Migration and Armed Conflict:
The Case of Internal Migration During the Maoist Insurrection in Nepal

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INTRODUCTION
Violent political conflicts create high death tolls, topple governments, cripple economies the world around. On a micro-level, in addition to high death tolls, large-scale violent conflicts can also affect huge social and economic consequences for civilians. In the case of migration, we know very generally that some people migrate to escape conflict, whether the danger may be imminent, possible, or perceived. We also know, yet often tend to overlook, that many people do not move during times of armed conflict. Beyond this, we understand little about the motivations and spatial patterns of migration during conflict, as well as the heterogeneity in who moves and who does not. We also understand little about how people assess danger during times of armed conflict, and what threshold of danger may be necessary to instigate migration.

Unfortunately, there has been little sociological input on these questions. As Castles states, "There is little sociological literature on forced migration and one certainly cannot find a developed body of empirical work and theory." (Castles 2003). The lack of empirical research in this area is understandable, for the simple fact that there is scarce, if any, detailed data about individual characteristics and movements during any given conflict situation. Reasons for the lack of theoretical work from a sociological perspective on the subject of migration during armed conflict are somewhat less clear, especially given the relatively large body of theoretical and empirical work on migration in general.

In this paper, I examine migration during armed conflict, addressing both motivations for the migration decision, and patterns of origin and destinations. Using the on-going Maoist conflict in Nepal as a case study, I test a set of theory driven hypotheses using a unique longitudinal data set that covers a period of six years, both before and during the outbreak of nationwide violence.

THEORETICAL FRAMEWORK
I use the theoretical and empirical body of literature on migration in general as a framework within which to discuss the possible affects of armed conflict on migration. The strong body of literature on migration in general has provided support for both macro- and micro-level determinants of migration. Here, I discuss how armed conflict might change the macro- and the micro-level circumstances that affect people's decisions to migrate.

Both theory and empirical evidence argue that macro-level structures affect migration. For example, neo-classical economics theory cites wage differentials as a primary determinant of migration (Harris and Todaro 1970); world systems theory argues that

regional and national level changes in the market system can affect migration (Massey and Espinosa 1997).

Castles argues that sociologists should also consider armed conflict as a macro-level phenomenon that can affect migration (Castles 2003). In addition to the other macro-level circumstances mentioned above, armed conflict may cause people to fear physical harm or death, to which they may react by migrating away. People may fear physical harm due to indiscriminate killing from bombs, grenades, or fire fights, discriminate killing, torture, or abduction, and unwanted conscription into military service. They may also fear an apparent lack of government stability and security. When governments have less control of an area, the rule of law can break down and this can be accompanied by theft, looting, rape, or extrajudicial killings. All of this may heighten the fear of residents in the area, which in turn may increase the likelihood that they will migrate away to escape the dangers, whether real or perceived.

Individuals' experiences with violent conflict may condition their sense of fear and thus their likelihood to move away. People who *experience* violence from a conflict are likely to subsequently experience greater fear than people who *witness* the effects of the violence. These people in turn are likely to experience greater fear than people who do not see or experience, but *hear about* the violence, through the media or word of mouth. Thus, I predict that local incidents will produce greater fear and more out-migrations from an area than incidents that occur farther away.

On a micro-level, armed conflict may also change other aspects of peoples' lives that we believe to affect migration. Research on migration in general has provided strong theoretical and empirical support for several individual and family level characteristics as determinants of migration, including wages and occupation (Harris and Todaro 1970, Stark and Bloom 1985), land and business ownership (Massey and Espinosa 1997), and education, health, and other social services (Stark and Bloom 1985, Stark and Taylor 1991, Quinn and Rubb 2005, Donato 1993).

Armed conflict can cause these economic and social circumstances of peoples' lives to deteriorate. Agricultural activities may be interrupted; transportation may be disrupted, cutting people off from markets where they sell and buy their goods; businesses may be threatened; and military forces may forcibly require goods and food or impose taxes. Conflict may also weaken the government and impinge on its ability to provide education, health and other social services. This heightened economic and social insecurity may also motivate people to move away from violent conflict.

The nature and geographic spread of a conflict may also affect the spatial patterns of migration. If individuals or families make the decision to migrate away from a conflict zone, they are likely to move to an area that is safer. Beyond the initial consideration of finding a safe place to live, other considerations of social contacts (Massey et al 1987), economic opportunities (Harris and Todaro 1970, Stark and Bloom, 1985, Massey and Espinosa 1997), and ethnic or linguistic similarities may further direct their choice of destination. Alternately, individuals or families who live in relatively safe areas during

an armed conflict may be less likely than otherwise to migrate away. Considerations of safety during times of conflict may override other considerations of economic or social opportunity that can instigate people to migrate. We would expect to find lower rates of out-migration from safer areas during a conflict.

CONTEXT

The context of this study is the Maoist insurrection in Nepal, which began in 1999. Following a relatively unsuccessful political campaign, in early April 1999 the Nepalese Maoist party made a formal declaration of "People's War" with the aim to unseat the current royalist government and install a democratic government. Prior to 1999, the earlier stages of the insurrection were contained primarily in several western districts and aimed at government installations and security forces. In early 1999, the Maoists expanded their campaign nationwide, beginning with bomb explosions in Kathmandu. Since then, reported violent acts by the Maoists and Nepalese government security forces against civilians include torture, killing (both discriminate and indiscriminate), abductions, conscription, taxing, and general strikes (South Asia Terrorism Portal 2006b, BBC 2006). Several cease fires have been called and subsequently broken. The government called a state of emergency and instituted martial law from 2001 until 2005. Between 2000 and 2003, the Maoists were responsible for a total of 2854 deaths and the government security forces were responsible for 5614 deaths (Human Rights Documentation and Dissemination Center 2006).

The setting for this study is the Chitwan Valley in south-central Nepal. It is flat, fertile, primarily rural, and dominated by agriculture. Far from the western regions of the country, where the Maoist insurrection started and has raged the strongest, and far from the capital and government stronghold Kathmandu, the Chitwan Valley has remained one of the safer, less affected districts in Nepal throughout the conflict. This of course is relative to other areas. Between 1996 and April 2006, Chitwan has experienced 194 conflict related fatalities. This is just higher than the average number of fatalities of all districts, but much lower than the fatality toll of the most-affected western districts that have experienced from 300 to 950 deaths throughout this same time period (Human Rights Documentation and Dissemination Center 2006). Other violent disturbances in Chitwan have been infrequent, including a 2003 bombing and few firefights between Maoists and government security forces. Along with these visible and countable disturbances, the people of Chitwan Valley have been subjected to taxes, billeting, conscription (by both Maoists and the government), curfews, and general strikes.

DATA AND METHODS

To empirically test migration during the Maoist conflict, I use longitudinal survey data from the Chitwan Valley Family Study (CVFS). The data set I use in these initial analyses spans a period of six years, starting in 1997, three years before the outbreak of nation-wide violence, and continuing for three more years during the violence until the end of 2002. As such, the CVFS is a particularly unique opportunity to study migration patterns during armed conflict in comparison with migration patterns during the 'normal' times before the conflict. Data from the period of 2003 until 2006 (still during the Maoist conflict) has just become available and will be included in the final analysis for this

paper. Collected from residents on a monthly basis for all six years, the CVFS data includes detailed information on individual characteristics and residence.

I create figures of the monthly magnitude of in-migration and the monthly rate of out-migration from the Chitwan Valley during the period of 1997 to 2003. I also use a series of discrete-time hazard models to test the monthly hazard of first migration out of Chitwan during the period of 1997 to 2003. These models test the likelihood of migrating out of Chitwan, contingent upon variables measuring the period of conflict and several specific months. I control for individual characteristics- age, gender, marital status, household size- as well as months of the year to account for regular seasonal migration patterns.

RESULTS AND DISCUSSION

Results from these models provide evidence that in- and out-migration from the Chitwan Valley did respond to the Maoist insurrection in general and to specific events during the conflict. Figure 1 shows the number of people who moved in to the Chitwan Valley each month. In-migration to Chitwan before the outbreak of nationwide violence remains relatively steady at an average of about 135 people per month. Monthly in-migration jumps to an average of about 294 people per month after about March 2000. In addition, there are several months with much higher in-migration, particularly May 1997 when 451 people moved in, May 1998 when 235 people moved in, and July 2001 when 611 people moved in.

Figure 2 shows the rate of out-migration from the Chitwan Valley each month. Out-migration appears to steadily decline from about 3% in April 1997 until about March 2000. After this time, the percent of the population that moved out of the area in each month reached a steady rate of just less than 1%. There is one significant peak; out-migration reaches about 2.3% in August 2001.

Results from the hazard models of out-migration, shown in Table 1, confirm these findings. The odds ratio of the *"During war"* variable in Model 3 is 0.53; this indicates that an individual is almost half as likely to move away from Chitwan during the wartime than before the wartime. The odds ratios of specific months indicate much higher out-migration; in February 2001, an individual is 2.34 times more likely to move out, in August 2001, the likelihood increases to 2.76 times, and in June 2002 it is 1.74 times.

Changes of in-migration to Chitwan coincide with the general outbreak of hostilities in the insurrection. In-migration was lower when hostilities across Nepal are lower and higher when hostilities increased. On the other hand, patterns of out-migration are exactly the opposite. Both the monthly out-migration rate and the hazard model indicate that out-migration from Chitwan was higher before the violence and lower when violence reached Chitwan. With time, as Chitwan became less safe, people were less likely to move away. At first glance, this appears exactly opposite of what theory would suggest. However, we must consider the broader context of safety in the whole of Nepal. Although Chitwan became less safe with time, it was relatively safer than other areas in the country. Thus, after March 2000 people were likely to move away from other unsafe

areas and into the relative safety of Chitwan and those already living in Chitwan were less likely to move away to less safe places. This supports the hypothesis that people are likely to move away from less safe places and towards more safe places, in this case-Chitwan.

I now turn to specific months that had statistically higher, but brief, spurts of out-migration and in-migration. In tracking down the incidents or situations that occurred just prior to these months, I speculate that certain events had an impact on migration. While the nature of the data I am using do not allow me to state that certain incidents caused the higher migrations, it does give us strong reason to believe that they affected the migrations.

In February 2001, out-migration from Chitwan significantly increased. Just prior to this, in January 2001, the King activated the armed police force to fight against the Maoists. In February 2001, on the fifth anniversary of the People's War, the Maoists also escalated insurgent activities. Consequently, February witnessed the highest civilian death toll, 12 people (Human Rights Documentation and Dissemination Center 2006), of the insurrection to date.

In July 2001, in-migration to Chitwan spiked. During the next month, August, out-migration from Chitwan also spiked significantly. The previous few months, from May through July, again witnessed increases in Maoist violence, as well as general turmoil in the central government. On May 27, the Maoists called for a nation-wide general strike. On June 1, the royal family was killed in a mysterious shooting spree by the Crown Prince. In July, Maoist violence increased and 94 people were killed in one month (Human Rights Documentation and Dissemination Center 2006), more than had ever been killed in the insurrection to that date. Also in July, the Prime Minister, Deputy Prime Minister and Home Minister all resigned from their positions, citing the crisis in the country.

In June 2002, out-migration from Chitwan again increased significantly for the month. The months prior to this date again witnessed increases in violence and instability in the central government. In April of that year, the Maoists called a five-day nationwide general strike. May witnessed intense clashes between Maoist fighters and government security forces, killing two civilians, 46 security forces, and 975 Maoists (Human Rights Documentation and Dissemination Center 2006). Again, this was the highest death toll of any month to date. Finally, the King dissolved the Parliament in May.

All of these months that witnessed large increases in migration were directly preceded by increased violence and fatalities. While there have been conflict related fatalities during every month since 1997, the difference in these specific months is that they were preceded by increases in fatalities. This leads me to speculate that the absolute number of casualties or level of violence may cause general increases in migration over longer periods of time, whereas sharp *increases* in violence and fatalities relative to the previous level may stimulate immediate migration.

All of these months of high migration were also preceded by general instability in the government, from nationwide strikes, the palace killings, resignation of high government officials and the dissolution of the Parliament. This suggests that specific instances of instability in the government which may weaken the trust of civilians and increase the sense of danger. This in turn may stimulate migration.

CONCLUSION
The results of this study indicate that individual migration responses are affected by violent political conflict. In Nepal, there is evidence of higher migration away from unsafe areas, and lower migration away from the relatively safer areas of Chitwan Valley. There is also evidence that people react quickly, within a month or two, to specific instances of violence, particularly to relative increases in fatalities. Signs of government instability and control also appear to have an affect on out-migration.

From 2003 until the present, there have been more local incidents of violence in Chitwan, including a bombing in 2003, a landmine explosion in 2005 that caused 36 civilian deaths, and open fire fights between the Maoists and the government security forces in 2006 (South Asia Terrorism Portal 2006a, South Asia Terrorism Portal 2006b). Further analyses for this paper with recently available data covering these years will provide more opportunities to understand if and how very local and visible events affect immediate migration responses. Furthermore, it will be interesting to examine if times of relative peace, such as ceasefires, may affect broad migration patterns.

This study addresses broadly how migration patterns during times of conflict may differ from times of relative safety. While these results provide evidence that armed conflict does affect the likelihood of migration for some people, it also shows that many people may not be changing their behavior during the time of conflict. Further analyses to examine how individual and household characteristics affect migration during times of conflict, compared with how they affect migration during times of relative safety, will provide a more thorough and detailed understanding of why some people migrate and why many people do not migrate during armed conflict.

REFERENCES
BBC News. 2006. "Timeline: Nepal. A Chronology of Events." BBC News accessed online at http://news.bbc.co.uk/2/hi/south_asia/country_profiles/1166516.stm on June 21, 2006.
Castles, Stephen. 2003. "Towards a Sociology of Forced Migration." Sociology 37(1):13-34.
Donato, K.M. 1993. "Current Trends and Patterns of Female Migration - Evidence from Mexico." *International Migration Review* 27(4):748-771.
Harris, J.R. and M.P. Todaro. 1970. "Migration, Unemployment and Development: a Two-Sector Analysis." *American Economic Review* 60(1):126-142.
Human Rights Documentation and Dissemination Center. 2006. Human Rights Yearbook. Kathmandu, Nepal.

Massey, D.S., R. Alarcon, J. Durand, and H. Gonzalez. 1987. "*Return to Aztlan: The Social Process of International Migration from Western Mexico*." Berkeley, University of California Press.

Massey, D.S. and K.E. Espinosa. 1997. "What's Driving Mexico-U.S. migration? A Theoretical, Empirical, and Policy Analysis." *The American Journal of Sociology* 102(4):939.

Quinn, M.A. and S. Rubb (2005). "The Importance of Education-Occupation." *Demography* 42(1):153-167.

South Asia Terrorism Portal. 2006a. "Fatalities in Maoist Insurgency". Institute for Conflict Management.

South Asia Terrorism Portal. 2006b. "Major Incidents of Terrorist Violence in Nepal, 1999-2006." Institute for Conflict Management.

Stark, O. and D.E. Bloom. 1985. "The New Economics of Labor Migration." *American Economic Review* 75:173-178.

Stark, O. and J.E. Taylor. 1991. "Migration Incentives, Migration Types: The Role of Relative Deprivation." *The Economic Journal* 101:1163-1178.

（TABLES AND FIGURES ON NEXT PAGE）

TABLES AND FIGURES

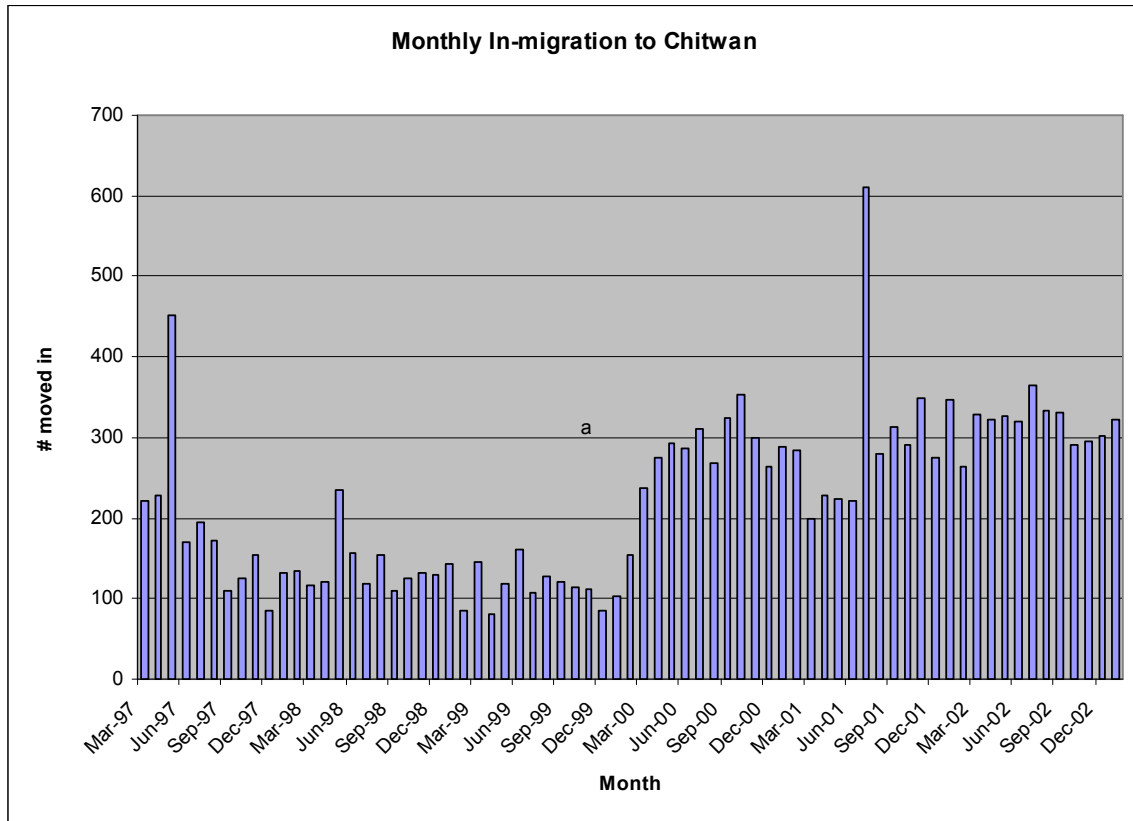Figure 1. Monthly in-migration to Chitwan Valley

Monthly In-migration to Chitwan
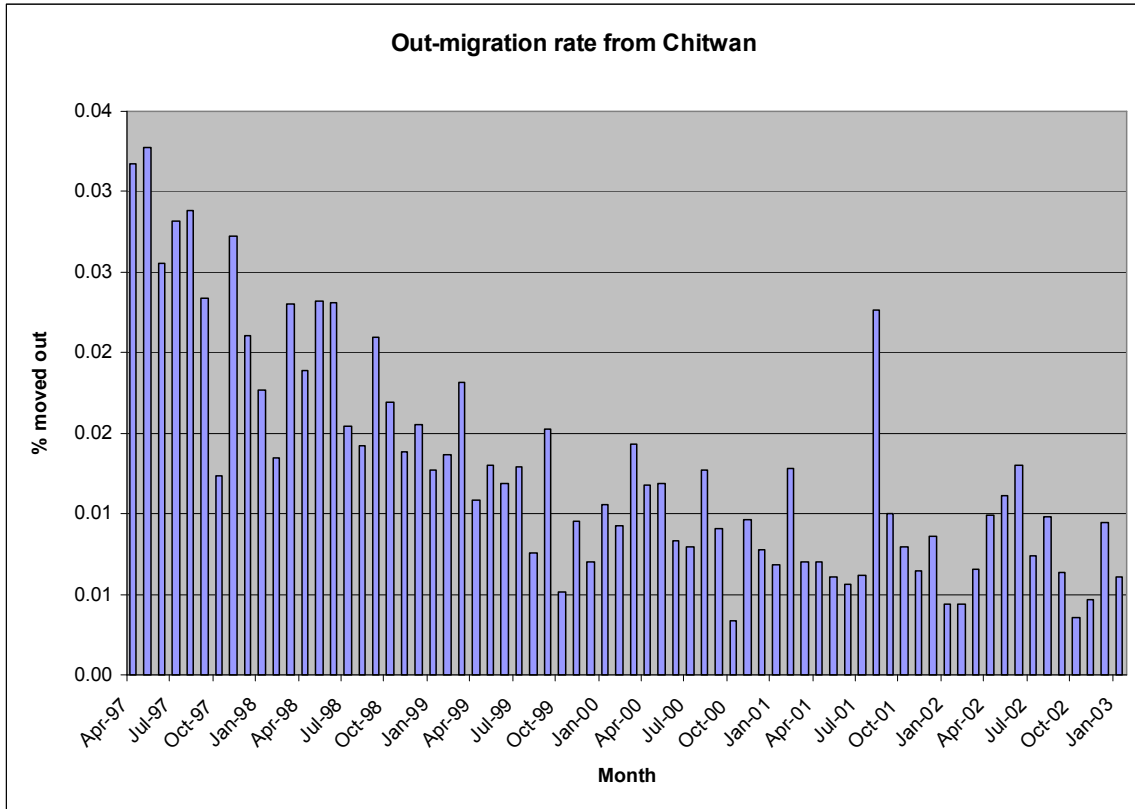
Figure 2. Monthly out-migration rate

Out-migration rate from Chitwan

Table 1. Hazard of first* migration out of neighborhood in Chitwan

Variable	Model 1	Model 2	Model 3
WAR EVENTS			
During war (May 2000 – January 2003)		**.59 ***** (10.24)	**.53 ***** (11.40)
February 2001			**2.34 ***** (3.76)
August 2001			**2.76 ***** (5.75)
June 2002			**1.74 **** (2.47)
PERSONAL CHARACTERISTICS			
Age 12 – 20	**1.13 ***** (4.00)	**1.19 ***** (5.50)	**1.18 ***** (5.50)
Age 21 – 25	**.85 ***** (7.61)	**.86 ***** (7.30)	**.86 ***** (7.29)
Age 26 – 30	**.90 ***** (4.89)	**.91 ***** (4.59)	**.91 ***** (4.59)
Age 31 – 40	**.94 ***** (5.95)	**.94 ***** (5.59)	**.94 ***** (5.60)
Age 41 – 50	**1.01** (0.70)	**1.01** (0.66)	**1.01** (0.66)
Age 51 +	**.97 ***** (3.13)	**.97 **** (2.78)	**.97 **** (2.78)
Female	**.52 ***** (14.59)	**.53 ***** (14.02)	**.53 ***** (14.02)
Single/Never married	reference --------	reference --------	Reference --------
Married, living with spouse	**1.47 ***** (5.38)	**1.39 ***** (4.50)	**1.38 ***** (4.49)
Married, not living with spouse	**2.43 ***** (10.04)	**2.26 ***** (9.17)	**2.26 ***** (9.15)
Widowed	**2.59 ***** (6.41)	**2.43 ***** (5.96)	**2.42 ***** (5.96)
Divorced/Separated	**2.21 ***** (3.58)	**2.02 ***** (3.18)	**2.02 ***** (3.17)
Household size (number of people)	**.99 ^** (1.50)	**.99 ^** (1.60)	**.99 ^** (1.60)
MONTHS OF THE YEAR			
January	**.72 **** (3.00)	**.69 ***** (3.44)	**.71 ***** (3.10)

February	**.72 **** (3.05)	**.69 ***** (3.48)	**.63 ***** (3.94)
March	**.97** (0.30)	**.93** (0.77)	**.96** (0.45)
April	**.88** (1.36)	**.83** (1.96)	**.85** (1.64)
May	**1.18** (1.86)	**1.15** (1.58)	**1.19** (1.94)
June	reference --------	reference --------	reference --------
July	**.95** (0.53)	**.93** (0.77)	**.97** (0.37)
August	**1.10** (1.03)	**1.08** (0.80)	**.99** (0.12)
September	**1.02** (0.20)	**1.00** (0.03)	**1.04** (0.36)
October	**.59 ***** (4.88)	**.57 ***** (5.06)	**.60 ***** (4.65)
November	**.89** (1.21)	**.87 ^** (1.40)	**.91** (1.01)
December	**.83 *** (1.91)	**.81 *** (2.09)	**.84 *** (1.69)
Intercept	- 3.8296	- 4.0505	- 4.0618
No. of obs	164,504	164,504	164,504
-2 log likelihood	23321.374	23208.805	23,166.484

NoteS:
* 'first migration' means the first migration after 1996
Only original respondents are included (ie resident in Chitwan in January 1997.)
Estimates are presented as odds ratios.
Asymptotic z-statistics are given in parentheses.
Age variables are created through a spline function. Thus there is no reference category.
^ p<.10   *p<.05   **p<.01   ***p<.005