

Understanding Trends in Global Terrorism

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An exploratory investigation

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Introduction

- Terrorism coverage in the United States
- Method of attack trends
- Terrorism trends over time
- Success rates of terrorist attacks

Method

- Global Terrorism Database (GTD) (START) including over 150,000 failed and successful attacks from around the world between 1970 and 2015
- New York Time archive for relationship between events and media coverage
- Look at regions rather than a whole

Terrorism Coverage in the United States News

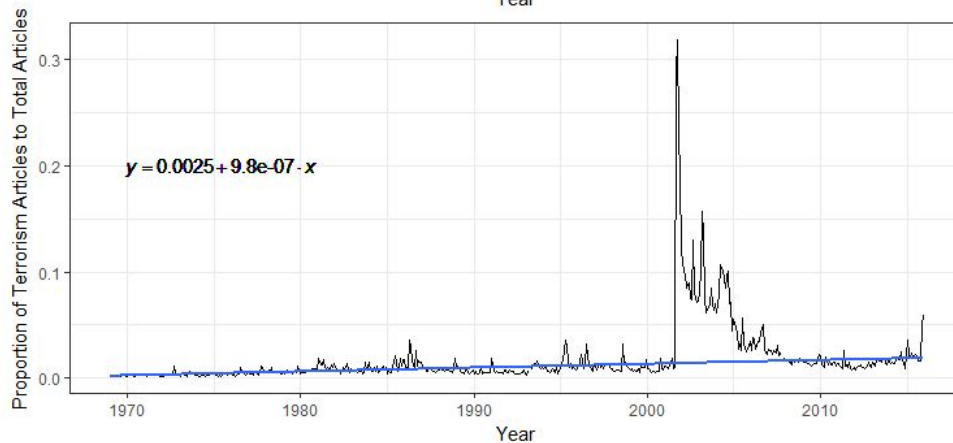
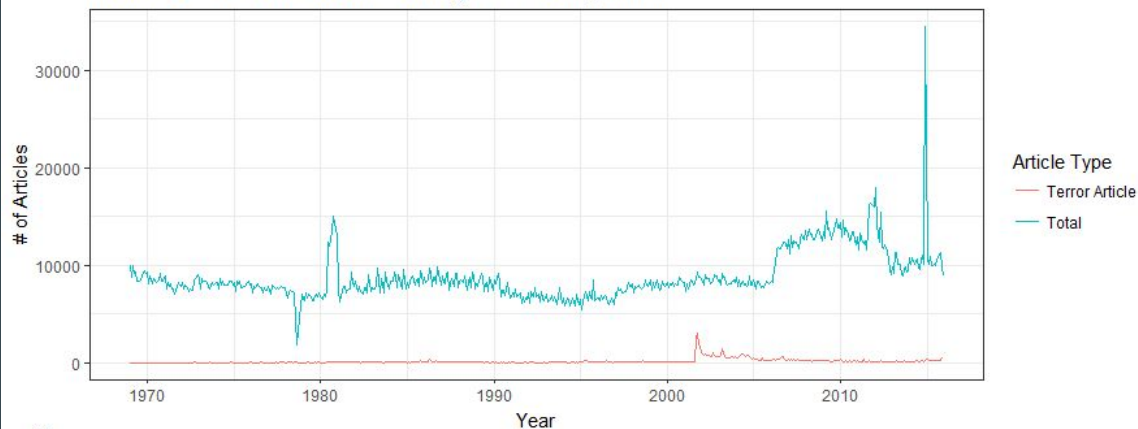
Intro:

- Aim to see if there is a relationship between terrorist attacks, deaths and media coverage.
- Media data is from the New York News archives

Terrorism Coverage in the United States News

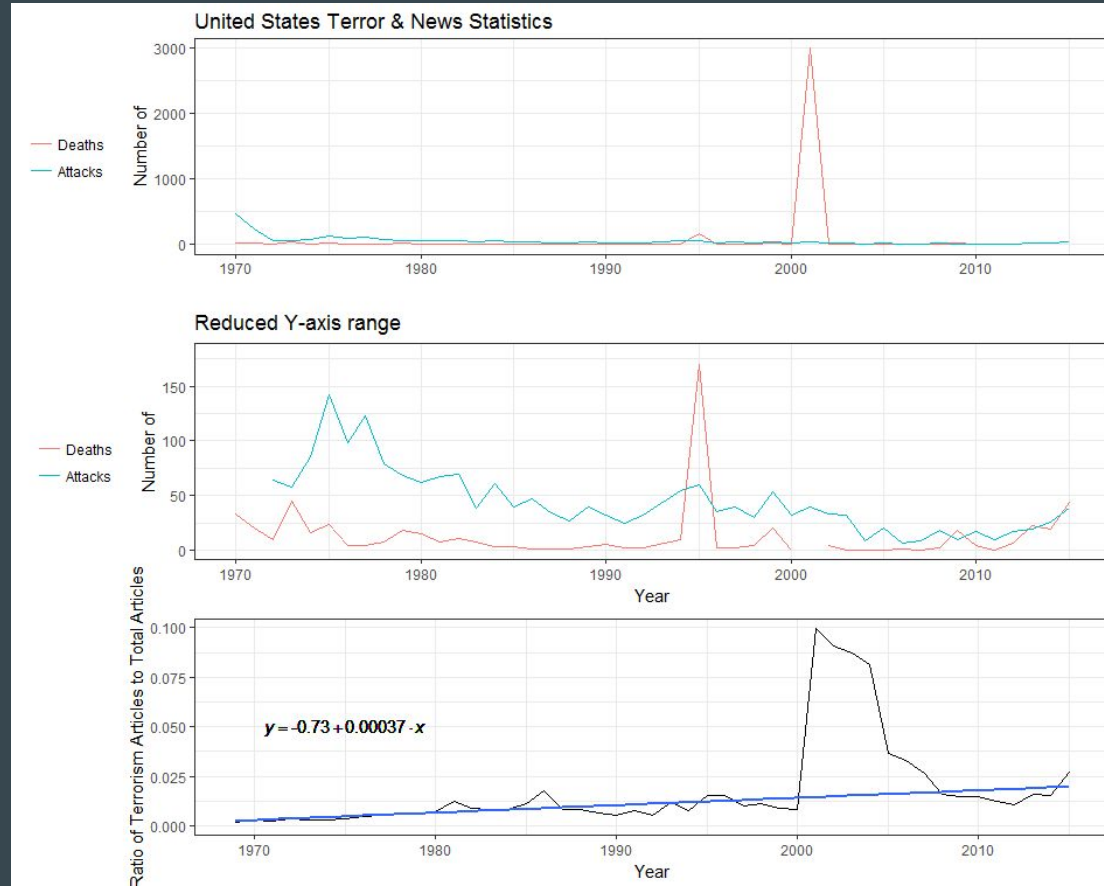
- Positive linear regression (robust)
- Big spike in september and following months, 2001 (911)
- After 911, it settled back into the robust linear progression

New York Times Articles Mentioning Terrorism by Month



Terrorism Coverage in the United States News

- Positive linear regression (robust).
- Outliers
- Major events eventually decrease to conform with linear model.
- Both attacks and deaths are decreasing while the ratio of terrorism related articles to normal articles is increasing



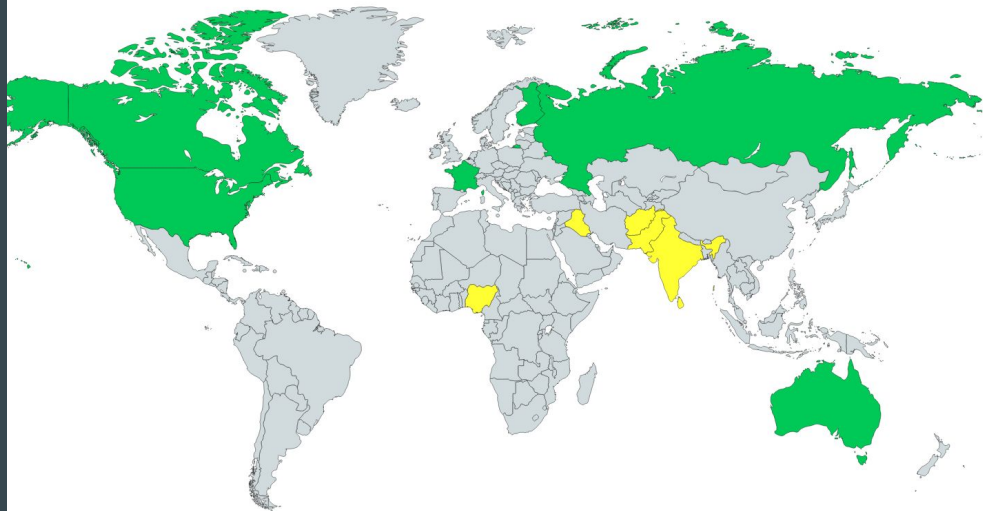
Terrorism Coverage in the United States News

What does this show us?

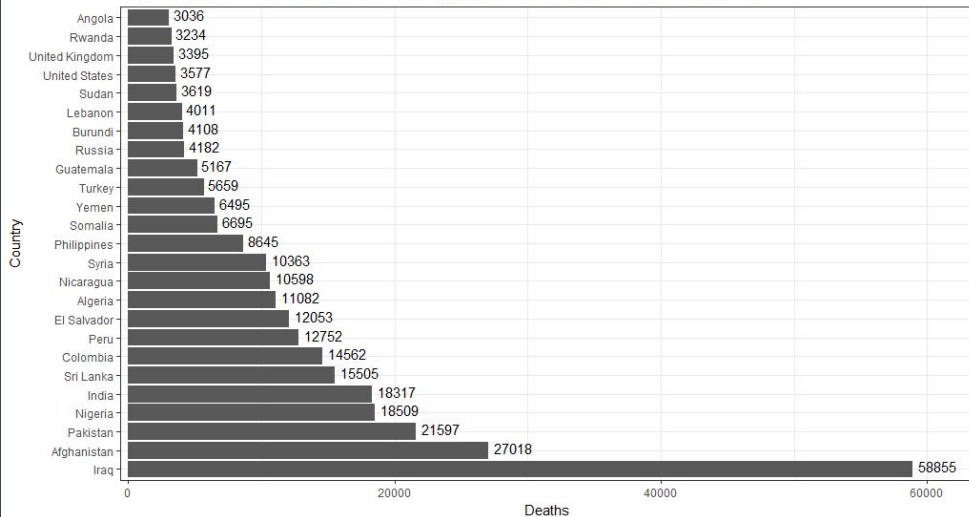
- Gradual increase in terrorism data each year, although very small (0.00037 gradient)
- Positive correlation between terrorism attacks and ratio of news articles, in recent years, since 2001 (911)

Method of Attacks Trends

- Hidden trends in attack methods
- Best seen split into regions
 - Top 6 countries by terrorism related deaths:
 - Iraq
 - Afghanistan
 - Pakistan
 - Nigeria
 - India
 - Sri Lanka
 - Western Countries
 - United States
 - Canada
 - Australia
 - France
 - Finland
 - Russia
 - United States



Top 25 countries with most deaths resulting from terrorist attacks between 1970-2015

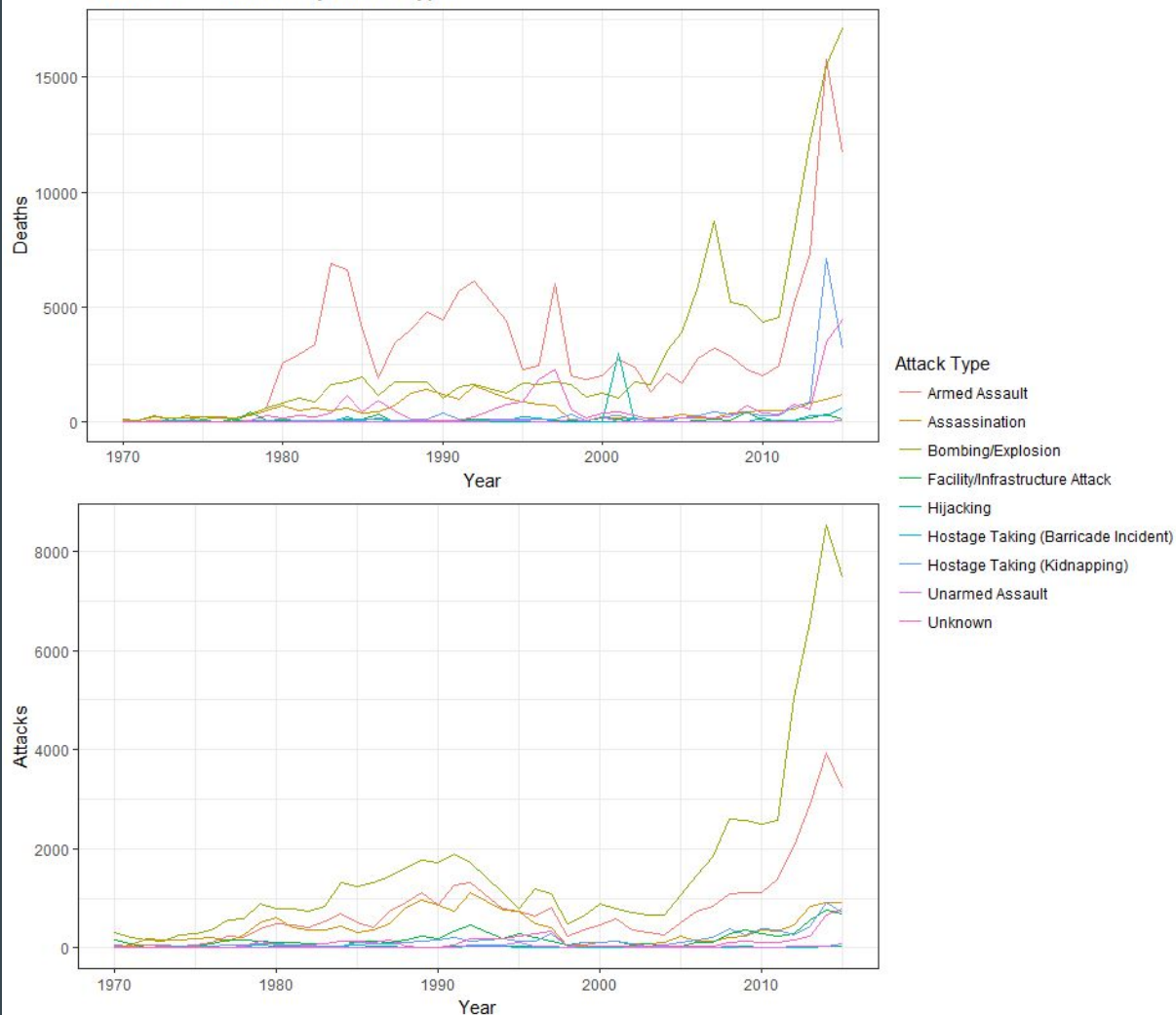


Method of Attacks Trends

Global Trends

- Armed Assault
- Bombings
- Skewed by *Top 6*

Global Terror Attacks by Attack Type

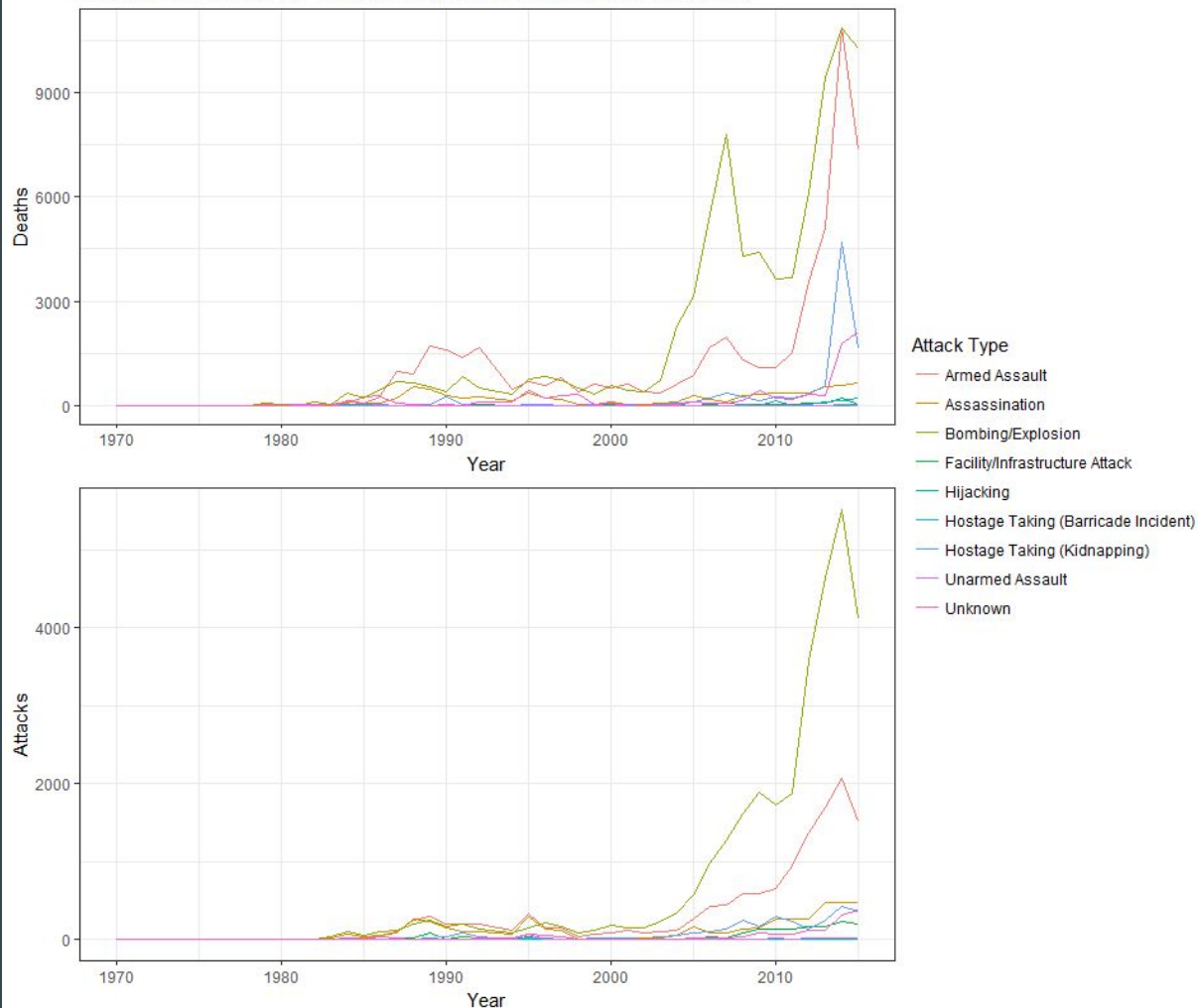


Method of Attacks Trends

Top 6 countries by terrorist related deaths

- Large increase in deaths by armed assault, bombing/Explosions, unknown and hostage since 2000
- Large increase in bombing/Explosions and armed assaults attacks since 2000

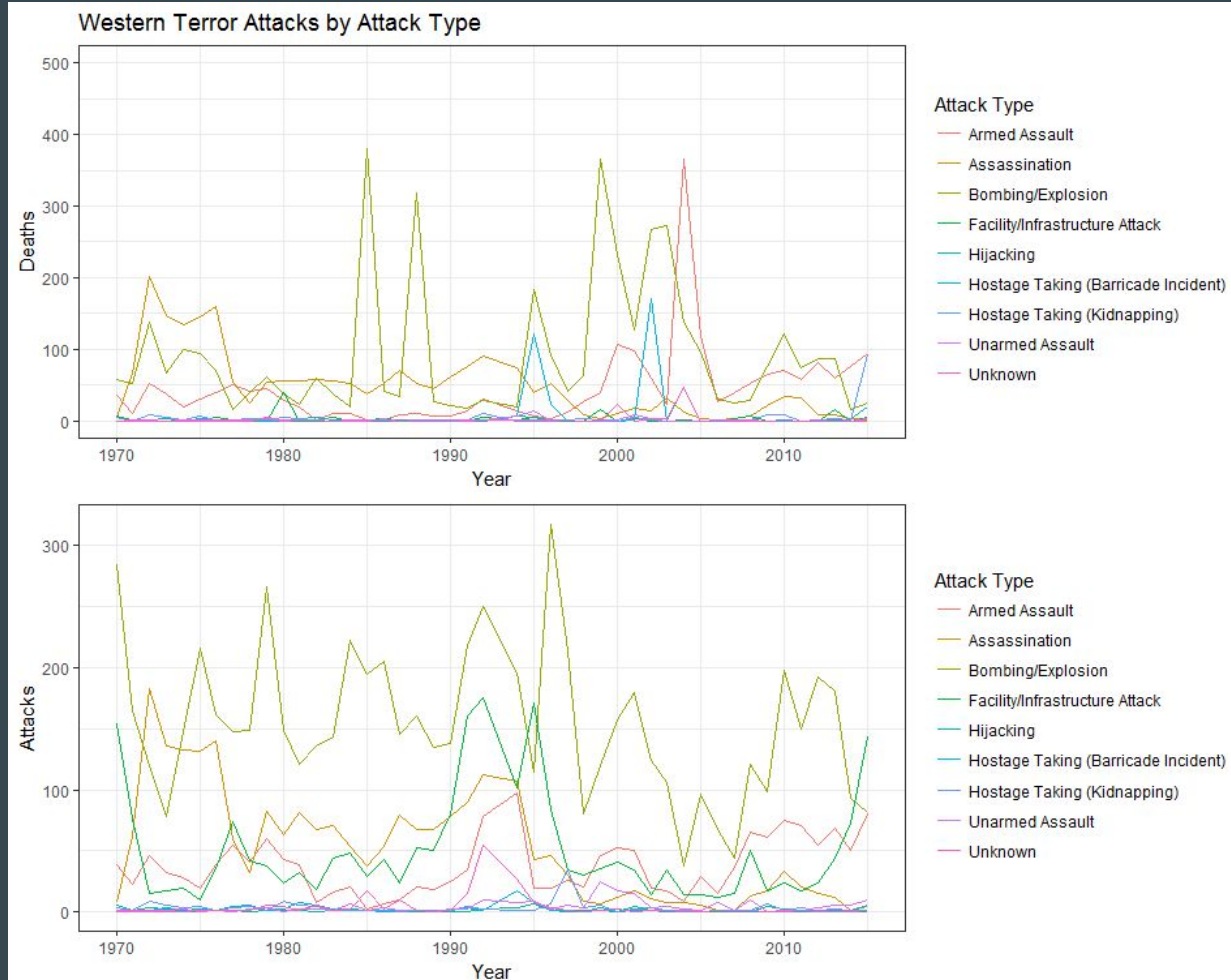
Terror Attacks by Attack Type in Iraq, Afghanistan, Pakistan, Nigeria, India & Sri Lanka (Top 6 countries by deaths from terrorist attacks)



Method of Attacks Trends

Western Countries

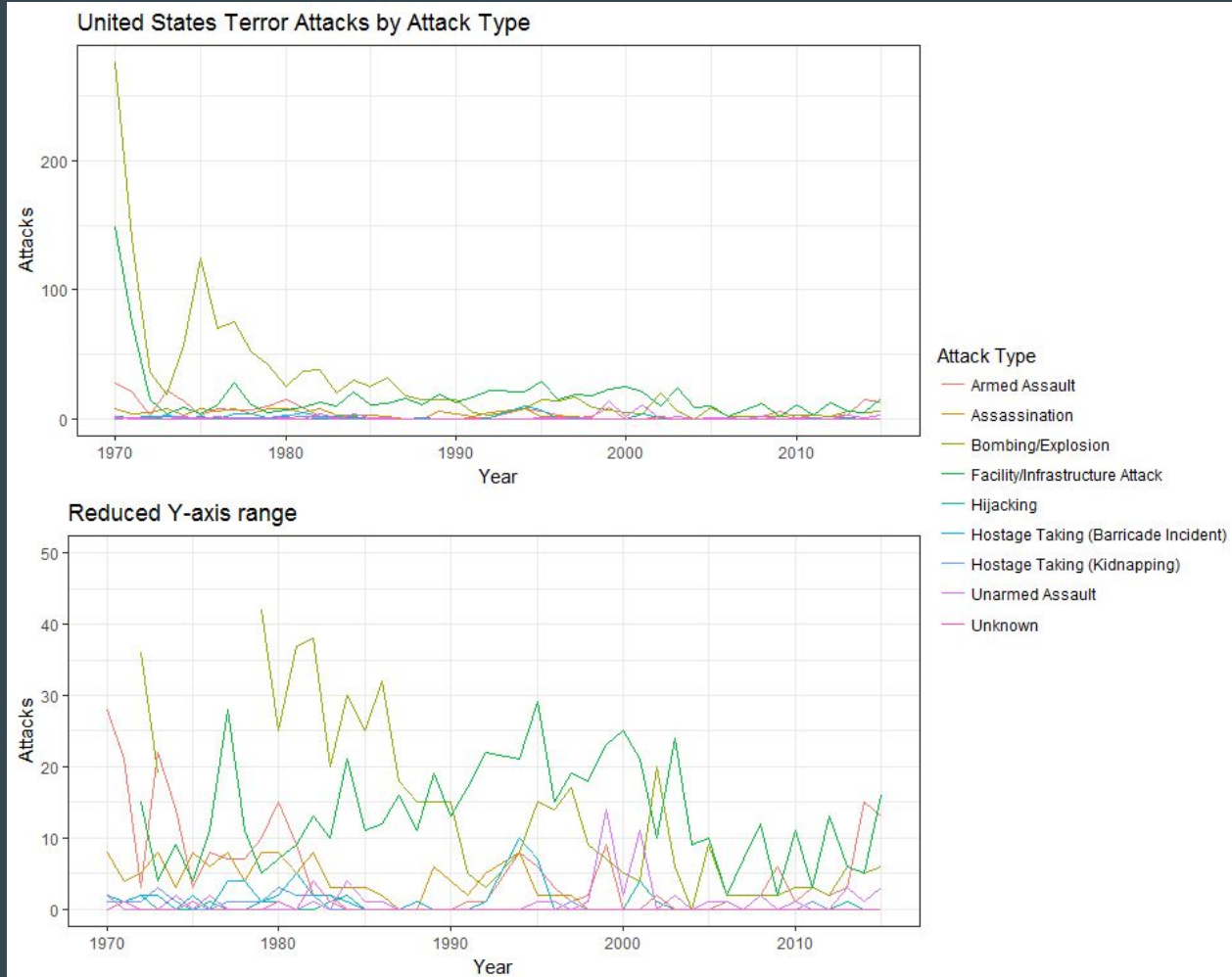
- Erratic/random
- No constant trend
- No general increase or decrease in each attack type



Method of Attacks Trends

United States (Attacks)

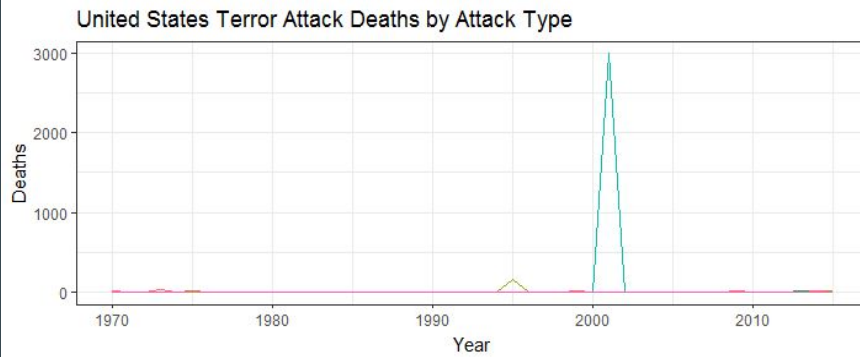
- Large decrease in all types of attacks since 1970
- facility /Infrastructure and armed assault being the largest



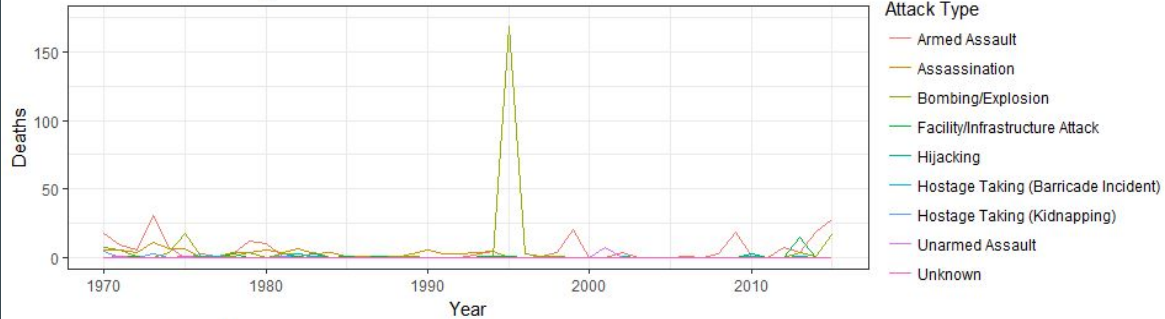
Method of Attacks Trends

United States (Deaths)

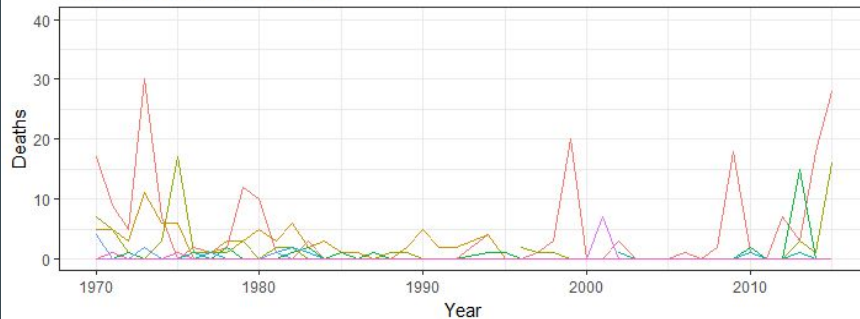
- Large spike in 2001 (911), 2,977 fatalities
- Large spike in 1995, (oklahoma bombing), 168 fatalities
- No large increase in Number of deaths
- Currently in another spike (more data needed)



Reduced Y-axis range



Further reduced Y-axis range



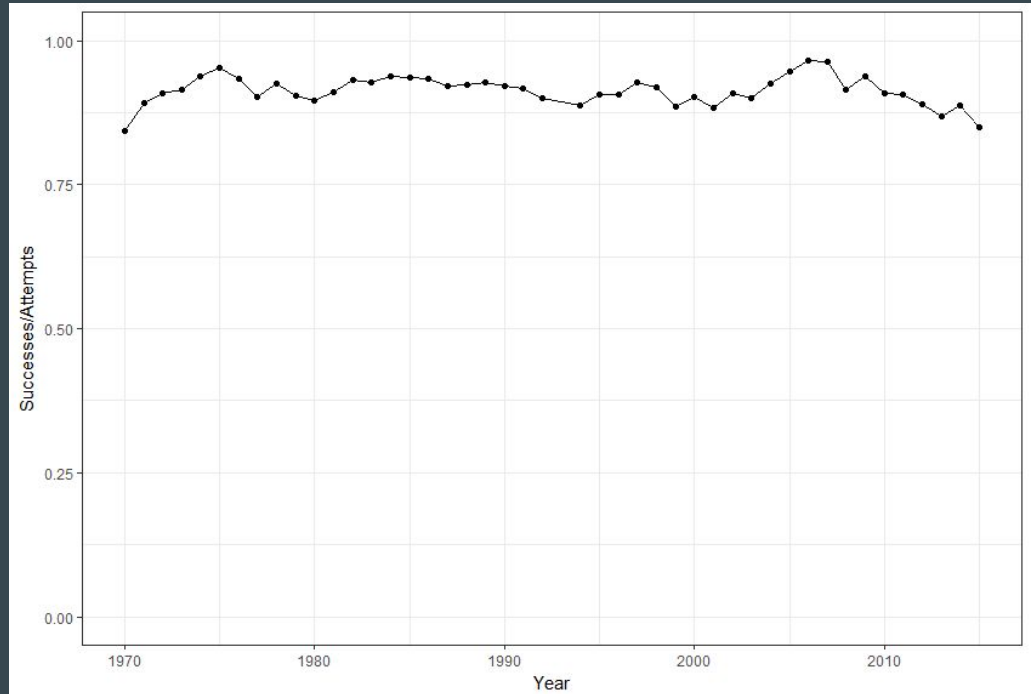
Success Rates of Terrorist Attacks

How have the rates of success for terrorist attacks changed between 1970-2015?

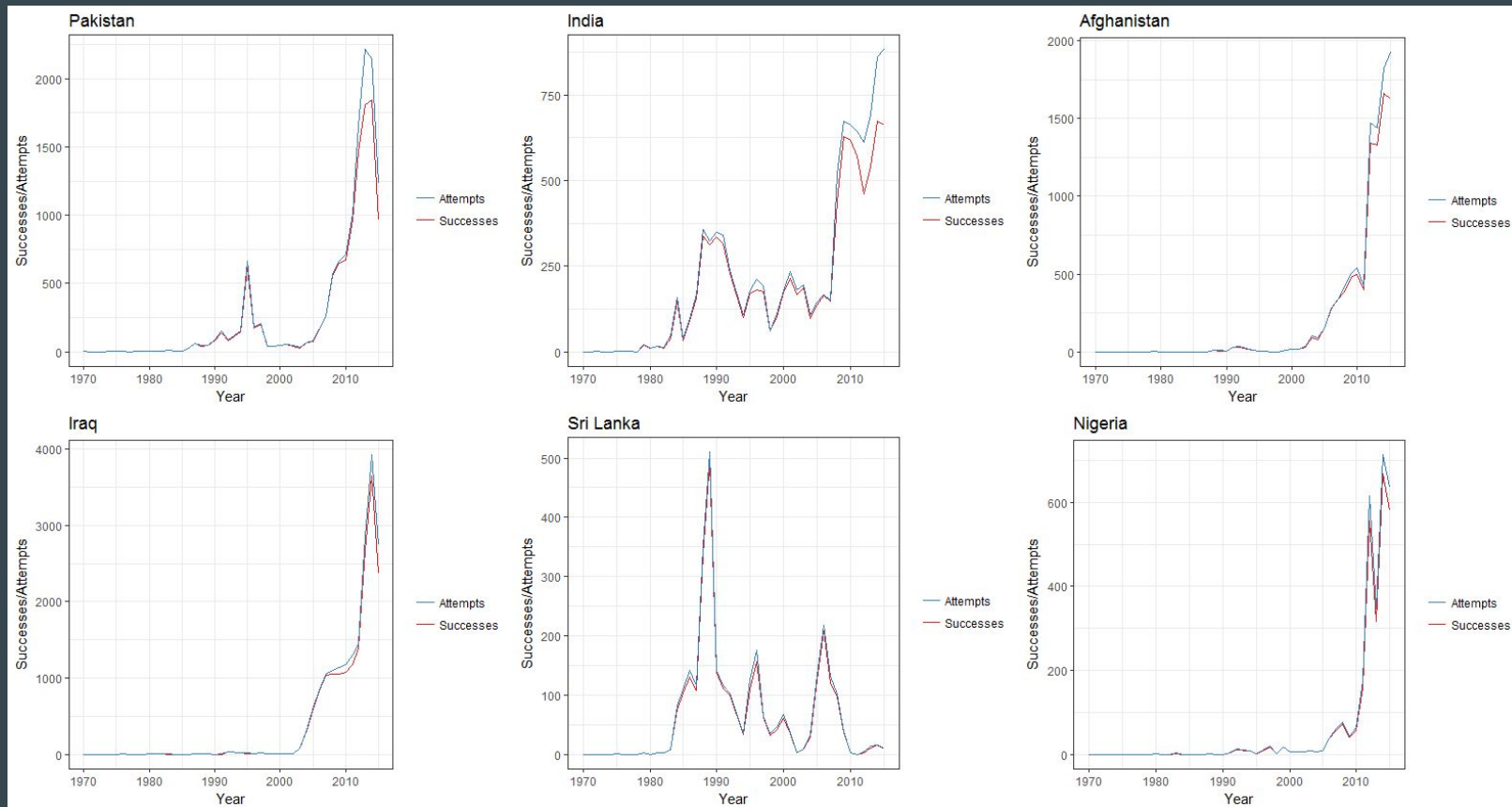
What does this mean?

Success Rates of Terrorist Attacks - Global

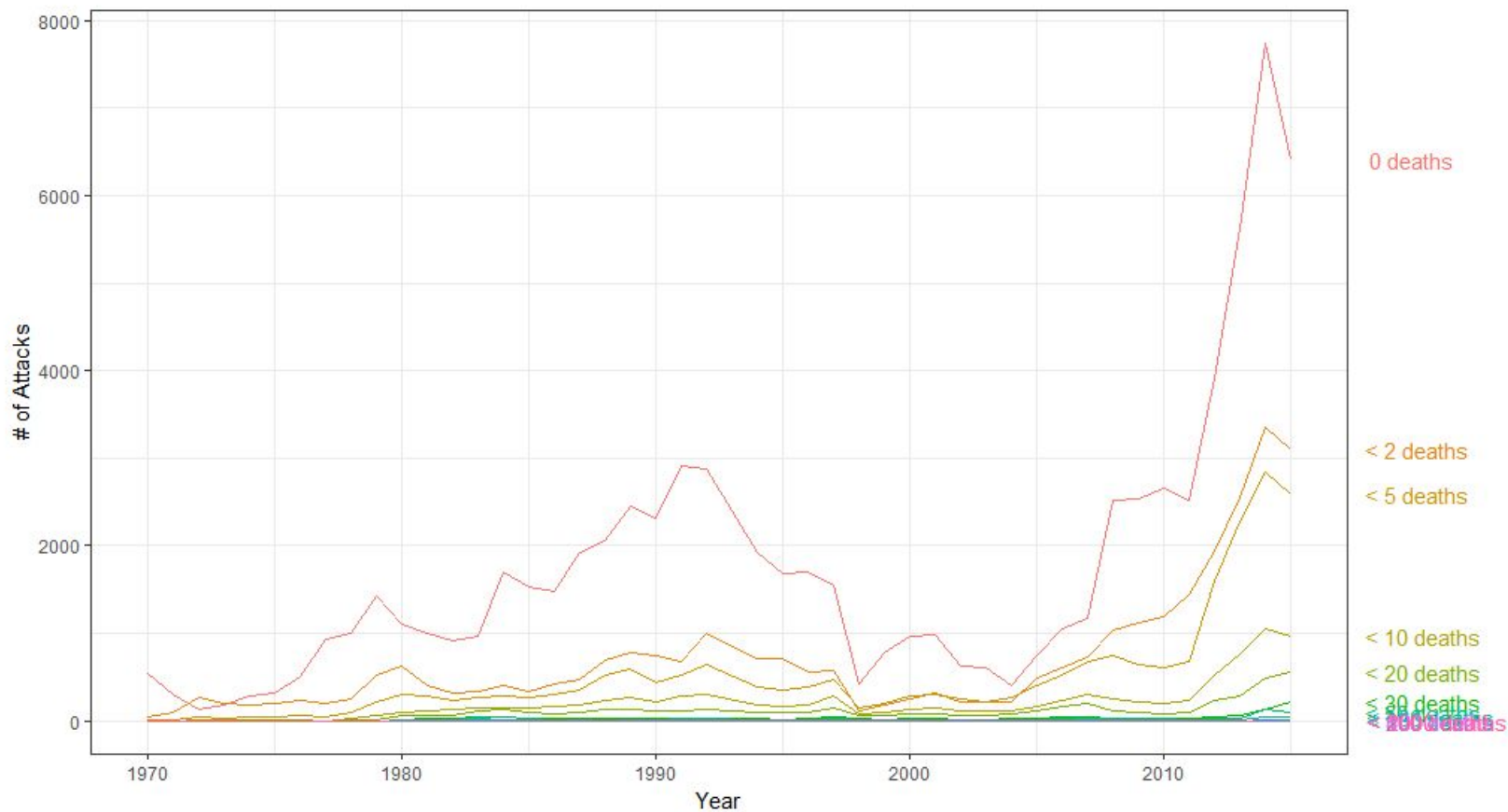
- Stable high success rate
- Mean: 0.9132
- Median: 0.9153
- Min: 0.8428
- Max: 0.9647



Success Rates of Terrorist Attacks - Top 6

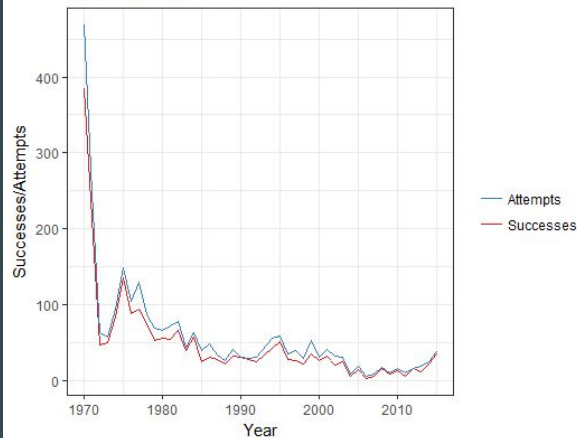


Attacks Over Time - Global

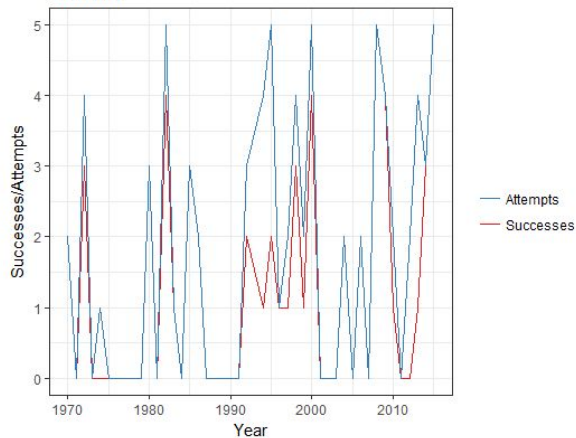


Success Rates of Terrorist Attacks - Western Countries

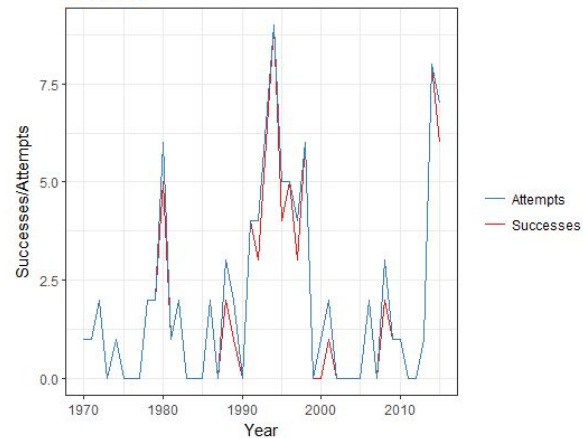
United States



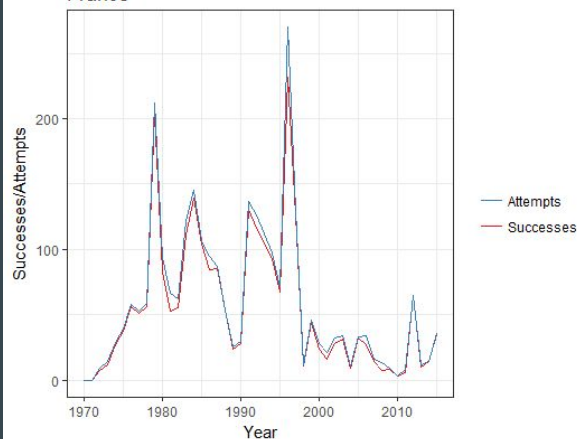
Canada



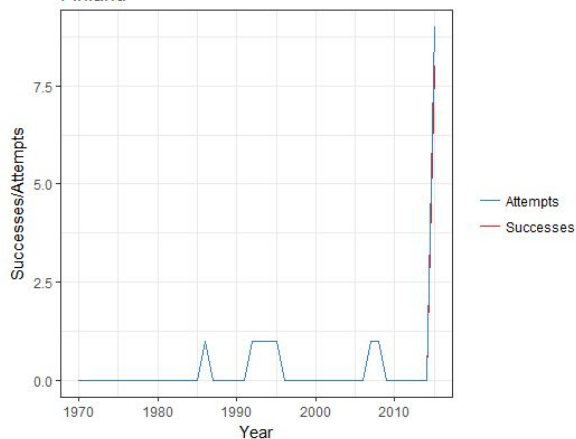
Australia



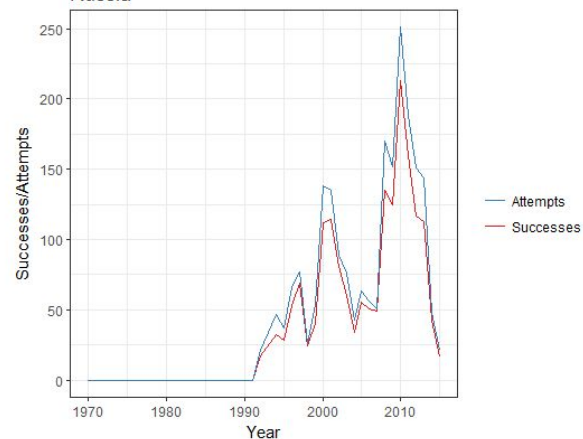
France



Finland



Russia



Further Research

- How social media news rather than mainstream news has an impact or reflects the terrorism rates?

References

1. National Consortium for the Study of Terrorism and Responses to Terrorism (START) (2016). <https://www.start.emd.edu/gtd>
2. The New York Times archive. <https://www.nytimes.com/>

Any Questions?