

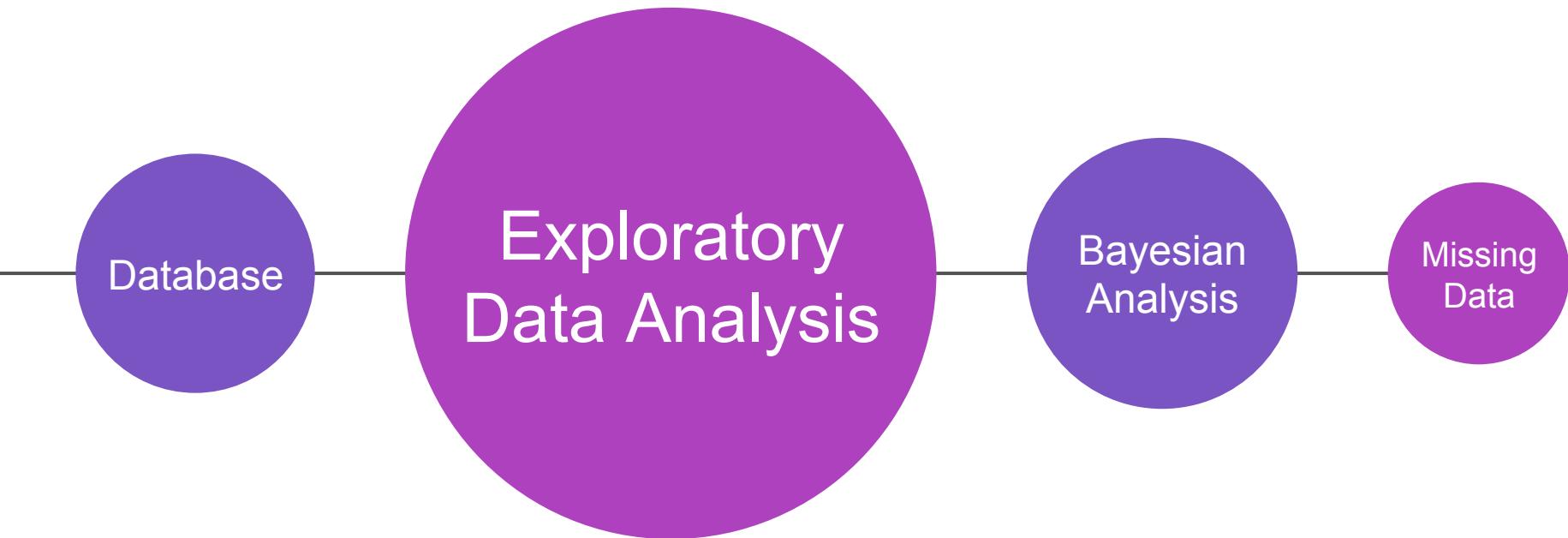
# Global Terrorism Analysis



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General Assembly DC, Data Science Immersive

# Overview

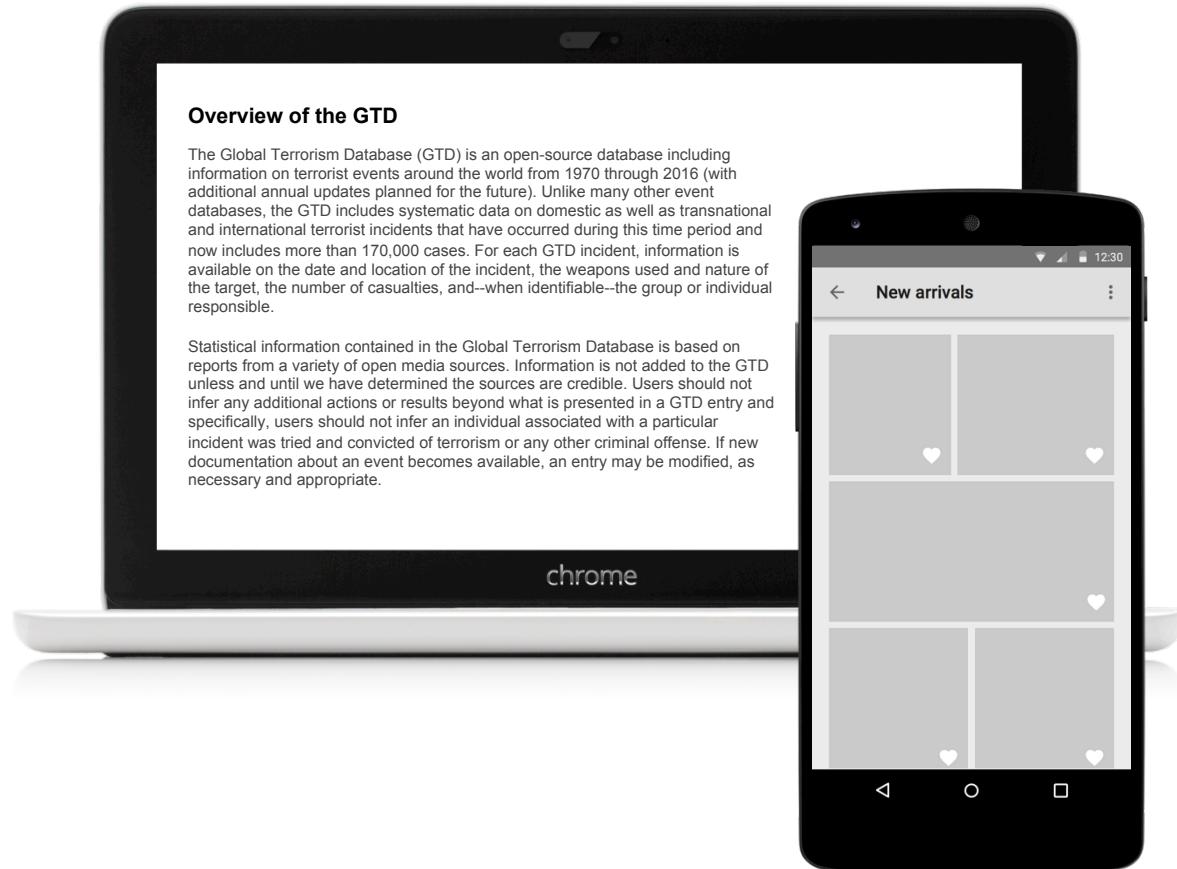


# Global Terrorism Database

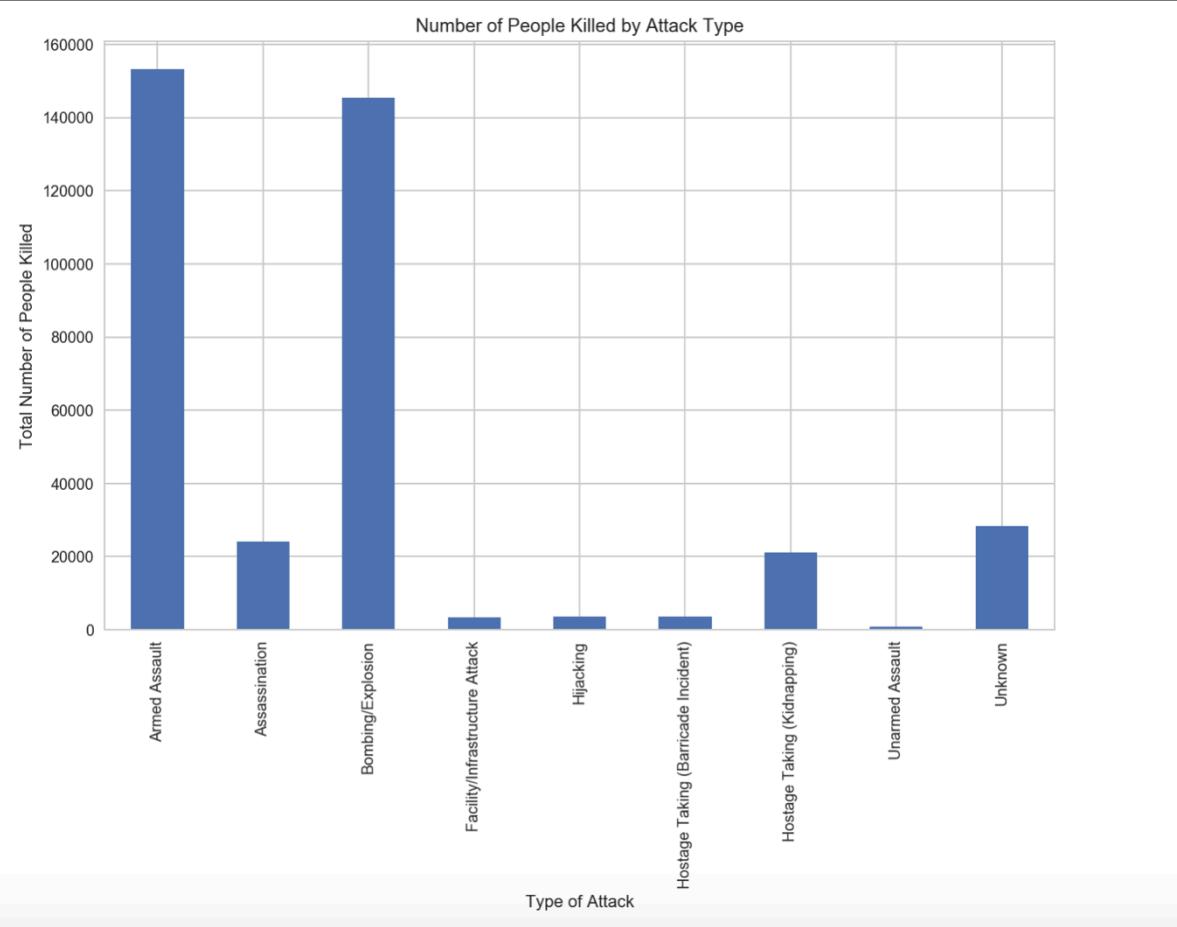
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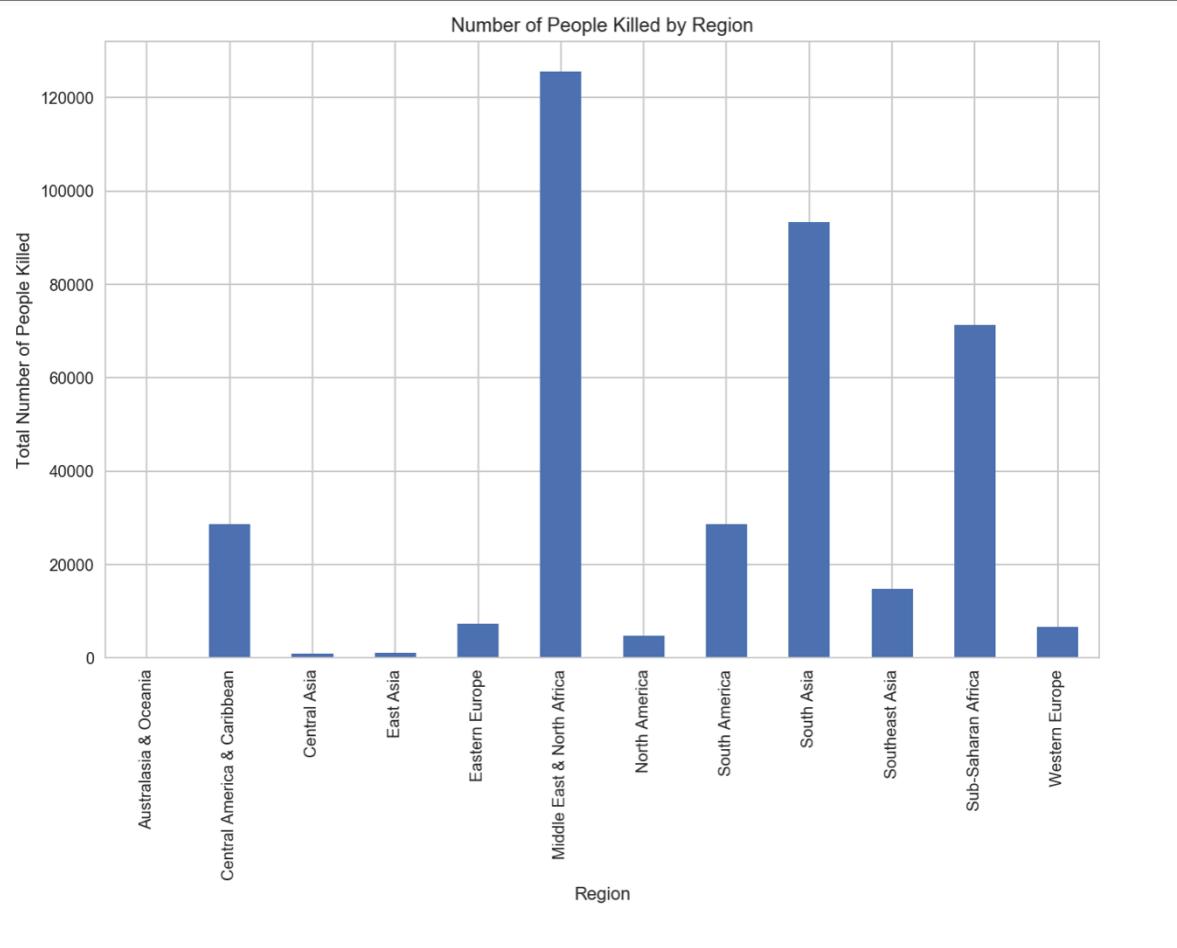
- Maintained by the National Consortium for the Study of Terrorism and Responses to Terrorism (START) at the University of Maryland
- Years 1970-2016
- 170,000+ attacks



# Exploratory Data Analysis



- ## Types of Attacks
- Total number of fatalities from 1970-2016
  - Bombings and Explosions
  - Armed Assaults



## Regions Hardest Hit

- Total number of fatalities from 1970-2016
- Middle East & North Africa
- South Asia

# Philippines and Marawi City

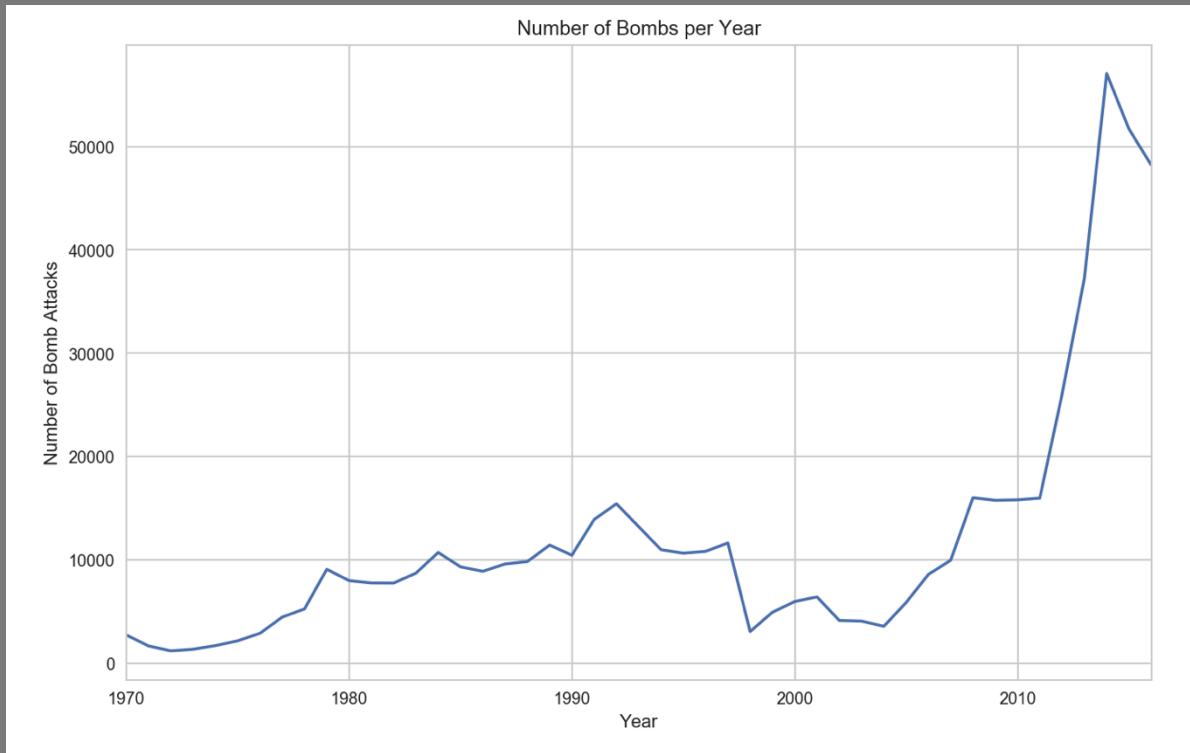
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- Ongoing Battle of Marawi
- Philippine Government Security Forces
- Abu Sayyaf - pledged to ISIS in 2014
- Mauta group



# Number of Bombings per Year

- Number of fatalities from 1970-2016
- Spike after 2010

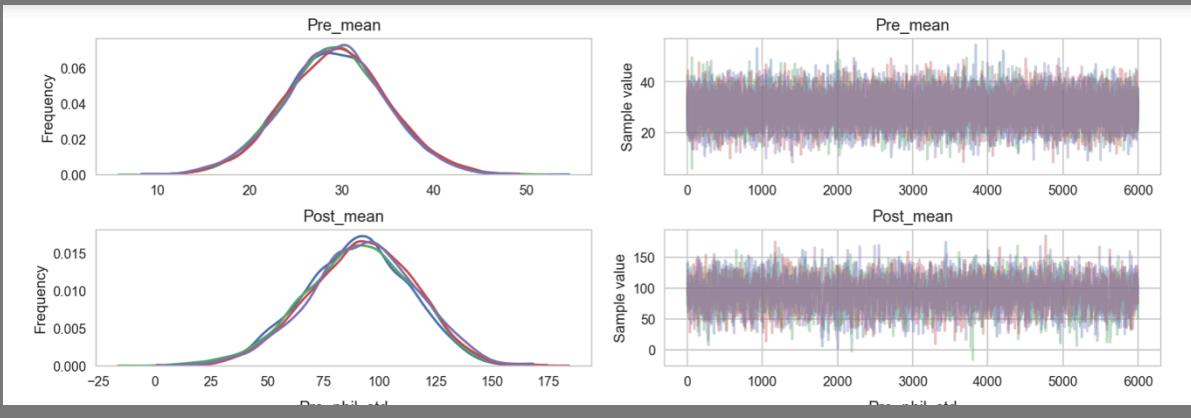


# Bayesian Analysis

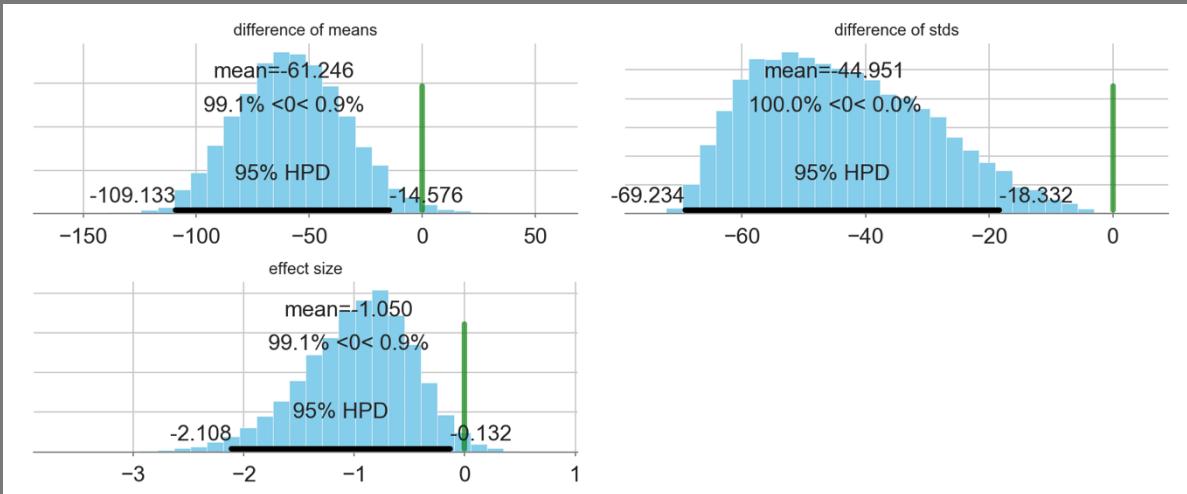
**Objective:** determine whether or not the Philippines saw the same spike in terrorism after 2010

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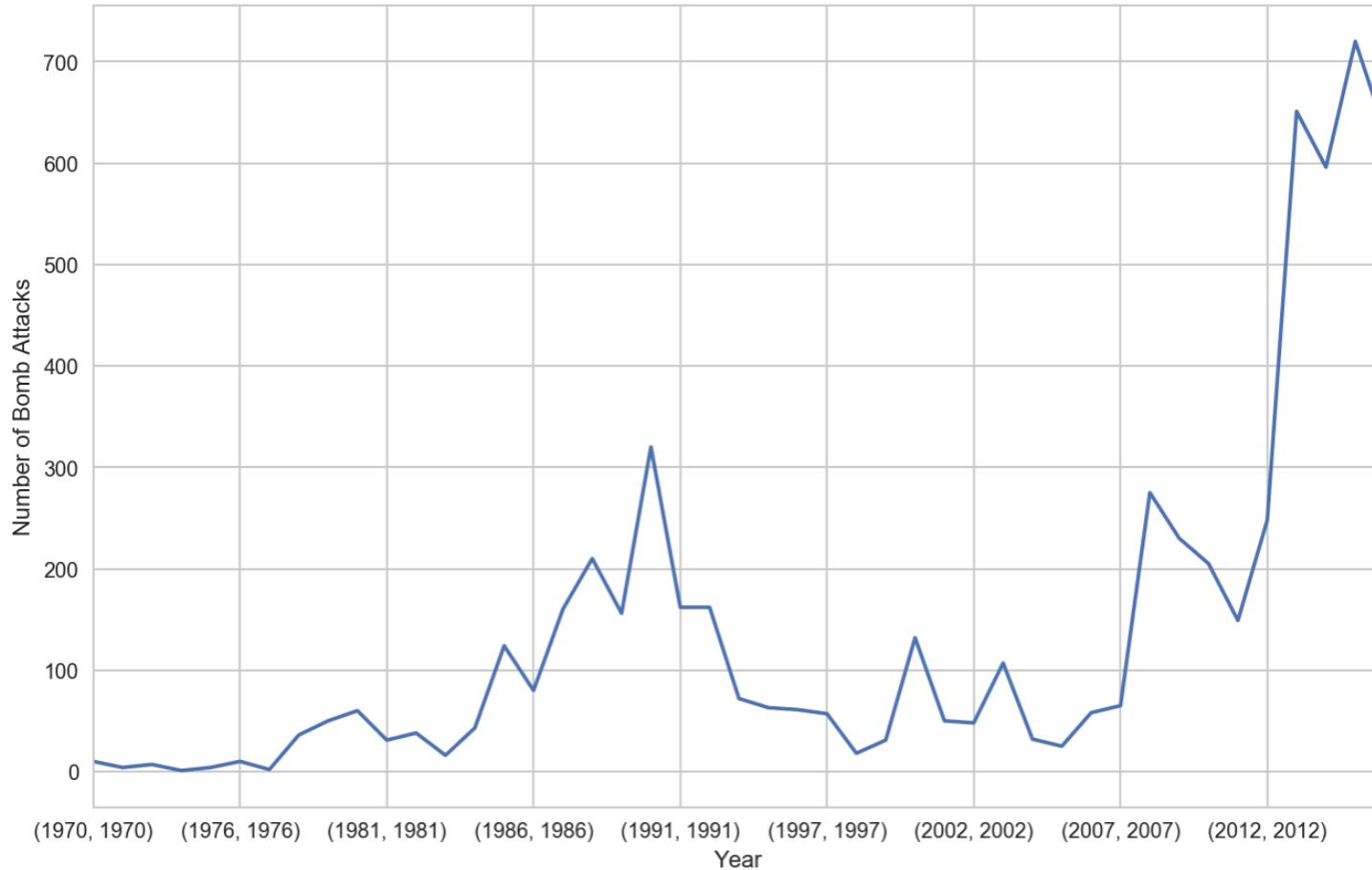
Prior: on average between 1970 and 2009 there were 29 bombings per year in the Philippines



Conclusion: the difference in means between pre-2010 and post-2010 bombings in the Philippines was statistically significant



### Number of Bombs per Year in the Philippines

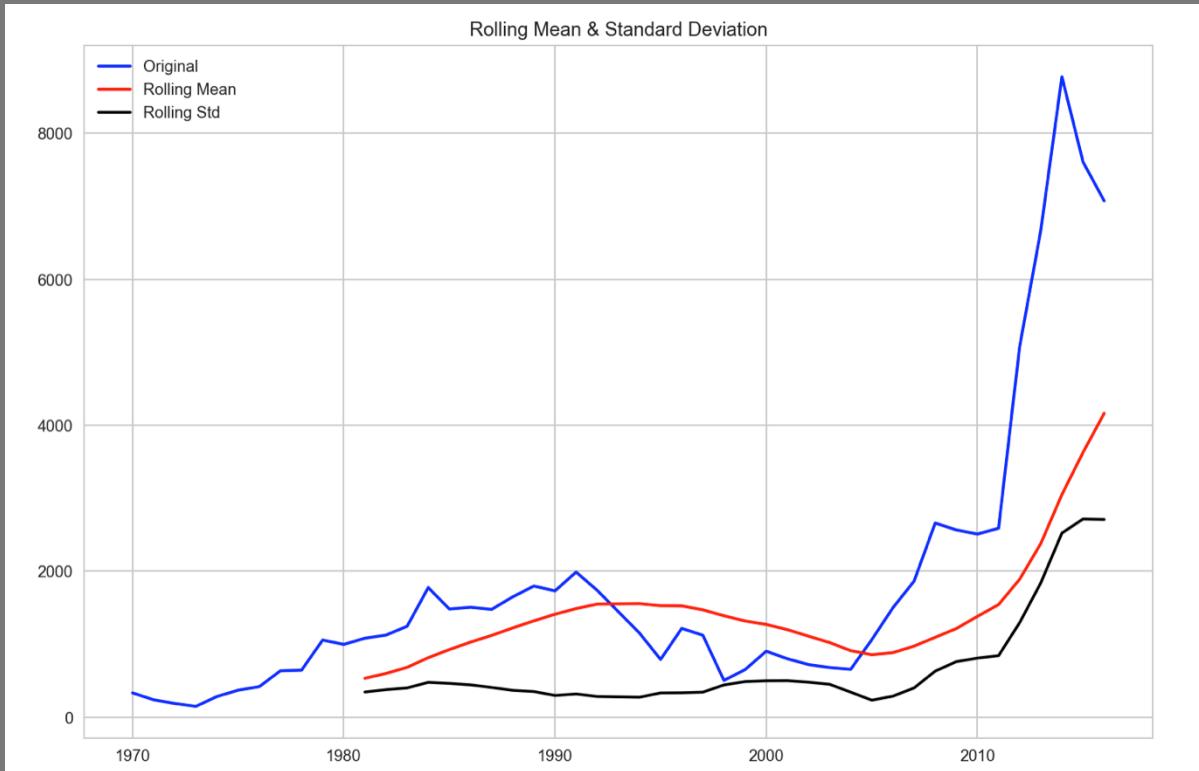


Missing Data:  
1993

Number of  
Bombings per  
Year

Yearly Rolling  
Mean

Non-stationary  
Process

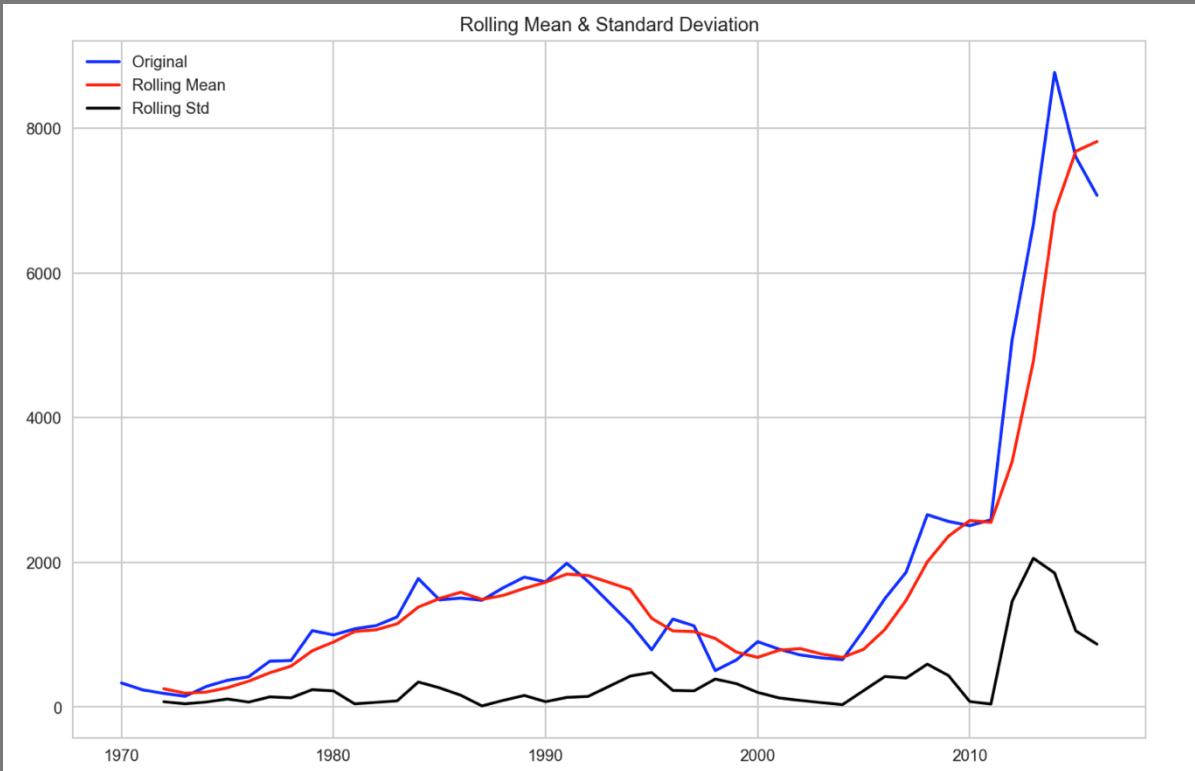


# Number of Bombings per Year

## Quarterly Rolling Mean

### Non-stationary Process

#### 1720 Bombings in 1993



1992 1819.000000  
1994 1626.333333

# Conclusions

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- Uptick in bombings since 2010
- The Philippines have seen a significant increase in the number of bombings since 2010

Questions?

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