fertility is unclear.

First, according to the relevant development economics literature, there is the old-age security motive for having children. Children serve as insurance against old age and disability when household income is unstable and cannot be insured. During civil wars, physical assets of a household may not be considered a good investment as assets may be looted or destroyed. In such situations, the value of having many children may increase as parents view them as future providers for the family.

However, during wars and related calamities, household incomes are limited. To maintain their consumption, families may postpone having children until better times come. Thus, birth rates during conflict may decrease.

Further, the decrease in the birth rates may be due to the prolonged absence of men in families as they may be at war or died.

Forth, medical facilities are often looted and destroyed in the conflict. In conflict affected areas, the number of home deliveries without qualified medical personnel would increase and it is likely to have a positive effect on infant and maternal mortality. In Tajikistan, the maternal and under-5 child mortality increased significantly during the 1991-1998 (see Fig. 1). It is unclear how such mortality changes would affect fertility. It is possible that some women will delay childbirth until better times, while others may attempt having more children since some of the children may die very young. .

3. Methods

This paper will use two empirical approaches. The first strategy will employ a difference in differences estimation to account for a relative impact of war on the population of young women who lived in the regions affected by war and who were too young to be married before the war started.²

The second empirical approach employs hazard functions to compare, at same ages, the odds of becoming married for women who were exposed to the war and those who were not. The odds of having first child will be computed in a similar way.

The Nelson-Aalen cumulative hazard function will be used to estimate discrete yearly hazard rates. In addition to non-parametric estimation, I will use the Cox proportional hazard model and several parametric hazard models.

4. Preliminary results

The data (see Table 1) support the "marriage squeeze" hypothesis in Tajikistan. Overall, the number of men to 1,000 women in most marriageable age groups in the war affected areas considerably declined in 2000 as compared to 1989. During the same period, the number of young widows ages 20-39 in war-affected Khatlon, RRS and Dushanbe regions increased by 2.0-3.5% (see Table 2).

Preliminary regression results suggest that women born in 1975-1980, residing in the conflict affected areas, were 9-17% more likely to have their first child by age 20 and 5% more likely to get married by 16 than women of the same age from the less affected areas.

Further examination of the interaction of age and intensity of exposure to the conflict will be important to determine some of the potential relationships between conflict and reproductive behavior.

² A similar empirical strategy was used in Shemyakina (2006) to estimate the impact of age and regional exposure to conflict in Tajikistan on the educational attainment by individuals.

Table 1

War cohort: Men of marriageable age to 1,000 women. 1989 vs 2000.

Region	1989	2000	% change to 1989
Republic of Tajikistan	888	862	-2.93
Region:			
GBAO	917	873	-4.82
Sugd	850	887	4.34
Dushanbe	1267	890	-29.73
Khatlon	807	844	4.49
<i>Kurgan-Tube (city)</i>	996	855	-14.16
<i>Kulob (city)</i>	785	731	-6.88
RRS	897	842	-6.19

Source: Goskomstat RT, 2002.

Note: Women, ages 13-22 and men - ages 18-27 in 1992.

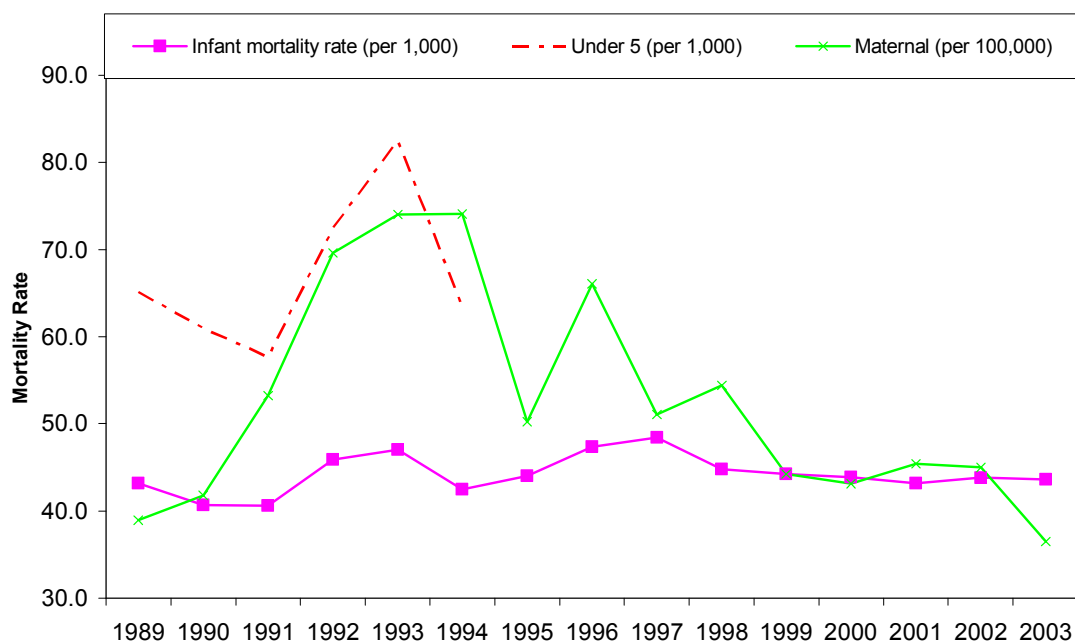
Table 2

Widows as a percentage of relevant age group. 1989 vs 2000.

Age groups	GBAO		Sugd		Dushanbe		Khatlon		RRS	
	1989	2000	1989	2000	1989	2000	1989	2000	1989	2000
15-19	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.2
20-29	0.8	1.4	0.8	1.5	0.6	2.0	0.9	3.4	0.8	3.0
30-39	3.1	3.8	2.5	3.6	2.1	5.5	2.1	6.4	2.2	5.7
40-49	7.8	8.7	7.9	8.3	7.3	10.7	6.3	9.7	6.3	9.0
50-59	19.1	19.9	18.7	20.1	18.9	22.1	15.6	19.4	14.7	19.3
60-69	38.0	37.5	47.0	38.4	43.3	40.7	39.2	35.8	39.1	35.4
70+	66.5	69.6	80.5	75.5	77.5	68.6	69.8	70.1	69.7	70.7

Source: Goskomstat RT. 2003. "Regions of Republic of Tajikistan"

Fig. 1 Tajikistan: Child and Maternal Mortality, 1989-2003



Source: UNICEF 2005

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