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### Forced Migration Populations and Terrorism

Liam Egan

*CUNY Hunter College*

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Forced Migration Populations and Terrorism

by

Liam Egan

Submitted in partial fulfillment  
of the requirements for the degree of  
Master of Arts Economics, Hunter College  
The City University of New York

2017

Thesis Sponsor:

May 9, 2017

Date

Randall Filer

Signature

May 9, 2017

Date

Karna Basu

Signature of Second Reader

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## **Abstract**

This paper analyzes the relationship between refugee populations per capita and terrorism incidents per capita in a host country. Using data from UNHCR and the Global Terrorism Database (GTD), I conduct cross-national time series poisson and OLS analyses for 164 countries during the years 1992-2013 to explain their relationship. I then control for regional refugee origins to determine if certain refugee populations are more likely to influence terrorism. Finally, I analyze additional variables, including internally displaced persons (IDP) populations, the post-9/11 period, and lagged military spending. Previous literature (Choi and Salehyan, 2013; Choi and Piazza, 2016) has examined models that analyze the relationship between terrorism and refugees or terrorism and internally displaced persons, however, no paper has examined models including both migration populations. Using the existing literature, I add relevant variables to established models to better understand the relationship. The results show that when refugee populations are included in the models, the additional explanatory variables, in particular, internally displaced person populations, may help explain the effects of refugee populations in previous studies.

## **Introduction**

This paper examines the effects of refugee populations per capita on the number of terrorism incidents per capita within host countries and whether certain characteristics of host countries influence the relationship between refugees and terrorism. I use models presented in Choi and Salehyans' "No Good Deed Goes Unpunished: Refugees, Humanitarian Aid, and Terrorism" (2013) and Randahl's "Refugees and Terrorism" (2016) as a baseline for measuring the effects of refugees on terrorism incidents. I add variables for internally displaced persons per capita, autocracy, domestic and neighboring war and conflict, and military spending to the Choi and Salehyan models while adding IDPs per capita, a post-9/11 dummy variable, military spending, and state failure variables to Randahl's models. I also examine the effects of refugees from different regions to determine if region of origin has any significance on terrorism incidents within a host country. Previous literature (Choi and Piazza, 2016) has shown positive and significant relationships between IDPs and terrorism, while shifting policies and focus may have an effect on terrorism in the post-9/11 period. War, conflict, and state failure create spillover effects including generating refugee and IDP populations while military spending may be used to combat terrorism within a host country. The models used in this paper result in similar findings to the previous models. Choi and Salehyans' models show positive and significant relationships between refugee populations per capita while Randahl's models show no significant relationships. The additional variables however, in particular IDP populations, demonstrate significant relationships.

Refugee populations have become a widely-discussed topic in today's geo-political climate. According to the United Nations High Commissioner for Refugees, there were 65.1 million forcibly displaced people, with 21.3 million refugees, worldwide (UNHCR). Wars in

Somalia, Afghanistan, and Syria have resulted in 53% of refugee origins and have brought the consequences of refugee and internally displaced populations to the forefront of the political atmosphere (UNHCR). From security concerns to humanitarian efforts, the implications of refugee crises are significant. Host countries must take the social, economic, and political impacts into consideration when deciding how to deal with a large influx of refugees. In Europe, there is some evidence that large refugee populations have put a strain on host countries. Germany, since the start of the Syrian civil war, has accepted over 200,000 refugees from Syria, along with hundreds of thousands from other countries (UNHCR). This has led to numerous reports of culture-clash between the refugees and citizens of the host countries. The 2015 Paris attacks, amongst other incidents, have sparked debate about the security of borders and whether or not these large refugee populations give rise to terrorism (Bigo et al, 2015).

One theory argues that this culture clash can result in refugee populations feeling alienated and their way of life challenged resulting in disdain for the host country. This in turn results in the radicalization of individuals who then commit terrorist attacks (Sude et al, 2015; Post and Sheffer, 2007). While plausible, it should be noted that the majority of refugee populations are taken in by neighboring countries, where cultures are likely to be similar. For example, Turkey (2,733,655 refugees), Lebanon (1,033,513 refugees) and Jordan (656,400 refugees) share a border with Syria and account for the vast majority of Syrian refugees accepted. Another theory is that terrorist groups use these large migrations as opportunities to slip through the cracks and enter countries with the intent of committing terrorist acts within the host countries (Adamson, 2009). With such large movements of people, many coming from war-torn regions, entering a country, it may be difficult for the appropriate agencies to perform thorough and complete background checks on individuals and to monitor their activities within

the country. Lastly, the hypothesis presented by Choi and Salehyan argues that the presence of refugee populations, and the aid workers they draw, provide “militant groups with opportunities for looting and for attacking foreign targets” stating that “aid supplies have often been subject to looting by militant actors” and “foreign aid workers provide easy targets for terrorists who adopt anti-western ideologies.” (pp. 53, 68).

This paper looks to expand upon previous studies analyzing the relationship between refugees and terrorism. By following the previous methods used by Choi and Salehyan and including additional variables in their models, this paper aims to help provide a clearer picture into what may or may not influence the number of terrorism incidents within a country. This is a complex, global issue that requires an extensive amount of research to be done in order to better understand this relationship.

### **Literature Review**

The post 9/11 period has seen an increase in academic literature analyzing the relationship between migration and security. Migration, the forced migration of refugees, and its links to political violence has been studied extensively. Salehyan and Gleditsch (2006) examined the relationship between refugees from neighboring countries and civil war, where they find “refugee flows are one of the mechanisms driving the observed diffusion or spillover of civil conflict [within host countries].” (p. 360). Salehyan (2008) also finds that “both refugee-sending and refugee-receiving states are more likely to initiate militarized disputes.” (p. 798). Bove and Böhmelt (2016) examine the relationship between immigration and terrorism and find “immigrants are an important vehicle for the diffusion of terrorism from one country to another. At the same time, however, controlling for a series of unit-level variables, fixed effects, and

other influences, our results emphasize that immigration per se is unlikely to affect terrorism.” (p. 584).

Despite these findings, there remains little literature examining the relationship between refugees and terrorism. Ekey (2008) analyzed the effect of refugee populations in a host country and the number of terrorism incidents committed by terrorist groups originating within the host country. She found “an increase in the number of refugees a country hosts leads to an increase in the activities of terrorist groups based in that country.” (p. 27). Milton et al (2013) find that refugees increase transnational terrorism arguing that refugees often find themselves living in poor conditions and treated poorly within host countries. These conditions can lead to increases in transnational terrorism in host countries. Similarly, Choi and Salehyan (2013) examined the link between refugees and terrorism and find that “countries with many refugees are more likely to experience both domestic and international terrorism,” (p. 53) arguing that refugees and humanitarian workers are more likely to be targeted in terrorist attacks. In contrast to Choi and Salehyans’ findings, Randahl’s (2016) results show “no support at all for the hypothesis that refugees would cause an increase in either the incidence or magnitude of terrorism in their host countries.” (p. 51). He argues that by not including conflict and war within a country or within neighboring countries, their impact may be included in refugee populations’ impact on terrorism within a host country, as conflict causes both large refugee populations and terrorism incidents. Choi and Powers (2010) find “although military interventions may increase transnational terrorism by creating target-rich environments for these attacks, by prompting individuals to utilize this tactic for the defense of their homeland, or for grievance-based reasons, the ability of individuals to utilize terrorism during interventions may ultimately depend on the intensity of the intervention in question.” (pp. 28-29) while Salehyan (2008) writes “Domestic strife and civil



war frequently produce large population dislocations and refugee flows across national boundaries.” (p. 787).

These differences in findings could be a result of several factors. Different time frames or methodologies could result in these variations. For example, Choi and Salehyan analyze the relationship between refugees and terrorism using negative binomial regressions with data for 157 countries from 1970-2007 while Randahl uses OLS regressions with fixed effects for 161 countries from 2002-2012. Another possible explanation for the differences could be a result of missing relevant variables that help describe the relationship between refugees and terrorism. To investigate these differences, I follow both methodologies used by Choi and Salehyan and Randahl. I use their established models to attempt to analyze the relationship between refugees and terrorism by adding several variables to each model.

### **Methodology**

This paper follows the methodology established by Choi and Salehyan (2013) and Randahl (2016). I then add additional explanatory variables to help better understand the relationship between refugees and terrorism incidents in host countries. Choi and Salehyan use terrorism data from the GTD while refugee data comes from the *World Refugee Survey* (this paper uses refugee data from UNHCR). The dependent variables for the models this paper looks to analyze include terrorism incidents per capita and casualties per capita that result from terrorism within a host country. The authors use total counts for their models and, as a result, encounter overdispersion and therefore run negative binomial regressions for their models. Converting the variables to per capita measures eliminates this overdispersion and therefore I run cross-national time series poisson regressions with fixed effects for country and year and standard errors clustered by country to compare and contrast the results from different time-

frames. I then add additional variables to control for IDP populations per capita within a country, whether or not conflict or war is occurring within a neighboring country, an autocratic dummy variable, military spending of the host country, and the post 9/11 dummy variable that replaces the post Cold War variable.

Next I use the model and variables proposed by Randahl, who uses data from 2002-2012 for 161 countries. Randahl's paper also uses data from the GTD but uses refugee data from UNHCR. Randahl creates dependent variables using the number of attacks and casualties per million inhabitants. Randahl also creates a variable for refugee populations within host countries, using a number of refugees per 1000 inhabitants variable. This paper however uses the terrorism incidents per capita and casualties per capita variables. Next I compare and contrast the differences in time-frames using cross-country time series OLS regressions with fixed effects for country and year with standard errors clustered by country. I then add variables for IDP population per capita, the state-failure variable proposed by Choi and Salehyan, military spending, and the post-9/11 variable.

## **Data**

The data for terrorism incidents and casualties (total wounded and killed) comes from the Global Terrorism Database (GTD), a dataset compiled by the National Consortium for the Study of Terrorism and Responses to Terrorism (START) at the University of Maryland, which contains information for over 150,000 terrorism incidents worldwide from 1970-2015. The GTD (June 2015) defines terrorism incidents as "the threatened or actual use of illegal force and violence by a non-state actor to attain political, economic, religious, or social goal through fear, coercion, or intimidation." In addition to this definition, the GTD excludes attacks "outside the context of legitimate warfare activities." (pp. 8-9). The GTD codes such incidents as 1 for

doubtful and 0 otherwise. In response to this definition, I exclude incidents coded as doubtful.

While the GTD is the most extensive compilation of terrorism incidents, there are some gaps that arise while using the data. The first is that the data for 1993 is missing; this information was lost prior to START's compilation from multiple collection efforts (GTD Codebook 2015). Another shortfall comes from differences in the collection of terrorism data between 1970-1997 and 1998-present. Data from 1970-1997 was compiled by Pinkerton Global Intelligence Service while post 1997 data is compiled by START. The GTD codebook notes "The GTD now includes incidents of terrorism from 1970 to 2014, however a number of new variables were added to the database beginning with the post-1997 data collection effort. Wherever possible, values for these new variables were retroactively coded for the original incidents, however some of the new variables pertain to details that were not recorded in the first phase of data collection." (p. 4).

Lastly, the data itself presents difficulties. The distinction between state and non-state actors is not always clear and autocratic governments with state-controlled media may suppress the reporting of terrorism incidents. Terrorism is a complex phenomenon with numerous variables influencing its occurrence, so what may be considered terrorism by some may be seen as a different act of political violence to others, making a clear and objective definition difficult to ascertain.

Data on refugee populations per capita and Internally Displaced Persons (IDPs) per capita comes from UNHCR. UNHCR's statistics database contains bilateral information documenting country of residence/asylum, country of origin, and populations of concern from 1951-present. Using this data, I analyze the effects of refugee populations and IDPs on the number of terrorism incidents on countries of residence/asylum. UNHCR defines IDPs as "people or groups of individuals who have been forced to leave their homes or places of habitual residence, in

particular as a result of, or in order to avoid the effects of armed conflict, situations of generalised violence, violations of human rights, or natural or man-made disasters, and who have not crossed an international border.” Previous literature has shown IDPs can increase the number of terrorism incidents within a country. Choi and Piazza (2016) find “countries with larger internally-displaced populations are more prone to suicide terrorist attacks” and that this occurs “because internal displacement increases human rights abuses in countries, thereby fostering an environment in which the displaced are likely to turn to suicide terrorism to settle grievances.” (p. 1028). Therefore, I include internally displaced populations in my analysis.

Following Choi, Salehyan and Randahl, I include variables for democracy, autocracy, and “absent states” which include periods of anarchy, transition, or foreign intervention. I use the Polity IV dataset which codes values of democracy, autocracy, and absent states on a scale from -10 to 10. I create dummy variables for the political states, where 6 and greater is coded as democracy, -6 and less is coded as autocracy. I include an absent state dummy variable for observations coded as interruptions, interregnums/anarchy, and transitions. In addition to these variables, I use Choi and Salehyans’ failed state variable, a scale from 0 to 17 that uses the Political Instability Task Force dataset. The variable combines “the severity of ethnic wars (0-4), revolutionary wars (0-4), adverse regime changes (0-4), and genocides and politicides (0-5).” (p. 58). Several studies have shown that both democracy and autocracy can have effects on lessening the number of terrorism incidents. Choi and Salehyan write “democracy is inversely related to terrorism since democracy provides peaceful channels of conflict resolution” (p. 58) while Randahl writes “autocratic governments are assumed to be able to use harsher methods to repress terrorist groups.” (p. 50) Choi and Salehyan also note that “previous studies find empirical support for the positive relationship between failed states and terrorism. Since the

political leadership of failed states is too weak to exercise legal authority over much of its territory, it is bound to attract a variety of terrorist activity.” (p. 58).

Similar to Randahl’s research, I create dummy variables for conflict or war within a country or within a country sharing a land border using the Uppsala Conflict Data Program (UCDP). UCDP defines conflict as “a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle related deaths in a calendar year.” War is defined similarly with 1,000 deaths as the determining number. Conflict and war are likely to increase refugee populations, particularly in neighboring countries, and increase terrorism incidents. Randahl argues, including these variables “makes it possible to separate the effect that being involved in armed conflict has on terrorism compared to the effect that refugees themselves have on terrorism.” (p. 50). Randahl also notes these variables help control for the spill-over effects from neighboring countries experiencing wars. Previous literature has shown that refugees fleeing from neighboring countries may cause disruptions in host countries. For example, Choi and Salehyan note “the protracted conflict in the Democratic Republic of the Congo was triggered by a large wave of migrants fleeing from violence and instability in Rwanda.” (pp. 53-54).

Logged Population data comes from the World Bank while logged GDP per capita was taken from the United Nations. These variables are logged to account for differences in population. It is likely that a smaller population will be affected by smaller numbers of refugee populations. A larger population makes it more difficult for the government of a country to provide security against terrorist attacks. Choi and Salehyan (2013) write “Since highly populated countries encounter more difficulty providing an adequate level of security to the

entire population, they are at a greater risk of terrorist plots and attacks.” (p. 59). Regarding GDP per capita, Choi and Salehyan state “developed countries are more likely to experience terrorism since they are symbols of the political and economic status quo and because they provide more terrorist targets than less developed countries. Economic success attracts more terrorist attacks because economic inequality is assessed globally in the form of poor versus rich countries.” (p. 59). Contrary to this argument, a higher GDP per capita may indicate more economic opportunities are available within the host country, and the population, including refugees, have more opportunities to prosper, thereby increasing the opportunity cost of committing terrorist acts.

I include the variable for military spending as a percentage of GDP to account for any counterterrorism efforts by host countries. Previous terrorism may influence governments’ decisions on spending to combat terrorism in the current year, therefore I lag this variable. Higher military expenditure allows for more government resources to be used for combating domestic and international terrorism. In countries experiencing conflict or war, higher military expenditure may lead to quicker resolutions of the conflicts/wars, allowing for a quicker return to stability. Alternatively, higher military spending may result in increased terrorism incidents, since rebel fighters may feel unable to fight using guerilla tactics, they may resort to terrorism as another form of fighting. The military expenditure data comes from the World Bank.

Lastly, I include a dummy variable for post 9/11 with the hypothesis that the September 11<sup>th</sup> 2001 terrorist attacks resulted in increased attention towards terrorism, its origins, and how it can be combatted. With the formation of the Department of Homeland Security in the U.S. and similar departments around the world, along with the “War on Terror” efforts to combat terrorism have been revamped in the post 9/11 world. This in turn has had impacts on

immigration, international development, and other areas of international relations. Azam and Thelen (2008) find post 9/11 aid “is used (among other things) as a means to induce local governments to fight terrorism within their sphere of influence and thus protect the political and economic interests of the donors.” (p. 30) while Cornelius (2005) notes legislation in 2004 that hires “2,000 additional Border Patrol agents each year for the next five years, nearly doubling the size of the Border Patrol. The stated rationale for this provision was that would-be terrorists may try to sneak into the country along with unauthorised labour migrants seeking entry along the US-Mexico border.” (pp. 789-790). This rationale, and similar policy initiatives have resulted in an increase in military spending. World Bank data notes, after the end of the Cold War, military spending decreased from a high of 3.42% of world GDP to a low of 2.18% in 2000. From 2000-2009 military spending increased to 2.617% and has since trended downward. The military spending variable attempts to account for this shift in spending from post Cold War to post 9/11.

### **Empirical Results**

Table 1 presents summary statistics for the data variables mentioned in the previous section. Table 2 displays the results of the poisson regressions. Using terrorism incidents per capita as the dependent variable, Model 1, the model presented by Choi and Salehyan, indicates that as refugee population per capita within a host country increases, the number of terrorism incidents per capita increases. These results are significant at the 1% level. The results also show that as the severity of state failure, logged population, and lagged terrorism incidents increase, the number of terrorism incidents per capita increases. These results are significant at 1%. The post 9/11 variable shows a negative and significant relationship at the 10% level. Last, while not significant, the relationships between democracy and logged GDP per capita are negative.

Model 2, where casualties per capita replaces terrorism incidents per capita as the dependent variable, the poisson model shows that as refugees per capita within a host country increases, the number of casualties from terrorism incidents increases as well. This result is also significant at the 1% level. State failure and lagged terrorism remain positive and significant at the 1% level, while the logged population variable shows a positive relationship, significant at 10%. In this model the democracy, logged GDP per capita and post-9/11 variables show negative relationships, however these results are not significant.

Adding regional variables (Model 3) for the percent of refugee population originating from a given region, results in refugee population per capita having a positive and significant relationship at the 5% level. State failure, logged population, and lagged terrorism are positive and significant at the 1% level while democracy and post-9/11 variables are negative and significant at 1%. Logged GDP per capita demonstrates a negative relationship, however this result is not significant. The regional variables show that increases in the percent of refugees originating from the Americas (North, Central, South America and the Caribbean) results in more terrorism incidents per capita. This relationship is significant at the 5% level. Increases in the percent of refugee populations originating from MENA, Africa, East Asia and the Pacific, and Europe and Central Asia result in fewer terrorism incidents per capita while increases in the percent of refugees from South Asia results in more terrorism incidents per capita. These results however are not significant.

Next I analyze the effects of the additional explanatory variables in Model 4. When IDP populations per capita, autocracy, war/conflict within the country and neighbor war/conflict, and military expenditure variables are added, the effect of refugee populations per capita remains significant although at the 5% level for this model. Internally displaced populations per capita



demonstrate a positive and significant relationship at the 10% level. State failure, logged population, domestic war and conflict show positive and significant relationships at the 1% level while lagged terrorism and autocracy are positive and significant at the 10% and 5% levels respectively. Democracy, logged GDP per capita, neighboring war, and military spending show positive, although not significant relationships while neighboring conflict shows a negative and not significant relationship.

When the casualties per capita variable replaces terrorism incidents per capita, Model 5 shows that the relationship between refugee populations per capita in a host country is significant at the 5% level and IDP population per capita shows a positive and significant relationship at the 10% level. State failure, domestic war and conflict show positive and significant relationships at 1%. Post-9/11 shows a negative and significant relationship at 5% while neighboring war shows a positive and significant relationship at 10%. Democracy, logged population, lagged terrorism, and autocracy all show positive relationships while logged GDP per capita, neighboring conflict, and military spending show negative relationships. However, these results are not significant.

When the additional explanatory variables and regional variables are added, Model 6's results show that the relationship between refugee populations per capita and terrorism per capita are positive and significant at the 5% level. IDP populations per capita and terrorism per capita is also positive and significant at 5%. State failure, domestic war and conflict remain positive and significant at the 1% level and logged population and autocracy show positive relationships significant at 5% and 10% respectively. The post-9/11 variable shows a negative and significant relationship at the 1% level. Logged GDP per capita, lagged terrorism, neighboring war, and military spending show positive, although not significant relationships while democracy and neighboring conflict show negative and not significant relationships. The regional variables show

that as the percentage of refugees originating from the Americas increases, the number of terrorism incidents per capita increases, significant at the 5% level. Although the results are not significant, the percentage of the refugee population from MENA and South Asia show positive relationships while Africa, East Asia and the Pacific, and Europe and Central Asia show negative relationships.

Table 3 shows the results for the OLS regressions using Randahl's models. Following Randahl's methods, next I use cross-national time-series OLS regressions to analyze the relationships. Similar to the paper's results, Model 7 shows no significant relationship between refugees per capita and terrorism per capita within a host country. Lagged terrorism is positive and significant at the 1% level. Both domestic and neighboring war and conflict, along with absent state and logged GDP per capita demonstrate positive relationships while democracy and autocracy show negative relationships. These results are not significant however.

Model 8 replaces terrorism incidents per capita with casualties per capita as the dependent variable and shows no significant relationship between refugee population per capita within a host country. The lagged terrorism variable shows a positive relationship significant at the 1% level while war variable is positive and significant at the 5% level. Conflict, Absent state, and logged GDP per capita show positive relationships and neighboring war, neighboring conflict, democracy, and autocracy show negative relationships. These results are not significant.

When the refugee per capita origin variables are added, Model 9 shows a positive, although not significant relationship between refugees per capita and terrorism per capita. Lagged terrorism remains positive and significant at the 1% level. Domestic and neighboring war and conflict, Absent state, and logged GDP per capita are positive although not significant. Democracy and autocracy are negative and not significant. The regional variables show that

increases in the percentage of refugees originating from Africa results in a decrease in the number of terrorism incidents per capita. This relationship is significant at the 10% level.

Refugee populations originating from MENA, Americas, South Asia, and Europe and Central Asia show positive relationships with terrorism incidents per capita while East Asia and the Pacific shows a negative relationship.

Model 10 adds additional explanatory variables and shows that refugees per capita and terrorism per capita have a positive relationship however the result is not significant. IDPs per capita demonstrate a positive and significant relationship at the 5% level. Lagged terrorism, state failure, and logged GDP per capita are positive and significant at the 1%, 5%, and 10% levels respectively. The absent state and post-9/11 variables are negative and significant at 10% and 1%. While the results are not significant, the relationships between terrorism per capita and conflict, neighboring war, autocracy, and military spending are positive while war, neighboring conflict, and democracy show negative relationships.

When casualties per capita replaces terrorism per capita as the dependent variable, Model 11 shows, although positive, the relationships between refugees per capita, IDPs per capita, and terrorism per capita are not significant. Lagged terrorism and state failure variables are positive and significant at the 10% levels while the post-9/11 variable is negative and significant at 10%. War, conflict, neighboring conflict, absent state, and military spending are negative but not significant while neighboring war, democracy, autocracy, and logged GDP per capita are positive although not significant.

Adding the additional explanatory variables and regional variables, Model 12's results show refugee populations per capita demonstrating a positive relationship with terrorism per capita, however these results are not significant. IDPs per capita however, demonstrates a

positive and significant relationship at 5%. Lagged terrorism and state failure remain positive and significant at the 1% level while post-9/11 and absent state show negative and significant relationships at the 10% levels. War, neighboring conflict, and democracy have negative relationships with terrorism per capita while conflict, neighboring war, autocracy, logged GDP per capita, and military spending are positive, although these results are not significant. The regional variables show that as the percentage of refugees originating from the Americas increases, the number of terrorism incidents per capita increases, significant at 5%. MENA, South Asia, and Europe and Central Asia show positive relationships while Africa and East Asia and the Pacific show negative relationships, however these results are not significant.

### **Conclusion**

This paper attempted to add to the existing academic literature analyzing the relationship between refugee populations within a host country and their effects on terrorism within these countries. With a few exceptions, the results mirror those found by previous studies. While any differences in results could be attributed to differences in time-frames, the results for this time-frame show that the addition of the internally displaced population, autocracy, post-9/11, neighboring war or conflict, and military expenditure variables results in the refugee per capita variable remaining significant in Choi and Salehyans' models and no significance in Randahl's models. IDP populations prove to be a contributing variable towards terrorism incidents within a host country when the poisson regressions are used and show significance in several of the OLS models. Like refugee populations, there are several possible theories as to why IDP populations would increase terrorism. Similar to refugees, alienated IDPs, having been forced from their homes, may use terrorism against the responsible parties. Another possible explanation could be

any terrorists within IDP populations would likely have established connections with extremist groups within the host country, allowing terrorist attacks to be carried out.

The poisson regression findings show, similar to Choi and Salehyans' results, state failure, population, and lagged terrorism prove to be strong indicators for present terrorism per capita incidents. The addition of Randahl's proposed domestic war and conflict variables also demonstrate significant relationships with terrorism incidents per capita. In countries experiencing state-failure, war, and/or conflict, terrorism may be a favorable tactic used by rebels to damage opposing forces. Contrary to Choi and Salehyans' findings however, variables like democracy and logged GDP per capita show significant relationships in only a handful of models. The results also show that, while terrorism has been at the forefront of political discussions around the world since 9/11, the post-9/11 period shows a negative relationship with terrorism incidents per capita. This could be a result of shifting focus towards terrorism in the post-9/11 period and the "War on Terror" that occurred in the aftermath of the 9/11 attacks. Changes in foreign aid, support, and international coordination against terrorism may also be influencing factors.

Similar to Randahl's findings, the cross-country time series OLS regressions show no significant relationship between refugees per capita and terrorism incidents per capita. IDPs per capita however show positive and significant relationships in several of the models. Like Choi and Salehyan, the state failure and lagged terrorism variables prove to be positive and significant with terrorism incidents per capita while also showing a negative relationship between the post-9/11 period and terrorism incidents per capita. In both models, military spending shows no significance with terrorism incidents per capita. The addition of the regional variables, although

demonstrating a few significant relationships, show little effect on the number of terrorism incidents per capita.

While the findings of this paper may help describe the relationship between forced migration populations and terrorism, much more research is still needed in order to better understand the impact forced migrant populations have on host countries and the policies needed to ensure the safety of refugees and host country populations. Terrorism is a complex issue with countless causes and any individual actor has their own reasons for carrying out such attacks.

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## Appendix

**Table 1. Summary Statistics**

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	count	mean	sd	min	max	sum
Total Terror	3416	18.80445	97.73559	0	2505	64236
Casualties	3444	116.5064	768.635	0	21338	401248
Refugee Pop.	3577	71114.21	220900.9	0	4150723	2.54e+08
IDP Pop.	3607	51924.71	288936.1	0	6520800	1.87e+08
Population	3608	3.78e+07	1.35e+08	194321	1.36e+09	1.36e+11
GDP per Cap.	3576	9240.151	15099.05	80.44099	113686.4	3.30e+07
Democracy	3541	.5156735	.4998249	0	1	1826
Autocracy	3541	.1618187	.3683364	0	1	573
Absent State	3608	.046286	.210133	0	1	167
State Fail	3545	.5117066	1.470099	0	13.5	1814
War	3608	.0451774	.2077218	0	1	163
Conflict	3608	.1274945	.3335723	0	1	460
Military Spend.	3129	2.321121	2.501224	0	39.60652	7262.787

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**Table 2. Poisson Regressions**

	(1) Terror/Cap	(2) Casualties/Cap	(3) Terror/Cap Regions	(4) Terror/Cap Add.Var	(5) Casualties/Cap Add.Var	(6) Terror/Cap Add.Var Regions
Refugees/Cap <sub>t-1</sub>	18.98*** (3.01)	27.88*** (2.82)	15.89** (2.48)	20.72** (2.16)	33.79** (2.22)	19.84** (2.07)
Democracy <sub>t-1</sub>	-0.214 (-1.00)	-0.263 (-0.78)	-0.503*** (-2.59)	0.0385 (0.23)	0.262 (0.88)	-0.201 (-1.17)
StateFail <sub>t-1</sub>	0.212*** (4.52)	0.272*** (4.37)	0.254*** (4.77)	0.190*** (2.97)	0.162*** (3.66)	0.211*** (3.22)
Ln GDP/Cap <sub>t-1</sub>	-0.109 (-0.42)	-0.260 (-1.18)	-0.158 (-0.69)	0.309 (1.33)	-0.104 (-0.39)	0.141 (0.48)
Ln Pop <sub>t-1</sub>	2.079*** (2.99)	2.312* (1.88)	3.916*** (3.52)	1.630*** (3.63)	0.731 (0.58)	3.052** (2.16)
Post-9/11 <sub>t-1</sub>	-0.357* (-1.94)	-0.157 (-0.43)	-0.483*** (-2.59)	-0.719*** (-3.56)	-0.624** (-2.20)	-0.735*** (-3.38)
Terrorism <sub>t-1</sub>	0.00232*** (6.42)	0.00176*** (3.62)	0.00185*** (6.20)	0.000748* (1.83)	0.000132 (0.29)	0.000579 (1.63)
MENA Pct <sub>t-1</sub>			-0.00159 (-0.23)			0.000163 (0.02)
Africa Pct <sub>t-1</sub>			-0.00750 (-0.95)			-0.00563 (-0.63)
Americas Pct <sub>t-1</sub>			0.00787** (2.39)			0.00604** (2.12)
EAsiaPacific Pct <sub>t-1</sub>			-0.0138 (-1.18)			-0.00950 (-0.82)
SAsia Pct <sub>t-1</sub>			0.00118 (0.15)			0.00318 (0.36)
EurCenAsia Pct <sub>t-1</sub>			-0.00475 (-0.63)			-0.00330 (-0.41)
IDPs/Cap <sub>t-1</sub>				2.936* (1.95)	4.837* (1.65)	3.464** (2.31)
Autocracy <sub>t-1</sub>				0.481** (1.96)	0.455 (1.58)	0.572* (1.83)

War <sub>t-1</sub>				0.721*** (2.92)	0.819*** (3.54)	0.653*** (2.71)
Conflict <sub>t-1</sub>				0.767*** (3.71)	0.892*** (3.75)	0.734*** (3.63)
NeighborWar <sub>t-1</sub>				0.103 (0.59)	0.431* (1.85)	0.0523 (0.27)
NeighborConflict <sub>t-1</sub>				-0.181 (-0.76)	-0.366 (-1.62)	-0.0504 (-0.24)
MilitarySpend <sub>t-1</sub>				0.0556 (0.75)	-0.00659 (-0.12)	0.0442 (0.66)
<i>N</i>	2887	2792	2595	2528	2441	2310
<i>Wald Chi</i> <sup>2</sup>	229.59	325.87	461.19	164.15	389.75	401.85
<i>Prob &gt; Chi</i> <sup>2</sup>	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

*t* statistics in parentheses

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

**Table 3. OLS Regressions**

	(1) Terror	(2) Casualties	(3) Terror Regions	(4) Terror Add.Var	(5) Casualties Add.Var	(6) Terror Add.Var Regions
Refugees/Cap	0.0000181 (1.30)	0.000256 (1.30)	0.0000181 (1.29)	0.0000197 (1.31)	0.000263 (1.22)	0.0000190 (1.25)
War <sub>t-1</sub>	0.00000124 (1.49)	0.0000151** (2.41)	0.00000127 (1.47)	-0.000000569 (-0.75)	-0.000000582 (-0.10)	-0.000000507 (-0.66)
Conflict <sub>t-1</sub>	0.000000183 (0.71)	0.000000842 (0.29)	0.000000179 (0.68)	4.67e-08 (0.24)	-0.000000274 (-0.13)	7.24e-08 (0.38)
NeighborWar <sub>t-1</sub>	4.80e-08 (0.21)	-0.00000202 (-1.03)	4.67e-08 (0.20)	0.000000193 (0.89)	0.000000796 (0.45)	0.000000259 (1.13)
NeighborConflict <sub>t-1</sub>	1.41e-08 (0.11)	-0.00000153 (-1.33)	4.55e-08 (0.41)	-8.34e-08 (-0.68)	-0.00000177 (-1.42)	-6.87e-09 (-0.06)
Democracy	-0.000000419 (-1.19)	-0.00000249 (-0.66)	-0.000000510 (-1.29)	-0.000000167 (-0.85)	2.07e-08 (0.01)	-0.000000259 (-1.27)
Autocracy	-0.000000754 (-1.60)	-0.00000842 (-1.08)	-0.000000579 (-1.12)	0.000000131 (0.83)	0.00000222 (0.74)	0.000000221 (1.01)
AbsentState	0.000000226 (0.41)	0.0000108 (0.91)	0.000000143 (0.21)	-0.000000855* (-1.79)	-0.00000351 (-0.52)	-0.000000987* (-1.68)
Ln GDP/Cap	0.000000110 (0.81)	0.00000206 (1.38)	0.000000155 (0.92)	0.000000230* (1.84)	0.00000184 (1.58)	0.000000185 (1.49)
Terrorism <sub>t-1</sub>	2.45e-08*** (3.41)	0.000000170*** (2.76)	2.41e-08*** (3.27)	1.35e-08*** (3.20)	3.52e-08* (1.90)	1.33e-08*** (3.19)
MENA Pct			8.22e-10 (0.15)			5.47e-09 (0.74)
Africa Pct			-1.04e-08* (-1.67)			-7.06e-09 (-1.01)
Americas Pct			2.45e-09 (0.91)			3.45e-09** (2.23)
EAsiaPacific Pct			-2.84e-09 (-0.58)			-1.50e-09 (-0.33)
SAsia Pct			1.23e-08 (1.51)			1.22e-08 (1.53)

EurCenAsia Pct			1.85e-09 (0.57)			1.64e-09 (0.44)
IDPs/Cap				0.00000652** (2.13)	0.0000960 (1.31)	0.00000683** (2.20)
Post-9/11 <sub>t-1</sub>				-0.00000254*** (-2.75)	-0.00000204* (-1.90)	-0.000000184* (-1.82)
MilitarySpend <sub>t-1</sub>				1.18e-08 (0.24)	-0.000000461 (-1.10)	2.25e-09 (0.05)
StateFail <sub>t-1</sub>				0.000000236** (2.59)	0.00000295* (1.96)	0.000000249*** (2.67)
constant	-0.000000399 (-0.39)	-0.0000134 (-1.13)	-0.000000558 (-0.45)	-0.00000134 (-1.28)	-0.0000108 (-1.32)	-0.00000104 (-1.01)
<i>N</i>	3022	3022	2713	2687	2687	2447
<i>R</i> <sup>2</sup>	0.394	0.309	0.414	0.152	0.073	0.173

*t* statistics in parentheses

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

**Table 4. List of 164 Countries**

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Afghanistan	Croatia	Israel	Nicaragua	Tanzania
Albania	Cuba	Italy	Niger	Thailand
Algeria	Cyprus	Jamaica	Nigeria	Timor-Leste
Angola	Czech Republic	Japan	Norway	Togo
Argentina	Denmark	Jordan	Oman	Trinidad and Tobago
Armenia	Djibouti	Kazakhstan	Pakistan	Tunisia
Australia	Dominican Republic	Kenya	Panama	Turkey
Austria	Ecuador	Korea, Rep.	Papua New Guinea	Turkmenistan
Azerbaijan	Egypt, Arab Rep.	Kuwait	Paraguay	Uganda
Bahrain	El Salvador	Kyrgyz Republic	Peru	Ukraine
Bangladesh	Eritrea	Lao PDR	Philippines	UAE
Belarus	Estonia	Latvia	Poland	United Kingdom
Belgium	Ethiopia	Lebanon	Portugal	United States
Belize	Fiji	Lesotho	Qatar	Uruguay
Benin	Finland	Liberia	Romania	Uzbekistan
Bolivia	France	Libya	Russian	Venezuela,RB
Bosnia and Herzegovina	Gabon	Lithuania	Rwanda	Vietnam
Botswana	Gambia, The	Luxembourg	Saudi Arabia	Yemen, Rep.
Brazil	Georgia	Macao	Senegal	Zambia
Bulgaria	Germany	Macedonia	Sierra Leone	Zimbabwe
Burkina Faso	Ghana	Madagascar	Singapore	
Burundi	Greece	Malawi	Slovak Republic	
Cabo Verde	Guatemala	Malaysia	Slovenia	
Cambodia	Guinea	Mali	Solomon Islands	
Cameroon	Guinea-Bissau	Malta	Somalia	
Canada	Guyana	Mauritania	South Africa	
Central African Rep.	Haiti	Mauritius	South Sudan	
Chad	Honduras	Mexico	Spain	
Chile	Hong Kong	Moldova	Sri Lanka	
China	Hungary	Mongolia	Sudan	
Colombia	Iceland	Morocco	Suriname	
Comoros	India	Mozambique	Swaziland	
Congo, Dem. Rep.	Indonesia	Namibia	Sweden	
Congo, Rep.	Iran	Nepal	Switzerland	
Costa Rica	Iraq	Netherlands	Syrian Arab Rep.	
Cote d'Ivoire	Ireland	New Zealand	Tajikistan	

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