

# Organizations and the Choices of Terror

## **A START Research Program**

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# Organizations and the Choice of Terror

- Why do some organizations decide to use terrorism as a strategy?
  - Minorities at Risk Organizational Behavior (MAROB) Project
- Once an organization has chosen to use terrorism, what factors account for tactical or strategic choices?
  - Big Allied and Dangerous (BAD) Project

# Our Definition of Terrorism

- A terrorist act is an act of violence with a societal goal that intentionally targets civilians
- An organization is considered “terrorist” if it regularly commits terrorist acts

# Why Use Minorities at Risk Organizational Behavior (MAROB)?

- MAROB database allows us to ask which organizational features make it more likely that an *organization* will choose terrorism
- Flexibility of MAROB data:
  - Organizations for local minorities (e.g. Chechens in Russia)
  - Organizations for transnational minorities (e.g. Kurds)
  - Organizations in one multi-ethnic country (e.g. Lebanon)
  - Organizations in a region (e.g. Middle East)

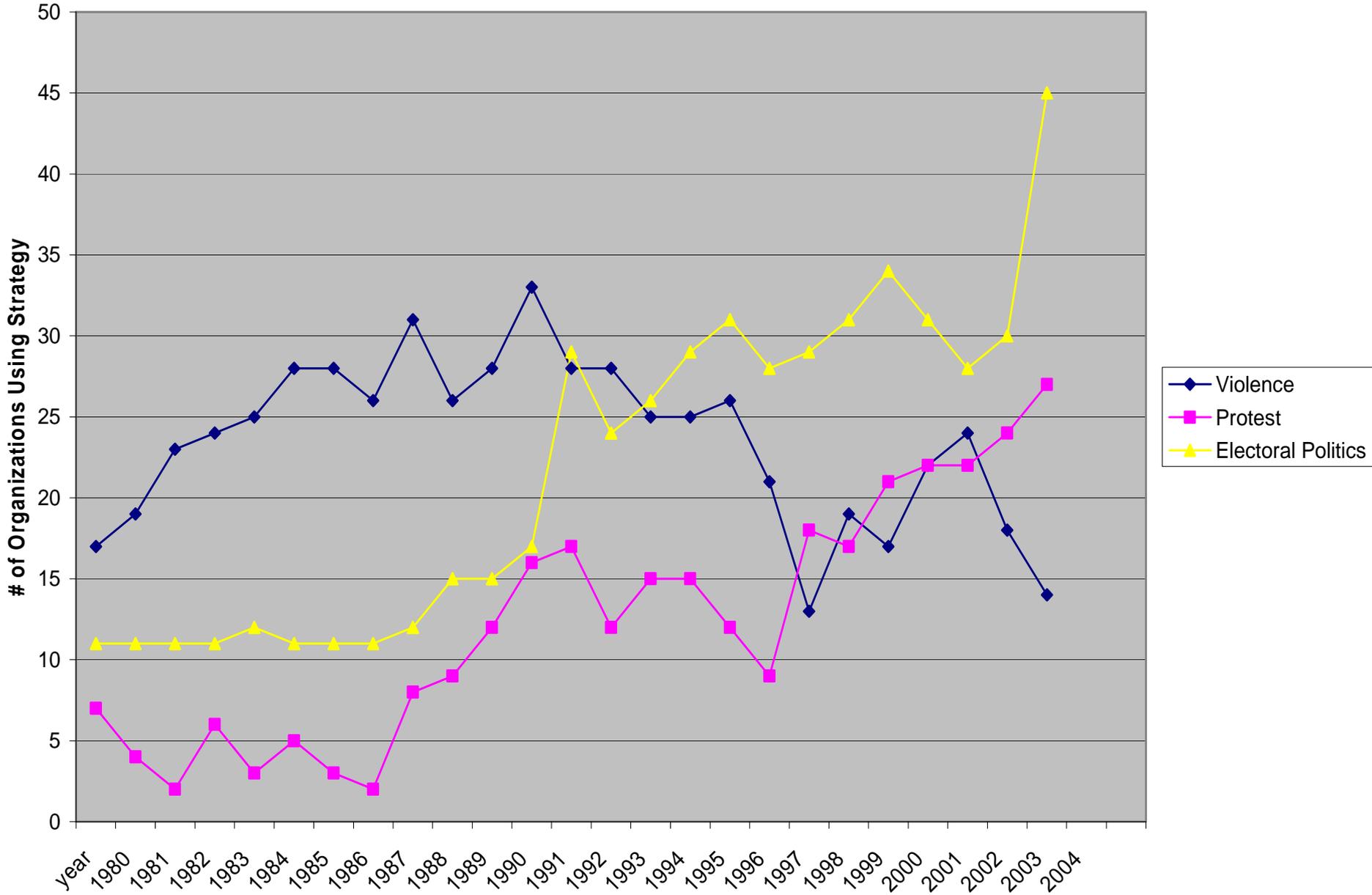
# MAROB Middle East

- Currently the MAROB database includes data on 114 organizations for the 29 MAR groups in the Middle East and North Africa, operating between 1980 and 2004
- Identification and coding of Minority at Risk organizations for the remaining regions of the world is planned

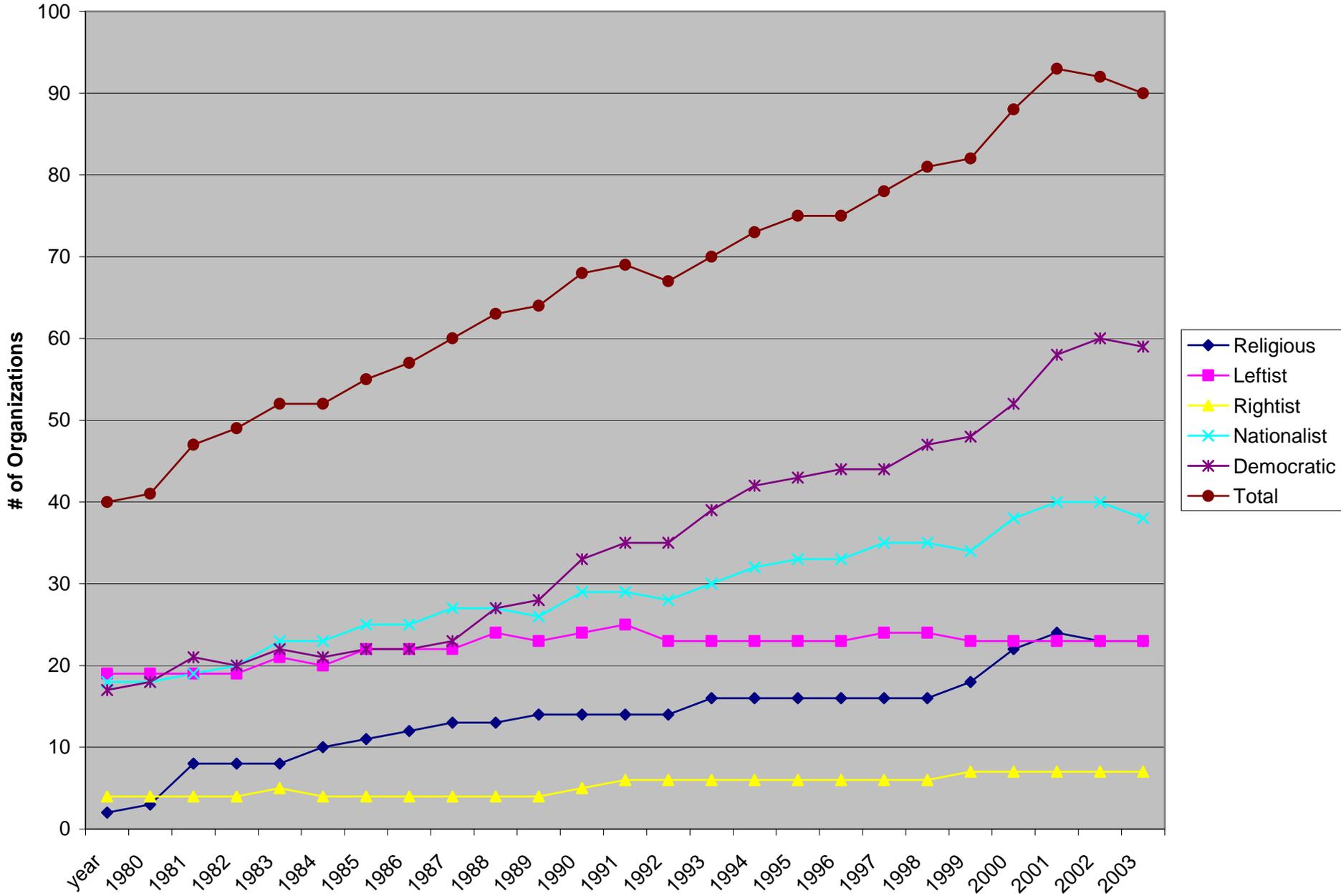
# Why might organizations embrace violence or terrorism – or not?

- Ideology
- Rhetorical commitments
- Relations with government
- Power and capability

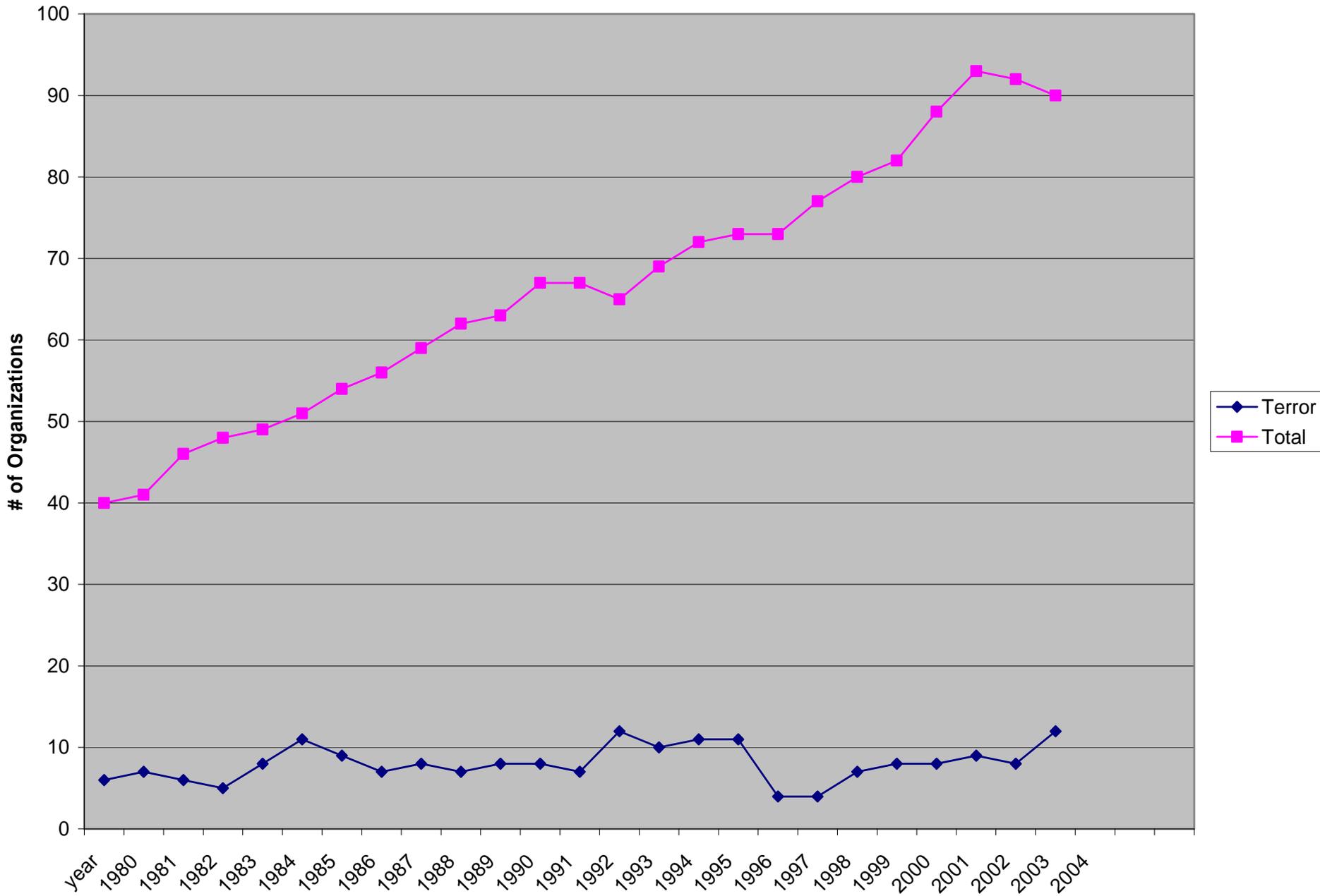
# Strategies of Minorities At Risk Organizations 1980-2004



# Shifts in Ideology of Ethnopolitical Organizations



# The Use of Terror by Organizations 1980-2004



# Time Series Analysis of factors predicting Terrorism

*XTGEE Model*

<b>Red= (-) Likelihood</b>	<b>The Middle East as a whole</b>	<b>Iraq</b>	<b>Lebanon</b>	<b>Palestinian</b>
<b>Green = (+) Likelihood</b>				
<b>Grey= No Impact</b>				
Democratic Ideology	Red	Grey	Green	Grey
Religious Ideology	Green	Grey	Grey	Grey
Separation or Revanchist	Green	Grey	Green	Green
Government Repression	Green	Grey	Green	Green
Foreign Support	Green	Grey	Green	Green
Violent Rhetoric	Green	Green	Grey	Green
Criminal Activities	Green	Green	Grey	Grey
Organizational Popularity	Grey	Grey	Grey	Green
Deal with Government	Grey	Red	Green	Red

# The Choice of Terror

- Varying importance of...
  - Government policy
  - Group capabilities
  - Ideology
  - Rhetoric
- No single story explains the choice of terrorism
  - Context matters
- Need to expand...
  - Geographical scope
  - Type of organizations – Religious organizations

# Big Allied and Dangerous

- Dangerous
  - Lethal
  - Pursued CBRN
  - Targeted the US
- Use MIPT data 1998-2005 combined with data gathered by START researchers
- How do organizational characteristics of terrorist groups impact the...
  - Likelihood that they will kill
  - Likelihood that they will kill prolifically
  - Likelihood that they will target the US

# Overview

- As predictors of behavior, we examine the role of organizational characteristics such as:
  - Ideology
  - Size
  - Age
  - State sponsorship
  - Alliance connections

# Why are some terrorist organizations so much more deadly than others?

- Of the **395** terrorists organizations we were able to clearly identify operating world-wide from 1998 to 2005...
  - **68** have killed ten or more people during that period (MIPT 2006)
  - **Only 28** have killed more than 100 people
- What factors can account for this dramatic difference in organizational lethality?



# Killing or not killing

Factors that make it more likely an organization **WILL USE** lethal violence:

- Ideology
  - Religious Ideology
  - Ethnonationalist + Religious Ideology
- Capability
  - Size
  - State Sponsorship

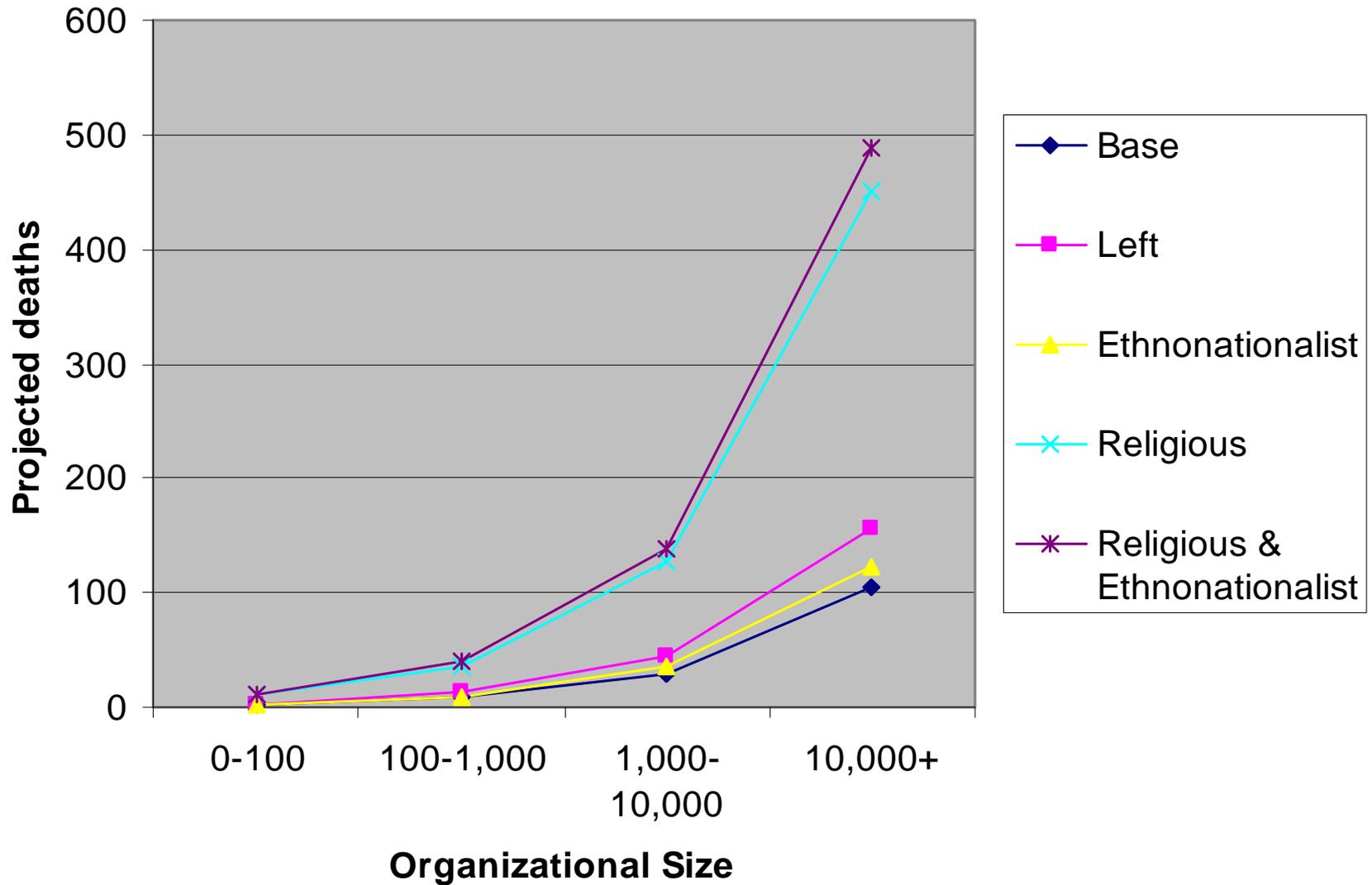
Factors that make it likely an organization will **NOT USE** lethal violence:

- Ideology
  - Environmental
  - Anarchist
  - Leftist – not mixed with religion or ethnonationalism
- Capability
  - Dilettantes
  - Small
  - Young

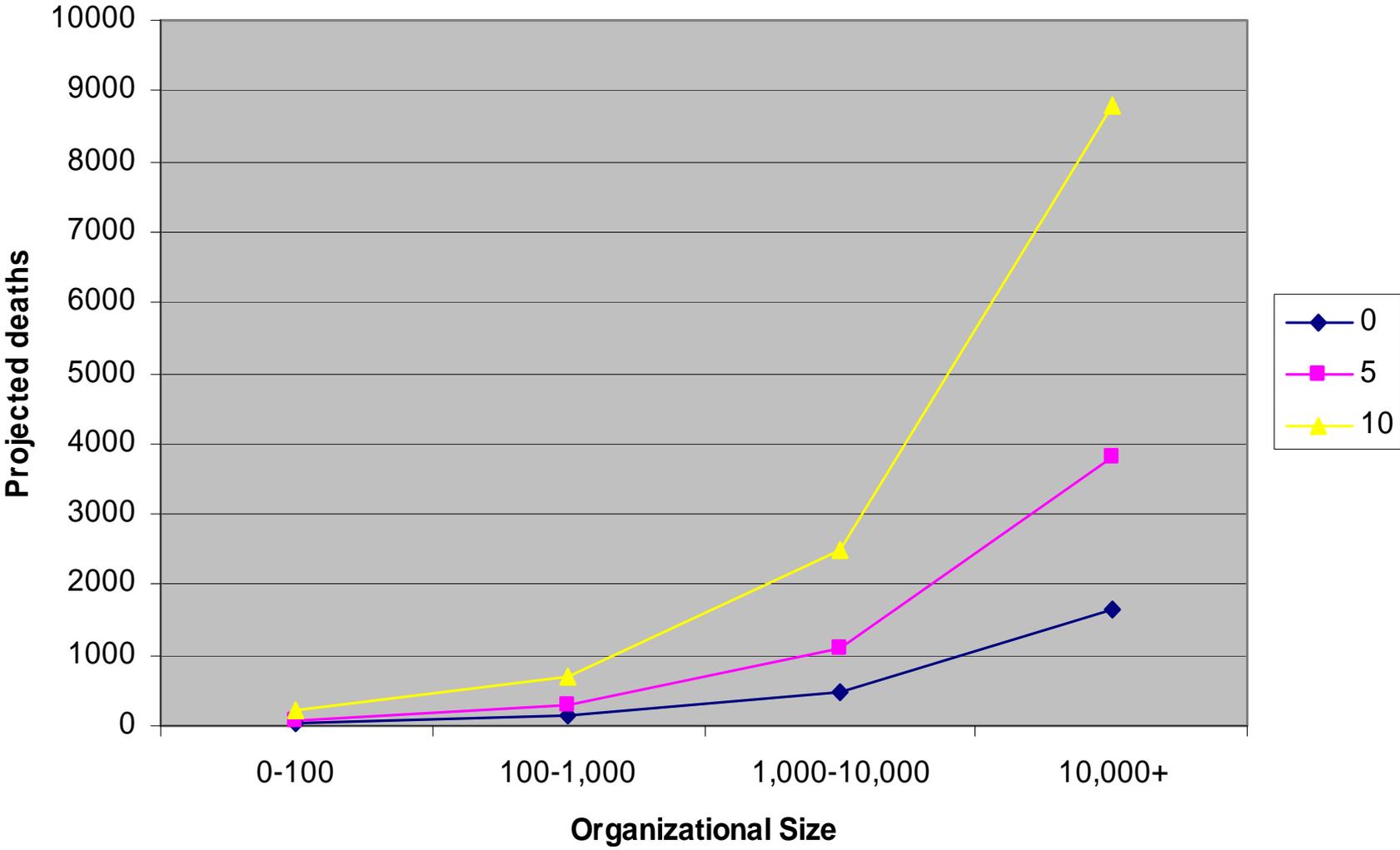
# Killing Prolifically

- **What Matters:**
  - Size
  - Religious ideology
  - Ethnonationalist & religious ideology
  - Organizational connections
- **What does not:**
  - Ethnonationalist ideology by itself
  - Leftist ideology
  - Democracy of host state
  - Organizational age
  - Energy consumption per capita of host state
  - State sponsorship

**Figure 1: Lethality by Ideology & Size**



**Figure 3: Lethality by Size and Connections:  
Religious & Ethnonationalist Organizations**



# Who targets American Interests?

## **HAVING AN EFFECT:**

- Log of US exports (low levels)
- Network connections
- US Troops stationed (over 1000) in an undemocratic country
- Anti-globalization ideology

## **NOT HAVING AN EFFECT:**

- Islamic ideology
- Organizational size
- Organizational age
- Host country democracy
- State sponsorship

# Probability of Attacking US interests

*(Logit of attacking US interests 1998-2005 using low-confidence size control)*

	Log of US exports	US troops & not democracy	Network connections	Anti-globalization ideology
Min value	0.230	0.037	0.039	0.050
Max value	0.021	0.399	0.968 (0.651 w/o Al Qaeda)	0.145

# Appendix

# Data

- MIPT's Terrorism Knowledge Base (TKB) 1998-2005
- 499 organizations, of which were able to code 395 to varying extents
- Extra coding done for missing data on size and ideology
- 72.1% of the incidents, 46.7% of the injuries, and 47.5% of the fatalities have not been claimed – so not covered in our analysis
  - Some “unclaimed” are perpetrated by entities that are not sufficiently coherent to call “organizations”
  - Other are perpetrated by religious organizations, which often eschew credit-claiming

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xtgee terror demorg      relorg liber      stor      forstsup violrhetdo      crime c
family(binomial) link(logit) corr(ar1) robust force i(orgid) t(year)

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GEE population-averaged model      Number of obs      =      1388
Group and time vars:      orgid year      Number of groups      =      102
Link:      logit      Obs per group: min =      2
Family:      binomial      avg =      13.6
Correlation:      AR(1)      max =      25
Wald chi2(9) =      108.07
Scale parameter:      1      Prob > chi2 =      0.0000

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(Std. Err. adjusted for clustering on orgid)

	Semi-robust					
<u>terrorBI</u>	<u>Coef.</u>	Std. Err.	z	P> z	[95% Conf. Interval]	
demorg	- .5813688	.3375404	-1.72	0.085	-1.242935	.0801983
relorg	.7772009	.4066254	1.91	0.056	-.0197702	1.574172
liberation~s	1.137016	.3694073	3.08	0.002	.4129908	1.861041
storgrepress	.2321033	.1067159	2.17	0.030	.0229439	.4412626
forstsup	.7961996	.2914212	2.73	0.006	.2250246	1.367375
violrhetdom	.3967335	.0621682	6.38	0.000	.2748861	.5185809
crime	.9672644	.5021442	1.93	0.054	-.0169202	1.951449
orgpop	.1072621	.3978374	0.27	0.787	-.672485	.8870092
agreement	-.2914763	.4454213	-0.65	0.513	-1.164486	.5815334
_cons	-3.567608	.8774854	-4.07	0.000	-5.287447	-1.847768

# Table 2: Dummy Variables for Ideology

<b>Variables</b>	<b>Description</b>	<b>N</b>
Religious ideology	1 if the organization's ideology was religious in any of its component parts but was not ethnonationalist in any component;	54
Ethnonationalist ideology	1 if the organization's ideology was ethnonationalist in any of its components but was not religious in any component;	91
Ethnonationalist & religious ideology	1 if the organization's ideology was both religious and ethnonationalist in its components.	62
Leftist ideology	1 if the organization's ideology was leftist but not religious or ethnonationalist in any component;	94
Base	1 if the organization does not fall into any of the other categories	94

# Table 4: Size of Organizational Membership

Size intervals	Code	N
0-100 & low confidence	0	261 77: low-confident 184: 0-100
100-1000	1	74
1000-10,000	2	45
10,000 or more	3	12

# Network Relations

- To capture the effect of organizational alliances, we coded TKB's 22-code "related groups" system into six codes that ranged from "target" to "affiliated wing." We then used UCINET 6 (Borgatti, Everett, and Freeman 2002) to count the number of "positive" (i.e., suspected alliance, alliance & rivalry, confirmed alliance, and familial) relationships each organization has (in social network parlance, we calculated the organization's positive simple degree).

# Method

- Given that the dependent variable is a count of a rare event – deaths from a terrorist attack – the hypotheses are best tested using a count model.
- Poisson regression is inappropriate due to
  - overdispersion of the dependent variable (as evidenced by the standard deviation of the dependent variable being greater than the mean) and
  - the presence of a large number of zeros in the dependent variable (Long and Freese 2003; Long 1997; Cameron and Trivedi 1998).
- A more appropriate model is the zero-inflated negative binomial (ZINB), which can account for both the overdispersion and presence of zeros.

# Method II

- The ZINB model incorporates a two-step decision process into the model assumptions. The decision whether not to kill is separate from the decision regarding how many people to kill.
- **The ZINB allows for the possibility that zeros in the model are present because groups have chosen not to kill or because they have so far been incapable of executing a fatal attack.** Throughout we refer to “the decision not to kill” because ZINB models the zeros in the data – those organizations that choose not to kill.
- We **model exposure in our data** using a natural log measure of years that the organization existed between 1998 and 2005
- Because terrorist organizations are often based in the same country, we could not assume that all observations were independent of one another. To account for this, **we adjusted the standard errors for country-level clustering**

# ZINB Results for 1998-2005 Total Fatalities

	With Al Qaeda		Without Al Qaeda	
Count Model	All	High Conf	All	High Conf
Size (ordinal)	1.258*** 0.190	1.150*** 0.234	1.238*** 0.205	1.131*** 0.241
Religious ideology	1.453** 0.542	1.786* 0.722	1.436** 0.537	1.770* 0.729
Ethnonationalist ideology	0.160 0.479	0.208 0.538	0.156 0.485	0.202 0.540
Ethnonationalist & religious ideology	1.534** 0.571	1.540* 0.765	1.477* 0.593	1.498† 0.816
Leftist ideology	0.397 0.481	0.406 0.597	0.363 0.490	0.382 0.607
POLITY2	0.002 0.019	0.008 0.033	0.002 0.020	0.008 0.034
Organizational age	-0.018 0.039	0.014 0.031	-0.016 0.038	0.014 0.032
Organizational age squared	0.00007 0.0006	0.00004 0.0006	-0.0003 0.0004	-0.0004 0.0004
Count, organizational connections	0.167* 0.079	0.138** 0.051	0.200* 0.088	0.169* 0.074
Energy consumption per capita	0.081 0.097	0.063 0.119	0.077 0.099	0.061 0.128
State sponsorship	0.109 0.416	0.074 0.490	0.098 0.423	0.056 0.499
Log exposure	0.303 0.486	-0.327 0.429	0.302 0.494	-0.275 0.475
Constant	0.114 0.779	1.134 0.881	0.099 0.797	1.03 0.959

† p = 0.066

# ZINB Results for Zero Inflation Model for any Lethality

Size (ordinal)	-3.759* 1.765	-3.668** 1.064	-3.748* 1.782	-3.692** 1.095
Religious ideology	-25.996*** 5.335	-4.806 3.634	-23.55*** 5.445	-4.784 3.831
Ethnonationalist ideology	-3.837 2.986	-1.428 1.265	-3.836 3.103	-1.45 1.276
Ethnonationalist & religious ideology	-7.011** 2.433	-4.847 3.095	-7.158** 2.715	-4.837 3.263
Leftist ideology	3.976 3.298	2.194 1.266	3.912 3.27	2.21 1.395
POLITY2	0.711 0.557	-0.100 0.114	0.695 0.560	-0.098 0.120
Organizational age	0.273 0.617	0.210 0.447	0.271 0.641	0.219 0.494
Organizational age squared	-0.017 0.016	-0.011 0.014	-0.017 0.017	-0.012 0.017
Count, organizational connections	-0.283 0.374	-0.053 0.282	-0.267 0.374	-0.039 0.312
Energy consumption per capita	1.133 0.847	0.518 0.300	1.126 0.869	0.518 0.326
State sponsorship	-26.462*** 3.300	-20.282*** 1.618	-22.533*** 3.315	-18.575*** 1.634
Log exposure	-2.952 2.754	-3.219 1.823	-2.903 2.713	-3.239 1.813
Constant	-3.149 3.785	5.762 2.756	-3.069 3.855	5.725 2.883

## ZINB Results for Lethality – Model Diagnostics

Log(alpha)	1.462*** 0.038	1.295*** 0.045	1.466*** 0.04	1.302*** 0.045
Vuong	5.68***	4.44***	5.71***	4.48***
N	395	318	394	317
Zeros	240	187	240	187
Non-zero	155	131	154	130
LR chi2	111.11	82.6	87.41	60.69
Log-likelihood	-803.48	-685.243	-793.056	-675.041
Clusters	65	56	65	56