

# Refugee Flows and the Spread of Civil War<sup>\*</sup>

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## **Abstract**

Certain regions of the world experience more conflict than others. Previous analyses have shown that a civil war in one country significantly increases the likelihood that neighboring states will experience conflict. This finding, however, still remains largely unexplained. We argue that population movements are an important mechanism by which conflict spreads across regions. Refugee flows are not only the consequence of political turmoil; The presence of refugees and displaced populations can also increase the risk of subsequent conflict in host and origin countries. Although the vast majority of refugees never directly engage in violence, refugee flows facilitate the transnational spread of arms, combatants, and ideologies conducive to conflict, they alter the ethnic composition of the state, and they can also exacerbate economic competition. An econometric analysis of civil war since the mid-20th Century confirms the link between refugees and conflict. We demonstrate that the presence of refugees from neighboring countries leads to an increased probability of a state experiencing civil onset. However, political institutions can mediate the effects of migration flows on conflict.

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## INTRODUCTION

Certain regions of the world experience more conflict than others. Regions such as Central America, the Great Lakes region of Africa, and South-East Asia have witnessed numerous civil wars within several states, whereas other areas such as Europe and the Southern Cone of Latin America have had a relatively low frequency of internal conflict. Statistical analyses, moreover, have demonstrated that there is a regional clustering of civil war and that states bordering countries at war are significantly more likely to experience conflict themselves (see Gleditsch 2003b, Gurr and Marshall 2003, Sambanis 2002). The regularity and strength of this geographical clustering casts doubt upon the conventional assumption that civil wars are independent, domestic phenomena, driven exclusively by processes and attributes within the state where conflict occurs. Rather, international factors and relationships with other states may be very important in shaping the risk of internal conflict.

To demonstrate this pattern, figure 1 displays the geographical distribution of the location of intrastate and internationalized intrastate conflicts in the Uppsala conflict data (Gleditsch et al. 2002), as displayed by the ViewConflicts program (Rød 2003). Certain conflict clusters, or locations with a large number of conflicts over the time period, are clearly discernable: for example, Western Africa, the Caucasus, and the Balkans. Studies using other conflict data and measures at the country-level likewise suggest a spatial clustering in civil wars (see, e.g., Ward and Gleditsch 2002).

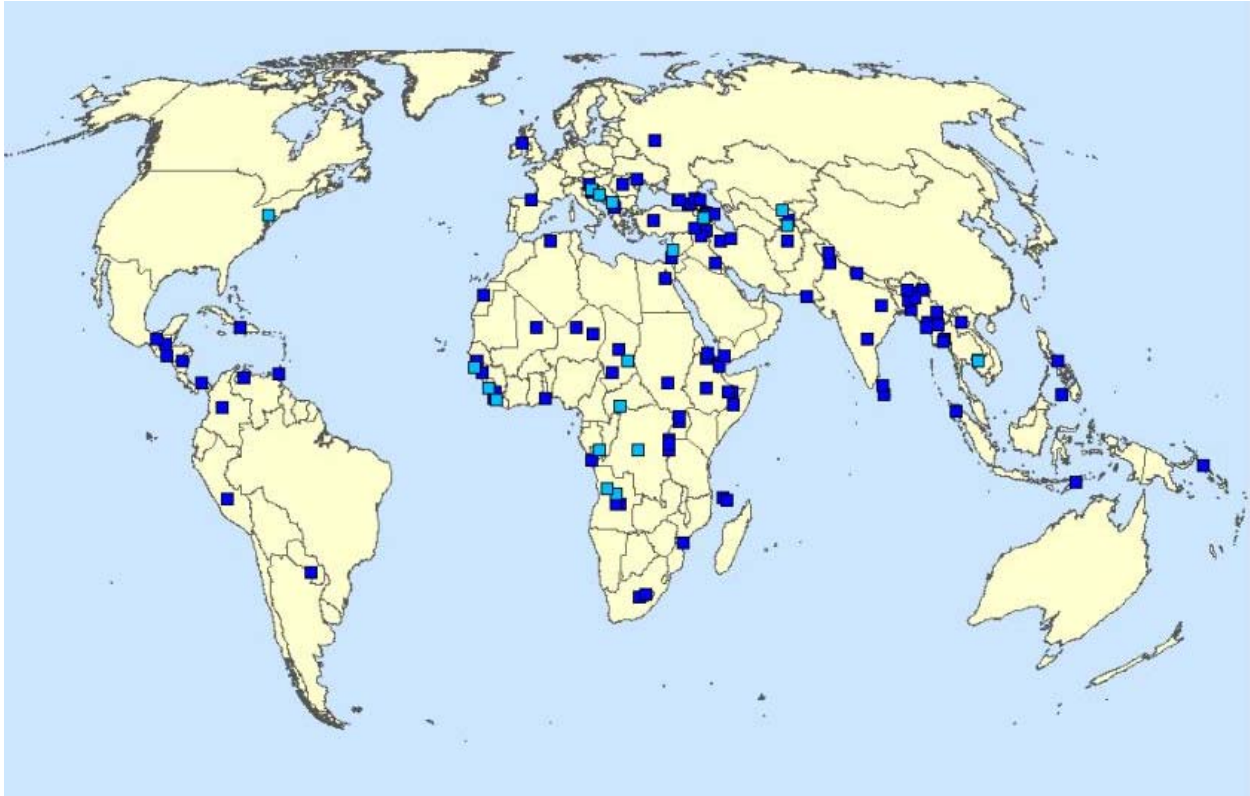


Figure 1: Location of intrastate conflicts (dark blue) and internationalized intrastate conflicts (light blue dots), 1989-2001, Uppsala conflict data. Each dot corresponds to the geographical midpoint of a conflict assigned a unique ID, based on conflict incompatibility. See Gleditsch et al. (2002) for further details on the Uppsala conflict data.

The clustering of war, however, to a large extent remains an empirical finding in search of an explanation. We know that conflicts often spread across national boundaries, but what are the exact causal mechanisms behind the international diffusion of civil war? Previous studies of conflict diffusion have identified several possible explanations. Civil wars may be spatially clustered because the issues and actors engaged in disputes cross transnational boundaries (Gleditsch 2003). Many civil wars involve ethnic groups seeking secession, and transnational ethnic ties may lead actors in one state to act in solidarity with their ethnic kin in another (Davis and Moore 1997, Moore and Davis 1998). Further, through a “demonstration effect,” conflict in one country can lead actors in other states to update their beliefs about the efficacy and desirability of challenging their own government (see Beissinger 2002, Kuran 1998). Moreover,

conflicts may diffuse through a series of externality effects. For example, civil wars in one country may cause a decline in trade and investment throughout the region, which leads to deteriorating economic conditions, in turn leading to conditions making conflict onset more likely (see Collier et al. 2003, Sandler and Murdoch 2004). Civil wars may also invite the international spread of infectious disease and other public health concerns, which similarly lead to a decline in living standards and generalized discontent (see Ghobarah, Huth and Russett 2003). Although we do not discount that these arguments may offer parts of an explanation for the spatial clustering in civil wars, we offer population movements as an additional — and we believe more satisfying — explanation for the international spread of armed conflict.

Most of scholarly literature and public discussion about refugee flows treat population movements as a *consequence* of conflict rather than as a possible *cause* (see, e.g., Azam and Hoeffler 2002, Davenport, Moore and Poe 2003, Schmeidl 1997, Weiner 1996, Zolberg, Suhrke and Aguayo 1989). The few systematic, statistical analyses of refugee flows that have appeared in print (notably Azam and Hoeffler 2002, Davenport et al. 2003, Öberg and Melander 2003, Okamoto and Wilkes 2003, Schmeidl 1997) have confirmed that civil wars, political repression, and regime change, are important predictors of flight. Some authors, however, have noted that international migration in general and refugee migration in particular can have important security *consequences*, which suggest that refugee flows and population movements can spur the spread of conflict both between and within states (see Loescher 1993, Teitelbaum 1984, Weiner 1992-93). Refugees can change the ethnic composition of the host state; exacerbate economic competition; bring with them arms, combatants, and ideologies which are conducive to violence; and mobilize opposition directed at their country of origin as well as their host country. Yet these

arguments, which we explore more fully below, have never been put to a systematic empirical test.

In this paper, we analyze the role of refugee flows in the international spread of civil war. We do so through a statistical analysis of refugees hosted from neighboring countries and civil war onset during the period 1951-2001, while controlling for other neighborhood effects and domestic factors expected to be important. Although other quantitative studies have examined the role of refugee flows on various aspects of conflict, our study is the first to examine the effects of refugees on the likelihood of conflict in refugee-recipient states. Our findings suggest that countries that experience an influx of refugees from neighboring states are significantly more likely to experience civil wars themselves. Thus, population movements are an important factor contributing to the regional clustering of violence and the diffusion of conflict.

Although refugees can promote conflict, we do not wish to detract from the legitimate humanitarian concerns that refugee migration entails. The vast majority of the world's refugees never directly engage in political violence, but are rather the unfortunate victims of it. Nevertheless, this alone should not lead scholars and practitioners to neglect the possible security consequences that often accompany refugee flows. We believe that a better understanding of the circumstances under which refugees can increase the risk of conflict also can help us create better policies for managing the relevant security concerns. As we will discuss in more detail later, we also believe that there are strong theoretical reasons to believe that limiting migration is not an effective option in preventing conflict; rather, restricting exit may in fact exacerbate conflict.

We start by a brief review of the previous research and arguments linking refugees to conflict between and among states. We then discuss the relationship of refugees to the known

geographical clustering and contagion of conflict within states. We outline a research design and data that for testing our hypotheses on the effects of migrants hosted on conflict, and report the results from our empirical analysis. In the final section we summarize our conclusions and discuss some of the broader security implications of refugee flows and what we see as constructive and counterproductive responses.

## **REFUGEE FLOWS AND THE SPREAD OF CONFLICT**

The United Nations Convention Relating to the Status of Refugees defines a refugee as a person who, "...owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his [or her] nationality..." (United Nations High Commissioner for Refugees 1978). A more inclusive and intuitive definition of "refugee" includes anyone who flees their country of origin or residence for fear of politically-motivated harm. This *de facto* definition fits well with the current understanding of refugee movements among non-governmental and intergovernmental organizations as well as in popular discourse (see Zolberg, Suhrke, and Aguayo 1989 for a discussion). Thus, people that flee conditions of general violence such as civil or international wars and the breakdown of political regimes, in addition to those escaping direct government persecution, are considered to be refugees (and, importantly for our study, are counted as such). Not included are those that migrate for purely economic reasons, although we acknowledge that migration decisions are often made for multiple reasons and that political and economic motivations may not be easily separable.

Refugees are usually thought of as victims of political violence—this we do not dispute. Periods of ethnic strife, armed conflict between rival factions, and government purges of political opposition groups, clearly place great burdens on civilian populations. People in these contexts face difficult choices: stay and risk harm, or flee to safety leaving behind one’s property, homeland, and friends and family. Moreover, refugees often live in difficult conditions in their countries of destination, and are frequently dependent on humanitarian assistance.

Many have argued that international migration can also spark conflict. Refugee flows can have important security consequences for sending countries, host countries, and the bilateral relations between the two (see Loescher 1993, Weiner 1992-93). Through the process of being uprooted from their homes and livelihood, refugees have a direct grievance and experience of victimization; furthermore, because of losses suffered, they have low opportunity costs for fighting. To begin with, first, for sending countries, the emigration of people implies that politically relevant populations live outside of the boundaries of the state, where they are beyond the security jurisdiction of the government. In the case of refugees, such emigration can be especially problematic because they are likely to engage in political opposition to their country of origin, including rebellion. Refugee camps, therefore, often provide sanctuary to rebel organizations, a base of operations, and fertile recruitment grounds. These “Refugee Warriors”—politically active communities in exile—such as the PLO in Lebanon and Jordan, Cuban-Americans, and Rwandan Tutsis in Uganda, can be powerful opposition forces to their home governments (see Zolberg, Suhrke, and Aguayo 1989). Importantly, their location outside of the state allows them to escape efforts at repression.

Second, refugee flows may jeopardize bilateral relations between sending and receiving countries (see Weiner 1992). The acceptance of refugees by a government implicates the sending

country in committing human rights abuses and failing to provide security for its people. The sending country is also blamed for placing a refugee burden on the host state. On the other side of the coin, sending countries often accuse host countries of providing sanctuary to their dissidents. Although this can sour relations between governments, accepting the refugees of one's rivals can also be a useful political tool. For example, during the Cold War, the United States and other Western powers regularly accepted those fleeing communist regimes as a way to discredit their rivals and to promote opposition groups in exile (Loescher 1993, Rosenblum and Salehyan 2004).

Finally, refugees can pose a security threat to the host country; this is the focus of this paper. Refugees can raise the probability of conflict in the host society for a number of reasons. First, there is the direct "importation" of combatants, arms, and ideologies from neighboring states that can facilitate the spread of conflict. In some cases, refugees are able set up complex political structures in exile and can challenge the host government directly. For instance, Tutsi refugees from Rwanda (the Banyarwanda) were active in their opposition to the Obote regime in Uganda; there have been periods of open fighting between the Jordanian government and the Palestine Liberation Organization; and a Sri Lankan Tamil refugee was allegedly involved in the assassination of Indian Prime Minister, Rajiv Gandhi. Often, the refugees come into conflict with their host government over their opposition to the home government. The refugees' desire to maintain rebel bases from which to attack their home country may not conform to the host government's foreign policy objectives. Refugees may demand that the host government adopt a hard line against their country of origin. For example, Palestinians in exile strongly opposed the Jordanian-Israeli peace initiatives.



More commonly, refugee populations provide resources and support to domestic opposition groups of a similar ethnic group or political faction. Population movements allow for an exchange of resources and ideas among rebel groups in neighboring countries. Migrants may be responsible for the transfer of arms, which provides domestic groups with the means to fight. Somali refugees, for example, have often worked closely with ethnic Somali separatists in the Ogden region of Ethiopia, providing them with support in their own political efforts. Similarly, Kosovar Albanian migrants in Macedonia fought alongside their ethnic kin in that country.

Second, refugee flows can change the ethnic balance in a country sparking discontent by local populations towards the refugees as well as the government that allows access. Changing demographic patterns due to migration heighten nativist sentiment among local populations and are the impetus for “Sons of the Soil” movements (Weiner 1978). Competition among locals and foreigners of a different ethnicity may lead to conflict, especially if there is a domestic minority of the same ethnic group as the foreign population—the dominance of the majority group is jeopardized. As Michael Brown (1996: 576) writes, “...the sudden influx of refugees can aggravate ethnic problems and further complicate the picture by changing the domestic balance of power.” The arrival of Hutu refugees from Rwanda to Zaire (now the Democratic Republic of Congo), for instance, led to fighting among Tutsis and Hutus in the eastern provinces and to Tutsi mobilization against the Mobutu government. Conflicts in North-Eastern India (i.e., Assam, Tripura, Mizoram, Manipur, and Nagaland) have been fueled by the influx of migrants and refugees from Bangladesh who have displaced the indigenous native population (Ganguly 1996).

Ethnic antagonisms often have economic roots. This brings us to a third reason why migration may lead to conflict. Immigrants and refugees compete with locals over scarce

resources such as employment, housing, land, and water, constituting an economic “threat”. Migrants can depress wages if and when they enter the labor force and lead to an increase in prices as they consume goods, services, housing, etc. (see Borjas 1989). This may lead to a decline in living standards for politically important segments of the population, particularly those who are in greatest competition with immigrants. Such a decline may lead to a setting that invites violence against migration as well as more general dissatisfaction with political and economic conditions.

The main hypothesis we consider in this study is that *the presence of refugees from neighboring countries increases the probability that a country will experience civil war*. Here, a two points of clarification are needed. Although it is possible that the presence of refugees in general raises the probability of conflict, we believe it above all is refugees from neighboring countries that raise the risk of conflict. Refugees from distant countries are less likely to have ethnic kin in the host country. They are also less likely to mobilize militarily, bring in arms, and decrease the costs of mobilizing rebellion in host countries. Accordingly, we do not expect the risk of civil war in the United States to be affected by the influx of refugees from Somalia, but this could increase the risk of civil conflict in Ethiopia. Second, to recapitulate a point made earlier, although we use the term “refugee” out of convenience, we realize that it is only a small subset of the refugee population which may engage in political violence—most refugees are civilians and retain their civilian status.

## **DATA AND RESEARCH DESIGN**

We test our hypotheses on a sample of annual observations for all countries in the world, based on the Gleditsch and Ward (1999) list. This ensures that we do not include small, formally independent states with less than 250,000 inhabitants, which are both unlikely to host significant numbers of refugees and to experience conflict. The availability of data on migration effectively constrains our sample to 1951-2001.

Our conflict data come from the Uppsala Conflict Data set (see Eriksson, Wallensteen and Sollenberg 2003, Gleditsch et al. 2002). These data identify instances of armed conflict involving more than 25 casualties in a given calendar year. We limit our dependent variable to intrastate and internationalized intrastate conflicts where a state experiences conflict on its own territory, as classified by the location variable in the Uppsala data set. Our main dependent variable is conflict onset, which is coded one for the first year of a conflict, and zero if no conflict takes place in the state in that particular year. Subsequent ongoing years of the same conflict are dropped from the estimation sample.<sup>1</sup>

Our main independent variable is the number of refugees that a state receives from neighboring states. To reiterate, our argument does not suggest that conflict is more likely in countries that receive larger number of refugees, irrespective of where they originate. We hypothesize that experiencing refugee inflows from *neighboring* countries will increase the likelihood of a civil war, whereas refugees from more distant countries will not necessarily have an effect on conflict. We must therefore limit our count of refugees to only those originating in neighboring states. We consider two definitions of “neighboring” countries based on Gleditsch

<sup>1</sup> For robustness, we also examined two alternative conflict measures (results not shown). The first is conflict incidence, where we code any year where a state experiences a conflict with more than 25 casualties as a 1. Second, we will also consider a more restrictive conflict measure, which is limited to the onset of civil wars involving more than 1,000 battle deaths in a calendar year, the highest level of hostility in the Uppsala data set. Our results were not substantively different when these changes were made.

and Ward's (2001) minimum distance data. First, we use a restrictive definition in which neighbors are defined by borders falling within a distance of 100km or less (including contiguity). A second, more inclusive definition identifies neighbors as states falling within a 950km span around a given state's boundaries. The first corresponds to what is commonly thought of as immediate neighbors (yet does not exclude states separated by merely short stretches of water, as strict contiguity would entail). The second is more consistent with common definitions of the broader regional environment of a state, without forcing discrete and mutually exclusive classifications of regions based on their proper names (see Gleditsch and Ward 2003, Przeworski and Teune 1970).

Our data on refugee flows come from the Statistical Office of the United Nations High Commission for Refugees (UNHCR). These annual data contain dyadic records of refugee stocks, organized by the origin and asylum countries. Some of the entries in the UNHCR data list refugees as originating in colonies or dependent areas, such as Angola prior to independence, or recognized communities that aspire to independence but are not effectively independent states— notably West Sahara and Palestinians. In these cases, we first consider the location of the territory from which the refugees originating. For colonies or communities within or directly adjacent to the country exercising territorial control, we code the refugees as originating in the recognized nation state exercising control over the territory. In the cases of Palestine and Western Sahara, we thus consider refugees as originating from Morocco and Israel respectively. In cases where refugees originate from overseas colonies or dependent areas that are located at great distances from the country exercising control, we count the refugees among the refugees received for neighboring countries of the dependent area. As such, refugees from Angola in the 1960s are considered refugees from neighbors for Zaire. The UNHCR data only record

population movements of more than 500 individuals, and we recognize that some dyads not in the UNHCR data might have nonzero population movements.<sup>2</sup>

Based on the refugee data with the information on neighborhood relations, our main measure of local refugee movements contains the sum of all refugees from neighboring countries. The number of refugees from neighboring countries has an extremely skewed distribution. The majority of countries host no refugees from neighboring countries, indeed this is the case for almost three quarters of the country-years in our sample. Likewise, disregarding the block of countries not hosting any refugees, the distribution of the actual number of refugees in recipient countries still remains highly skewed with a long right tail. Although most countries where we see refugees from neighboring countries have less than 5000 refugees, some countries such as Congo, Iran, Malawi, Pakistan, Somalia, and Sudan have at various points in time hosted more than 1,000,000 refugees from neighboring states. Although we generally expect that the risk of conflict will increase with the number of refugees, we do not expect a linear relationship between the number of refugees and the risk of conflict. We consider two alternate variables. Our main variable is based on taking the natural log of the number of refugees after adding one to the base. Whereas the raw number of refugees has a long right tail for countries with refugees, the logged number of refugees displays a much less skewed distribution.<sup>3</sup>

A quick cross tabulation of our refugee variable against war onset provides preliminary support for the thesis linking refugees to war onset (see Table 1). Of our country-year observations, 5,482 cases hosted no refugees from neighbors (at the 100km threshold) while

<sup>2</sup> Small refugee flows of less than 500 individuals are unlikely to have much of a result on the analyses. A potentially more worrisome problem is missing data. In particular, some of our assumed 0 flows mask non-recorded large migration flows.

<sup>3</sup> We have also considered a dichotomous variable indicating a “substantial” number of refugees, where we consider countries with more than 10,000 refugees as having substantial presence. Results do not change when this variable is used.

1,508 did. Of the non-refugee observations, 688 (12.5%) experienced a civil war while for refugee hosts, 409 country-years, or 27.1% experienced conflict.<sup>4</sup> Although this suggests a relationship between the two variables, we must consider the role of possible confounding factors to draw any firm conclusions. However, it is clearly also the case that the relationship between refugees and conflict is not a deterministic one. Although civil wars are more common in countries that are refugee recipients, the majority of cases in which a country hosts refugee populations are not violent. We will return to this point in the discussion section, below.

**Table 1: Tabulation between neighboring refugees (refugees>0) and civil conflict.**

Refugees from neighboring states	Civil conflict on a state's territory		Total
	Conflict	No conflict	
Yes	409 (27.12%)	1099 (72.88%)	1,508 (100%)
No	688 (11.67%)	4794 (81.35%)	5,482 (100%)

### *Control Measures*

We have argued that conflict in other states may increase the risk of civil war in one state. Taking into account refugee flows may explain part of this effect, but other attributes of neighboring conflict such as availability of arms, economic externalities, etc. may also have independent effects. Moreover, for our purposes it is essential to control for the effect of presence of conflict in neighboring states to ensure that our findings do not merely reflect other contagion tendencies not taken into account. Accordingly, we use a dichotomous variable

<sup>4</sup> While our full statistical models consider civil war onset only, this tabulation considers all of our country-years without dropping years after onset.

indicating whether there is at least one conflict with more than 25 casualties in a given year in any neighboring country, based on the definitions used for refugees, either 100km or 950km.

The civil war literature has argued that civil wars are less likely in wealthier states. Rich governments have better police, military, more infrastructure, and better administrative capabilities. A high level of wealth may also reduce economic grievances and provide high opportunity costs for fighting. To control for the effect of income, we use the natural log of GDP per capita in 1996 values, based on the expanded GDP per capita data in Gleditsch (2002).

Many have argued that political system influences the risk of civil war. Many researchers have argued that the risk of conflict is highest in anocracies that combine lack of political openness with ineffective repression, and lower in both democracies that allow for non-violent political opposition and autocracies that deter dissent (see, for example, Muller and Weede 1990). This would suggest that the relationship between the likelihood of civil war and the Polity scale should have an inverted U-shaped relationship. Our measure of political institutions is based on the modified Polity 4 data (see Gleditsch 2003a), which contains an institutionalized democracy scale ranging from -10 for the least democratic political systems to value of 10 for democratic polities. The modified version of the Polity 4 data differ from the original Polity 4 data in that they are modified for use with the Gleditsch and Ward (1999) list of independent states, and contain estimates for some countries not in the original Polity data based on the Freedom House data. To control for the inverted U-curve hypothesis, we include a term for a country's Polity score as well as the square of a country's Polity score.

In the original Polity data, a large number of the observations have been assigned special transition codes that fall outside the -10 to 10 scale. The Polity project now recommends that these be converted in a polity score of 0, and this has become common in the literature on civil

war. While we believe this method may be problematic,<sup>5</sup> we ultimately chose to follow this convention to make our results more comparable with other studies.

Ethnic relations are often thought to be important for the risk of civil war, but researchers differ on what type of constellations between ethnic groups are most prone to conflict. Many studies have considered ethnic fragmentation indices, and found somewhat mixed evidence that ethnic heterogeneity is related to conflict. In this study, we will consider a measure of ethnic dominance, or 100 minus the size of the largest ethnic group. We use a data set developed by Vanhanen (1999) to identify ethnic groups. These data distinguishes between the three largest groups in terms of race, religion, and language. Our measure defines majority group size by the maximum of the share of the population for any of the three individual indicators. Higher values indicate a smaller dominant ethnic group.

A separate strain of the civil war literature has emphasized the role of youth bulges, or an unusually high proportion of youths 15-25 relative to the total population. It is often argue that large cohorts of men with limited economic means relative to their aspirations are more likely to participate in armed rebellion and induce political crises that may end in violence (see for example, Goldstone 2001, Huntington 1996, Möller 1968). Controlling for the possible confounding effect of youth bulges on civil war is particularly important for our study, as the effect of youth bulges may be particularly severe when disaffected men compete with migrants. Although Collier and Hoeffler (2001) did not find evidence for the effect of youth bulges using the ratio of young as a percentage of total population, Urdal (2001) demonstrates that this is a

<sup>5</sup> Many of these transition codes occur precisely because countries experience conflict. As a result, we may be more likely to find support for an inverted U-shape in part due to the construction of the measure than a functional relationship between institutions and conflict per se. Comparisons with other data sources such as the Freedom House data suggest that many of these polities are “less democratic” in the sense that we on the basis of other data on democracy would predicted polity scores much lower than 0.



poor measure. The better comparison is between youth and *adult* population. Many states with high fertility rates will also have large numbers of children. Using total population, including children in the denominator, will in this case understate the extent of a bulge relative to the adult population. Urdal shows that a measure using youth population relative to total adult population suggests a strong, positive effect of youth bulges on conflict onset. We use Urdal's youth bulge measure in this paper.

We estimate the probability of conflict onset given the covariates through logistic regression. Our observations are likely to display temporary dependence over time, as conflicts are more likely to recur soon after a previous conflict, and increasing lengths of time at peace may have a self-sustaining effect on decreasing the risk in conflict. We address the potential time dependence by measuring time since last conflict (or initial year of independence, if a country has not experienced conflict). We estimate the effect of the count of peace years on conflict using the non-parametric Beck et al. (1998) method with a cubic smoothing spline with three interior knots. Since we only look at onset and censor ongoing years in this paper, we disregard the possible impact of refugees and migration on conflict escalation or the prospects for peaceful settlements. Although we believe that refugees will generally make it harder to settle conflicts and thus are likely to increase duration, we leave these issues for further research.

Table 1: Estimates of Logit models of probability of conflict onset 1951-2001, low conflict threshold

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Coef. (Std. Err.)	P>z	Coef. (Std. Err.)	P>z	Coef. (Std. Err.)	P>z	Coef. (Std. Err.)	P>z	Coef. (Std. Err.)	P>z	Coef. (Std. Err.)	P>z
Ln # refugees, 100km	--	--	0.051 (0.01)	0.000	--	--	--	--	--	--	--	--
Ln # refugees, 950km	--	--	--	--	0.052 (0.01)	0.000	--	--	--	--	0.050 (0.014)	0.000
Ln # refugees, total	--	--	--	--	--	--	0.058 (0.014)	0.000	--	--	--	--
Ln # ref, non-neighbors	--	--	--	--	--	--	--	--	0.052 (0.041)	0.204	0.025 (0.041)	0.550
Polity	0.010 (0.01)	0.413	0.010 (0.01)	0.381	0.010 (0.01)	0.378	0.01 (0.012)	0.368	0.010 (0.012)	0.406	0.010 (0.012)	0.378
Polity^2	-0.011 (0.00)	0.000	-0.011 (0.00)	0.000	-0.011 (0.00)	0.000	-0.01 (0.002)	0.000	-0.012 (0.002)	0.000	-0.011 (0.002)	0.000
Ln GDP per capita	-0.356 (0.10)	0.000	-0.318 (0.01)	0.001	-0.328 (0.01)	0.001	-0.33 (0.099)	0.001	-0.371 (0.099)	0.000	-0.336 (0.100)	0.001
Ethn. heterogenity	0.015 (0.00)	0.001	0.015 (0.00)	0.001	0.015 (0.00)	0.001	0.01 (0.004)	0.001	0.015 (0.004)	0.001	0.015 (0.005)	0.001
Neighboring civil war	0.582 (0.15)	0.000	0.473 (0.16)	0.002	0.468 (0.16)	0.003	0.45 (0.156)	0.004	0.572 (0.151)	0.000	0.467 (0.155)	0.003
Youthbulge	0.007 (0.02)	0.668	-0.001 (0.02)	0.951	-0.002 (0.02)	0.907	0.00 (0.017)	0.867	0.006 (0.017)	0.700	-0.002 (0.017)	0.902
Peaceyears	-0.602 (0.09)	0.000	-0.592 (0.09)	0.000	-0.594 (0.09)	0.000	-0.59 (0.085)	0.000	-0.599 (0.085)	0.000	-0.592 (0.085)	0.000
Spline 1	-0.015 (0.00)	0.000	-0.015 (0.00)	0.000	-0.015 (0.00)	0.000	-0.02 (0.003)	0.000	-0.015 (0.003)	0.000	-0.015 (0.003)	0.000
Spline 2	0.004 (0.00)	0.000	0.004 (0.00)	0.000	0.004 (0.00)	0.000	0.00 (0.001)	0.000	0.004 (0.001)	0.000	0.004 (0.001)	0.000
Spline 3	0.000 (0.00)	0.281	0.000 (0.00)	0.249	0.000 (0.00)	0.251	0.00 (0.000)	0.257	0.000 (0.000)	0.302	0.000 (0.000)	0.266
Constant	0.748 (1.09)	0.492	0.593 (1.10)	0.589	0.698 (1.09)	0.524	0.73 (1.095)	0.506	0.885 (1.095)	0.419	0.770 (1.101)	0.484
N	5448		5448		5448		5448		5448		5448	
LR Chi	279.74		292.21		292.79		296.13		281.22		293.14	
P> Chi2	0.000		0.000		0.000		0.000		0.000		0.000	
Log Likelihood	-837.968		-831.73467		-831.44164		-829.77464		-837.22921		-831.27026	

## EMPIRICAL RESULTS

In Table 1, we consider the effect of different operationalizations of the main independent variable—the number of refugees a state hosts—on the likelihood of a conflict onset (the first year of an intrastate or internationalized intrastate conflict with >25 casualties). We include the same set of control variables for each model to evaluate our main hypothesis that refugees from neighboring countries have a positive impact on the likelihood of civil war in the host state, but vary the measure of refugees emanating from neighboring states based on classification of refugee countries of origin.

Model 1 in Table 1 considers the baseline model with all the control variables without any variable indicating the number of refugees. These results confirm the tendency for civil wars to cluster, and the positive coefficient estimate for neighboring civil wars indicate that countries neighboring a country that is experiencing a civil war are likely to experience conflict themselves. Indeed, the odds of conflict almost double when at least one neighboring state is involved in a domestic conflict. The other control variables behave largely as expected. Consistent with earlier studies, we find there is an inverted-U relationship between the Polity score and conflict onset. The positive coefficient estimate for Polity and the negative coefficient estimate for Polity<sup>2</sup> suggest that both democracies (high values on the Polity scale) and highly authoritarian governments (low values on the Polity scale) are less likely to experience conflict, although the statistical significance of this finding is not as strong as in related studies. We also find that higher GDP per capita decreases the likelihood of a conflict, whereas greater ethnic heterogeneity increases the risk of conflict. Contrary to expectations, however, we find no

evidence of a youth bulge effect.<sup>6</sup> Finally, we find strong evidence for dependence over time, with higher numbers of peace years decreasing the likelihood of conflict. These results for the baseline model remain consistent throughout the six models.

In Models 2 and 3 we consider two different designations of “neighboring countries.” In Model 2 we use a lower cut-off point and only count refugees originating from countries falling within 100 kilometers of the host state. In Model 3 we extend the definition of neighboring states and include refugees from the wider region—countries within 950 kilometers of the host state. Regardless of which measure is used, we find that the presence of refugees from neighboring countries substantially increases the likelihood of conflict in the host state and judging from the coefficient, the magnitude of the effect is roughly similar across the models. We also find that the coefficient on civil wars in neighboring countries is reduced somewhat in size (i.e., 0.58 in Model 1 versus 0.47 in Models 2 & 3), suggesting that the increase in the odds of conflict from neighboring conflict decreases when we control for the stock of refugees hosted from neighboring states. We interpret this as evidence that hosting refugees from neighboring countries account in part for the observed neighborhood spill over effect or clustering in civil war outbreaks, but that other diffusion or spill over mechanisms not accounted for in our model also appear to operate.

In Model 4, we include all the refugees a country hosts, regardless of the country of origin. We find that this measure similarly has a positive significant effect on conflict, even if they do not originate from neighboring countries. However, even a cursory examination of the data reveals that most refugees in most countries originate from neighbors, and that most countries that receive large amounts of refugees from distant areas also tend to receive refugees

<sup>6</sup> Recall that these results pertain to conflict onset. When we look at conflict incidence, we find more evidence of a relationship between youth bulges and conflict.

from neighbors. Hence, we cannot tell if the estimated relationship is due to the effect of refugees in general or whether it may reflect the impact of local refugees. To discriminate the two, we consider in Model 5 a measure of only refugees that originate from non-neighboring countries, that is, refugees from countries farther than 950km. Although the coefficient estimate remains positive when we remove refugees from neighboring states, the coefficient estimate is no longer statistically significant, even in a one-tailed test at the 0.1 level.<sup>7</sup> Finally, in Model 6 we include both refugees originating from countries within 950km of the host state and refugees from outside of that threshold in the same regression. These results confirm the positive effect of refugees from within the region on the probability of a conflict onset. The measure of refugees from outside of the region, although positive, is not statistically significant, and its estimated size is greatly reduced compared to Model 5. In sum, we confirm our main hypothesis that refugees from neighboring countries have a strong positive effect on the likelihood of conflict onset in the host state. By contrast, and consistent with our argument, refugees from far away location do not exercise a consistent effect on conflict.

We have suggested that political institutions and youth bulges may modify the effect of refugee flows. The evidence for this in the data is somewhat mixed. For neither of the variables do we find evidence of an interactive relationship with the number of refugees. As our youth bulge variable alone did not appear to have a consistent effect on the risk of war we hence find little support for the contention that youth bulges exacerbate the risk of conflict. In the case of political institutions, however, we do not think that the lack of a significant negative interaction

<sup>7</sup> The fact that the coefficient estimate remains relatively large suggests that some countries with large number of refugees from distant locations experience civil war. Looking through the data, however, we find that the positive coefficient seems to be an artifact of certain refugee populations in distant countries experiencing civil war, such as Palestinians in Algeria, Cubans in Spain, and Vietnamese in the Philippines, where we do not consider refugees to be important factors driving the conflicts.

of the number of refugees with a binary democracy indicator should be interpreted to mean that political institutions have no impact on the likelihood of civil war in the context of refugees. Although the predicted effect of refugees may not differ significantly between democracies and non-democracies, the absolute odds of conflict given a particular number of refugees from neighboring countries are much lower in a democratic state than a country with a value of 0 on the polity scale. Moreover, the frequency at which states have many refugees from neighboring countries is higher for countries at the lower values of the Polity scale, and the length of time that a country has remained at peace is generally higher for more democratic states. In this sense, we believe that our results are consistent with refugee flows having less of an impact in democracies. Moreover, we expect that democratization – in particular on a broader regional basis – in the long run will decrease both the risk of civil wars as well as the size of refugee flows.

## **DISCUSSION AND CONCLUSION**

We have shown that refugees from neighboring countries can increase the risk of intrastate conflict. This cannot be attributed to an effect of refugees in general, as only refugees from neighboring states appear to consistently increase the risk of conflict. The effect holds up, even when controlling for the main factors believed to be associated with civil war. Our results suggests that refugee flows are one of the mechanisms underlying the observed diffusion or spill-over effects in civil war outbreaks, although other neighborhood effects appear to be at work as well. Moreover, the positive effect of refugees from neighboring countries is consistent with the

refugee warrior's thesis, and suggests that large populations of displaced populations may create security concerns in the host countries.

We should emphasize again that most cases of refugee flows do not lead to violence (see table 1, above) and that the vast majority of refugees never engage in fighting. We believe that proactive steps taken by host countries in cooperation with agencies such as the UNHCR and humanitarian NGOs to manage refugee camps can reduce possible security risks when they exist. In this regard, the case of Malawi during the 1980's and early 1990's is instructive. Fighting in neighboring Mozambique caused nearly 2 million refugees to escape to Malawi. At one point, refugees constituted 10 percent of Malawi's resident population, placing enormous strains on local resources. Despite its status as one of the poorest countries of the world, NGOs described Malawi's response to the refugee crisis as "heroic" [US Committee for Refugees \, 1989 #2536]. Local integration efforts, access to land and employment, and extensive cooperation with the UNHCR and the World Food Program prevented the spread of conflict from Mozambique. As an example of effective management efforts, the UNHCR reported that 90 percent of the refugees were engaged in some type of productive economic activity such as making crafts, raising livestock, and processing maize (United Nations High Commissioner for Refugees 2000: 113). Further, when the fighting ended, Malawi, Mozambique and the UNHCR cooperated in voluntary repatriation efforts that are considered to be a model in the field of refugee protection. Thus, it is possible for receiving countries to provide humanitarian access and manage potential security risks. Such efforts are clearly not adequately captured by merely looking at regime type scores, and we believe that further research on the governance of refugee communities is warranted.

For developed countries, a policy implication of this study is that generous asylum and refugee resettlement programs can help limit the spread of armed conflict. Third-country resettlement programs can ease the refugee burden on host countries and should be actively pursued as a way to temper security fears when they are great. For example, during the NATO operation in Kosovo, Western European and North American allies agreed to resettle a large number of Kosovo Albanian refugees as a way to relieve the refugee burden and concomitant security risks in Macedonia. Similar efforts elsewhere are likely to be fruitful. Furthermore, fully funding international refugee assistance organizations such as the UNHCR is not merely a humanitarian gesture, but can also serve to foster the better management of refugee camps and reduce security.

The potential security concerns stemming from refugees and immigrants received considerable attention in the wake of 11 September. Although not carried out by refugees per se, the attacks on the World Trade Center and the Pentagon were nonetheless perpetrated by individuals from the Middle East who resided in the USA. This has led to responses along two lines. First, many countries have instituted strong measures to monitor and control refugees and asylum-seekers. Amnesty International has expressed concern that many states have detained individuals with immigrant or refugee background in ways that deny basic human rights, including the presumption of innocence.<sup>8</sup> For instance, the USA's Operation Liberty Shield, implemented in 2003, requires the mandatory detention of asylum applicants from several, predominantly Muslim countries. Second, many countries have taken steps to fortify their borders and prevent access to refugees, to prevent future security concerns that might emanate from refugee populations. Even before 9/11, countries in Western Europe, the U.S. and

<sup>8</sup> For an overview, see Amnesty International's web page monitoring human concerns in responses to terrorism at [http://www.amnestyusa.org/amnestynow/war\\_terrorism.html](http://www.amnestyusa.org/amnestynow/war_terrorism.html).



Australia, have been implementing increasingly restrictive asylum policies and have reduced the number of refugees resettled from overseas camps.

Although we do not wish to take issue per se with states' legitimate concerns over registration of foreign nationals and efforts to prevent unauthorized entry to their territory, we doubt whether more restrictive measures will be effective at limiting the possible security risks associated with migration. Indeed, aside from the issue of whether refugees have a legitimate right to seek protection in other countries, we believe that there are strong reasons to suspect that limiting the ability of refugees to flee from violence and persecution ultimately might be counterproductive, and may unleash even greater security challenges. Many factors producing refugee flows such as violent conflict on a state's territory, human rights violations, and group grievances are not only strong predictors of refugee flows, but can also promote armed conflict and rebellion. Drawing upon Hirschman's (1971) notion of exit, voice, and loyalty as substitutable responses to the same problem, Okamoto and Wilkes (2003) present evidence consistent with substitution between flight and rebellion. Flight provides a safety lid that may prevent further escalation of conflicts. Hence, limiting or increasing the costs of exit options—by sealing international borders, for instance—might make fighting relatively more attractive, and increase conflict in sender countries. There are strong reasons to believe that isolationist strategies will not be effective in producing security or freedom from fear in potential host countries. Preventing exit may exacerbate internal conflicts and increase the number of failed states, which provide terrorists with safe havens and thereby create real security concerns, even for states on the other side of the globe (see, e.g., Rice 2003).

Effective policy measures therefore require states to manage the humanitarian needs of migrants, the potential security risks associated with refugee communities, and must address

issues leading to flight in the first place. Thus, we believe that from a policy standpoint, generous asylum and refugee programs—both in the initial host countries as well as in developed third countries—can limit the spread of armed conflict as well as curtail the escalation of conflict in sending countries.

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