

**Non-Published Appendix for:**

**The Nonlinear Relationship Between Terrorism and Poverty**

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**Table A1:** Alphabetical List of Countries Used in the Study

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

## Variables Used the Analysis

All variables are country averages using as many years as possible over the 1998 – 2007 period. Panel methods are generally deemed inappropriate for our data since the dependent variable is a count. A small change (say from zero incidents to one incident) represents a large change in the number of incidents for most of the countries in our sample. Given that the within-country changes in the explanatory variables, such as real per capita GDP, tend to be small, the signal to noise ratio is too small to use panel methods.

**Domestic Terrorism:** The number of domestic terrorist incidents within a country over the 1998 – 2007 period. The data are from the ESG data set. We use only incidents with at least one death. For all domestic incidents, the nationalities of the perpetrators and victims match the location of the incident.

**Transnational Terrorism:** The number of transnational terrorist incidents within a country over the 1998 – 2007 period. The data are from the ESG data set. We use only incidents with at least one death. For all transnational incidents, the location, nationalities of the perpetrators and nationalities of the victims are not all the same.

**Freedom House and Polity:** Respectively, the Freedom House and Polity measures of political freedom. We transform the variables as in ESG. The first corresponds to the Freedom House measure of political rights and civil liberties for 2007. If the sum of their two indices is less than or equal to 5, the country is deemed to have a high degree of political freedom. As such, we set the dummy variable *F. HOUSE* equal to one; otherwise, we set the dummy variable equal to zero. Our *POLITY* measure is a dummy variable equal to zero if the overall *POLITY* score is less than 7 and equal to unity otherwise.

**Rule of Law and Corruption:** Kaufman et al (2008) index varies between –2.5 and 2.5, in which greater values indicate better observance of the law. Corruption varies between –2.5 and 2.5, with higher values indicating less corruption.

see: Kaufmann, D., Kraay, A., & Mastruzzi, M. (2008). *Governance matters VII: Aggregate and individual governance indicators, 1996–2008*. World Bank Policy Research Working Paper, June 2009. Washington, DC: World Bank. <http://www.govindicators.org/>. Accessed: 6/20/2010.

The remaining variables are from the World Bank's *World Development Indicators*. Annual values are averaged over the 1998 – 2007 period. Not all years were available for some countries. In such circumstances, we averaged all available years.

**lgdp<sub>i</sub>:** The natural logarithm of real per capita GDP in country *i*. (constant 2000 U.S/ dollars). Some values that were missing in *World Development Indicators* were obtained from the CD ROM of the International Monetary Fund's *International Financial Statistics*.

**lpop<sub>i</sub>:** The natural logarithm population in country *i*.

**Unemployment** : The overall unemployment rate in country  $i$  (percent of total labor force)

**Education**: World Banks' measure of the number of individuals receiving secondary education.  
(Indicator code: SE.SEC.ENRL)

**Gini Coefficient**: The Gini coefficient. Large values reflect income inequality. (Indicator code: SI.POV.GINI).

**Table A2.** Contingency Tables for Various Cutoff Values

Similar  $\chi^2$  calculations for the domestic and transnational incidents for other cutoff values are:

Cutoff Value	Domestic		Transnational	
	<u>Lowest Incomes</u>	<u>Highest Incomes</u>	<u>Lowest Incomes</u>	<u>Highest Incomes</u>
< 2	52	63	67	67
>= 2	45	12	30	8
	$\chi^2 = 17.63 (0.000)$		$\chi^2 = 10.09 (0.001)$	
< 5	64	67	81	69
>= 5	33	8	16	6
	$\chi^2 = 12.71 (0.000)$		$\chi^2 = 2.73 (0.098)$	
< 10	75	70	86	72
>= 10	22	5	11	3
	$\chi^2 = 8.19 (0.004)$		$\chi^2 = 3.04 (0.081)$	

Note: Cell entries are the number of countries in the associated income group satisfying the inequality implied by the cutoff value,  $\chi^2$  is the sample value of the chi-square statistic and the entries in parenthesis are the *prob*-value of  $\chi^2$ .

Clearly, there is strong evidence that domestic terrorism is heavily concentrated in the lowest two income groups. For all three cutoff values, the null hypothesis of no difference between the income groups is rejected at conventional significance levels. The evidence is less strong for transnational terrorism. Countries with 2 or more transnational incidents tend to be the low income countries ( $\chi^2$  is 10.09 with a *prob*-value of 0.001). However, for the other cutoffs values shown in the table, at the 5% significance level, we cannot reject the null hypothesis that the distribution of transnational incidents depends is invariant to income. Although it could be that low- and high-income behave similarly regarding transnational incidents, very few countries experienced more than 5 incidents so that the distribution is thin for high cutoff values.

**Table A3:** Correlation Matrix of the Variables:

	Gini Coeff.	Freedom House	Polity	Rule of Law	Corrupt.	Unemp.	Educat.	<i>lgdp</i>
Gini Coeff.	1.00							
Freedom House	-0.11	1.00						
Polity	0.13	0.71	1.00					
Rule of Law	-0.28	0.44	0.27	1.00				
Corruption	-0.07	0.67	0.52	0.64	1.00			
Unemployment	0.07	-0.03	-0.01	-0.15	-0.03	1.00		
Education	0.00	0.00	-0.04	0.01	-0.04	-0.13	1.00	
<i>lgdp</i>	-0.23	0.60	0.48	0.71	0.61	-0.09	-0.03	1.00
<i>lpop</i>	-0.04	-0.08	-0.08	-0.13	-0.12	-0.24	0.60	-0.09