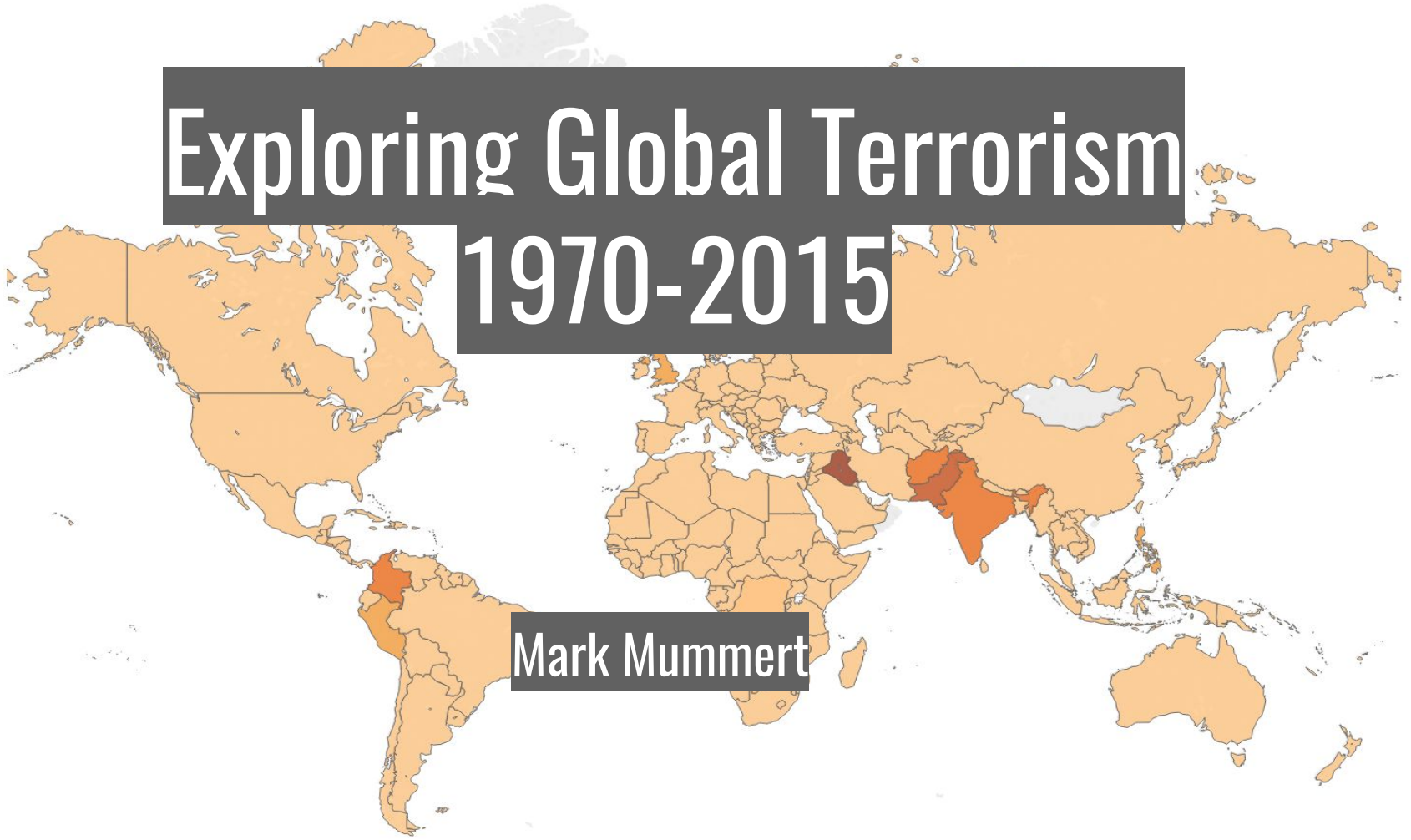


Exploring Global Terrorism

1970-2015

Mark Mummert



Outline

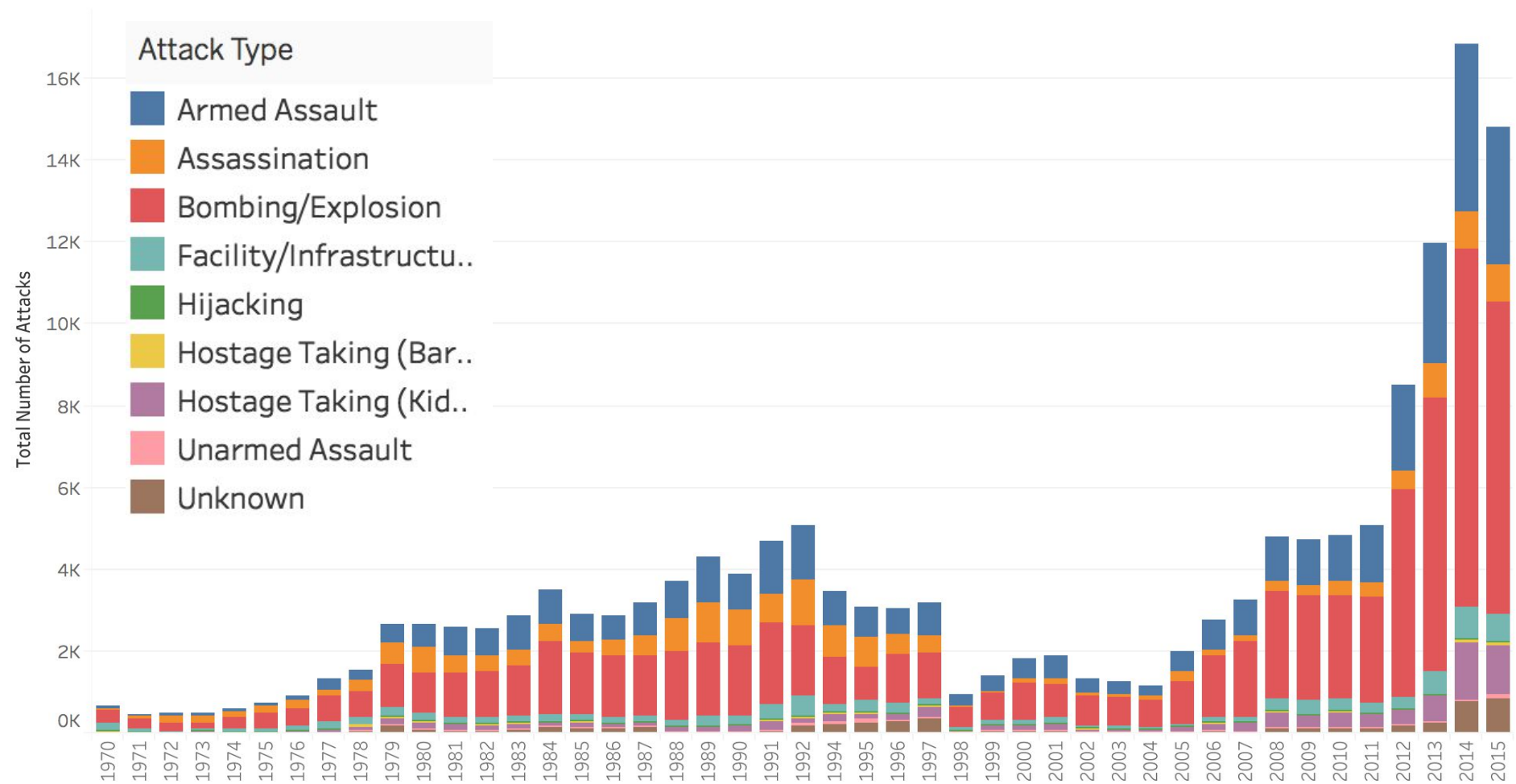
Exploring the Data

Bayesian Test

Imputing 1993
Bombings

Data Exploration

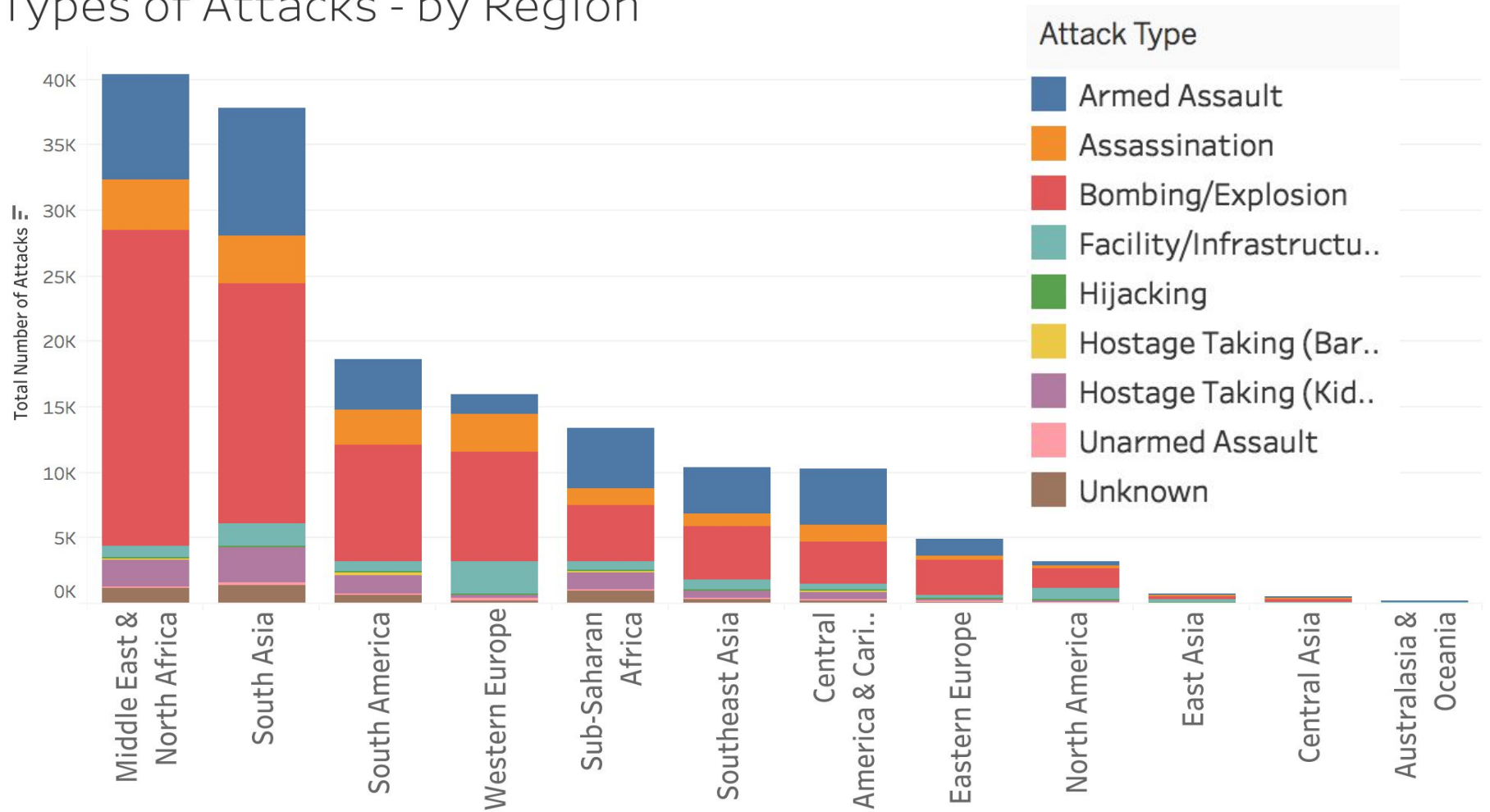
Types of Attacks



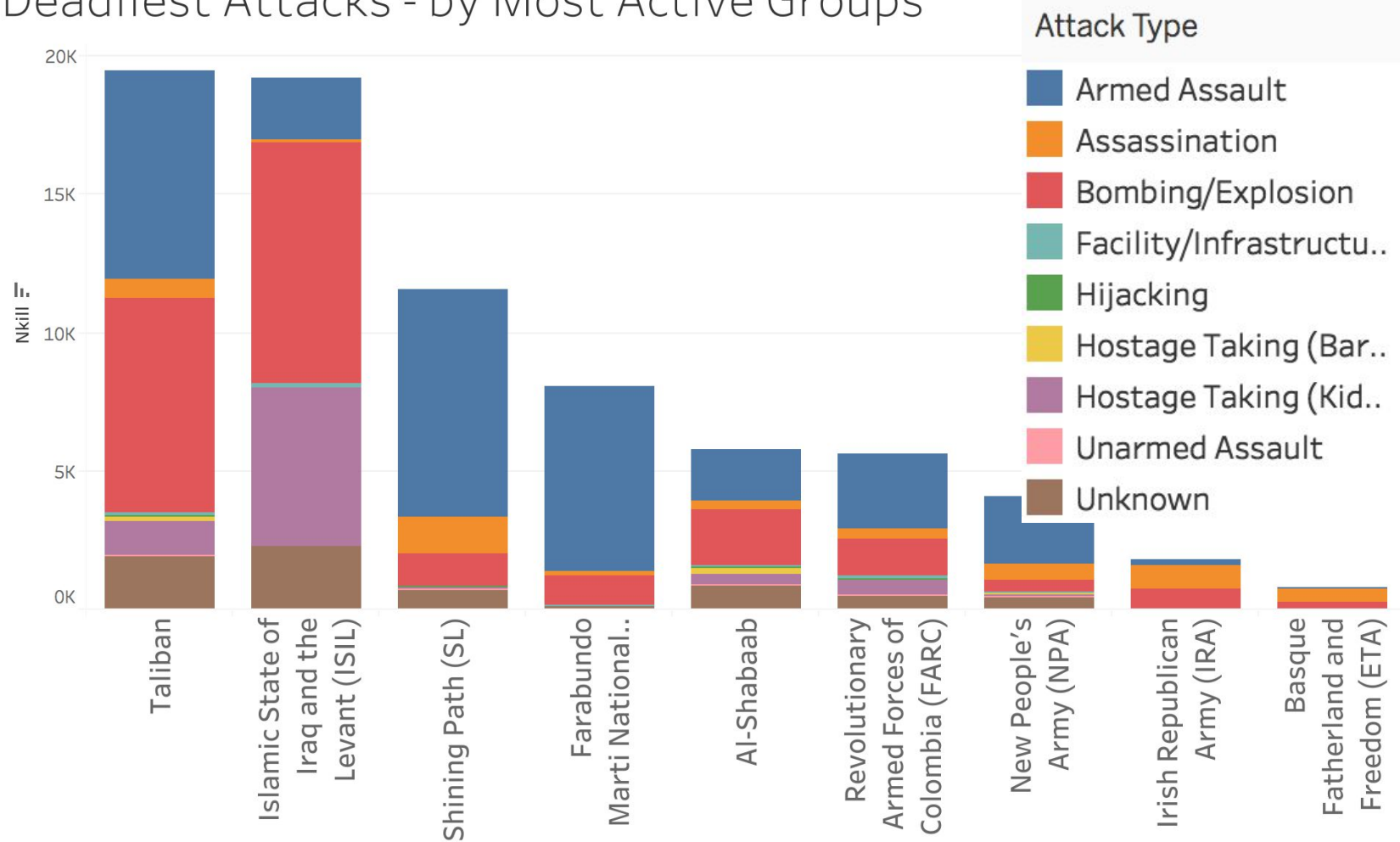
**Total Attacks and Attacks
Reported:**

**Does the trend reflect
reality?**

Types of Attacks - by Region

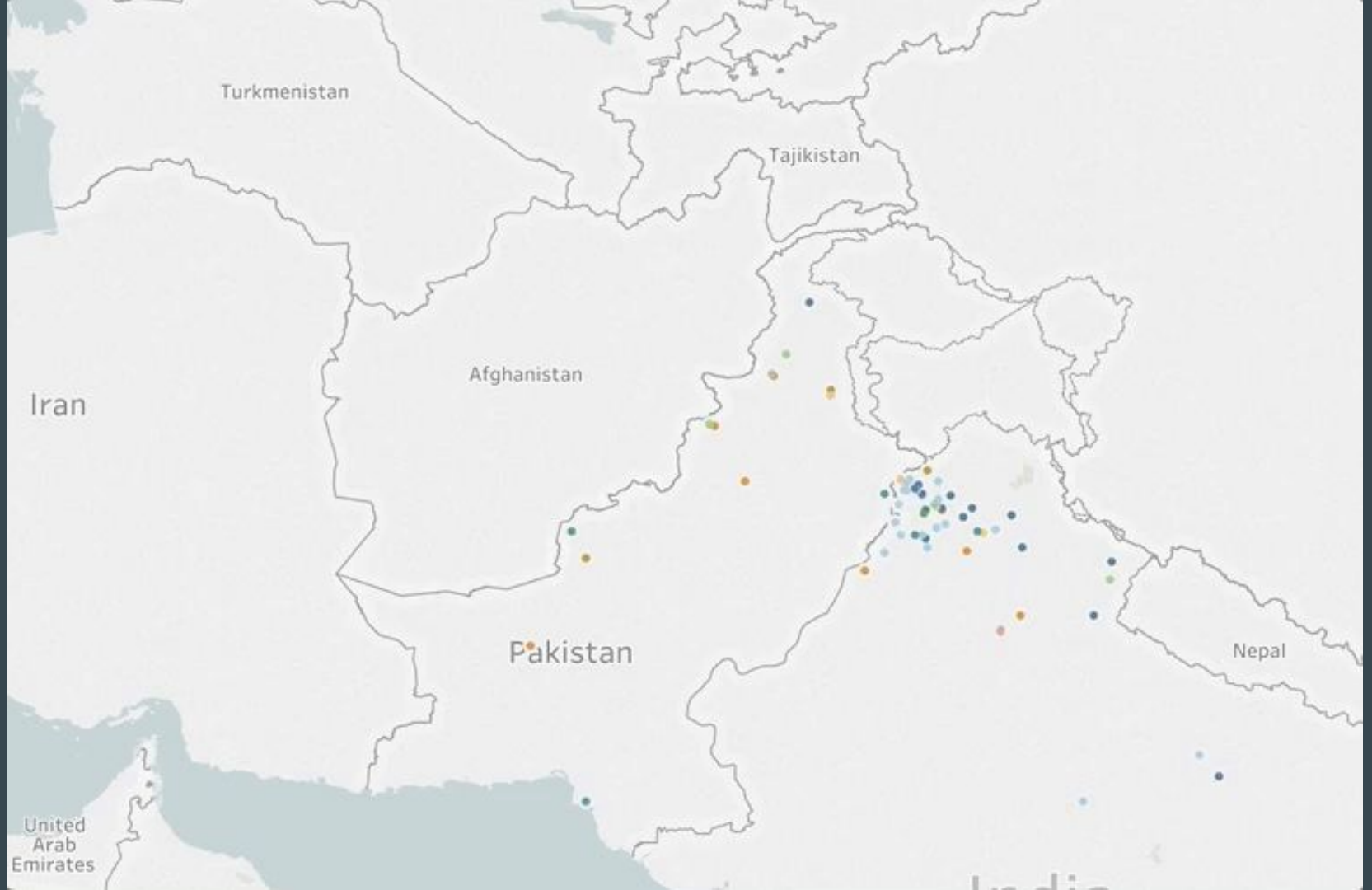


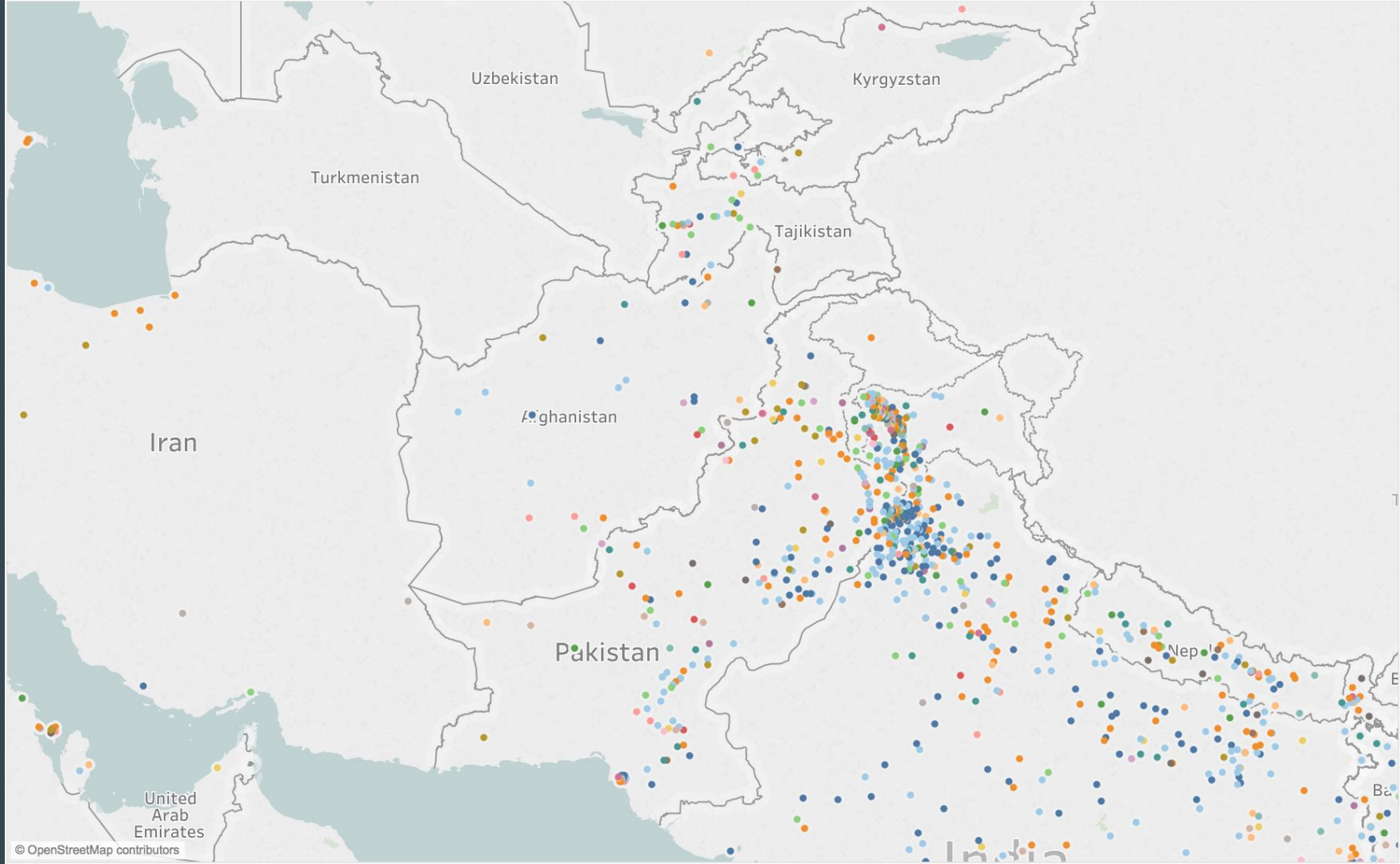
Deadliest Attacks - by Most Active Groups

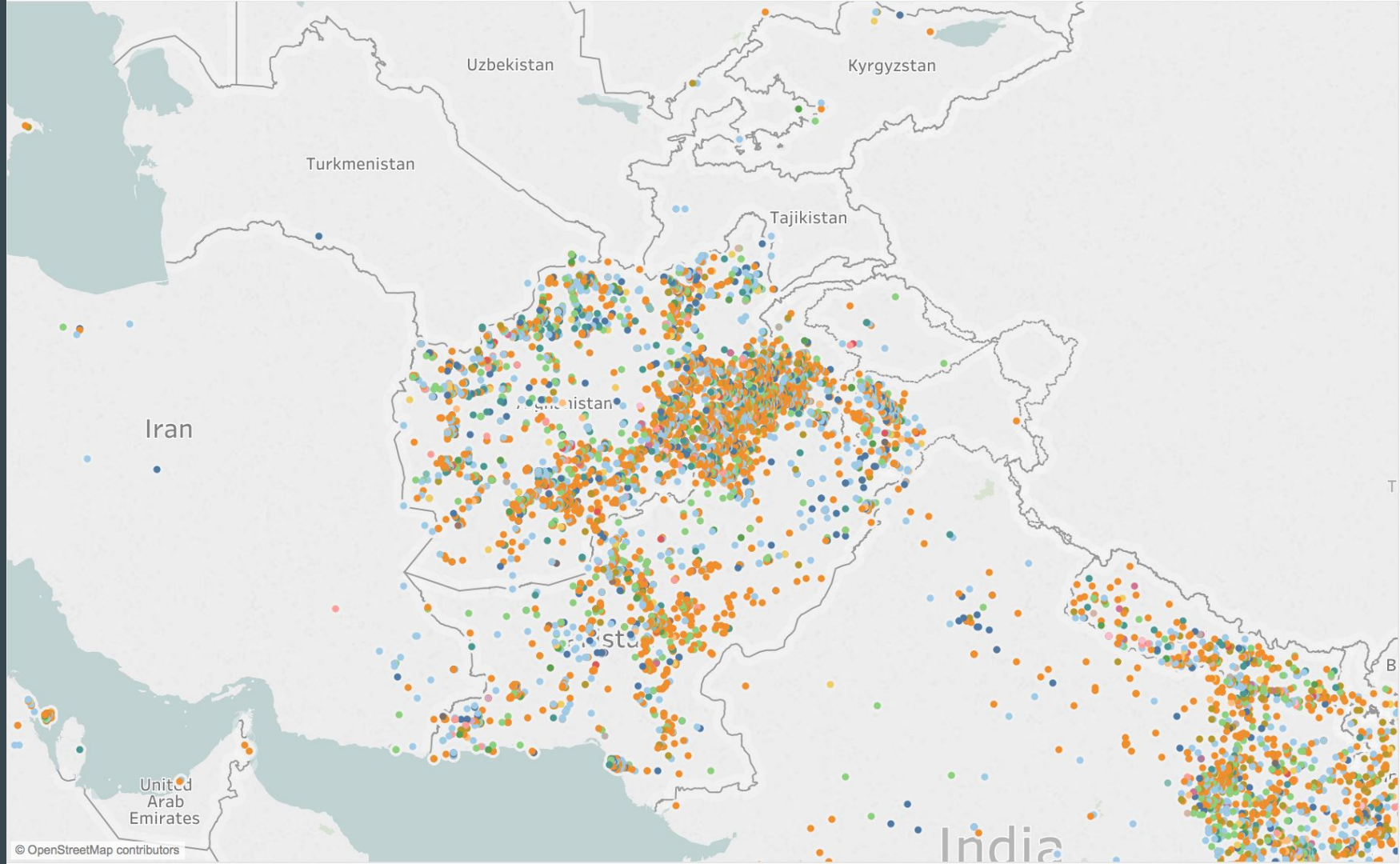


Bayesian Population Test

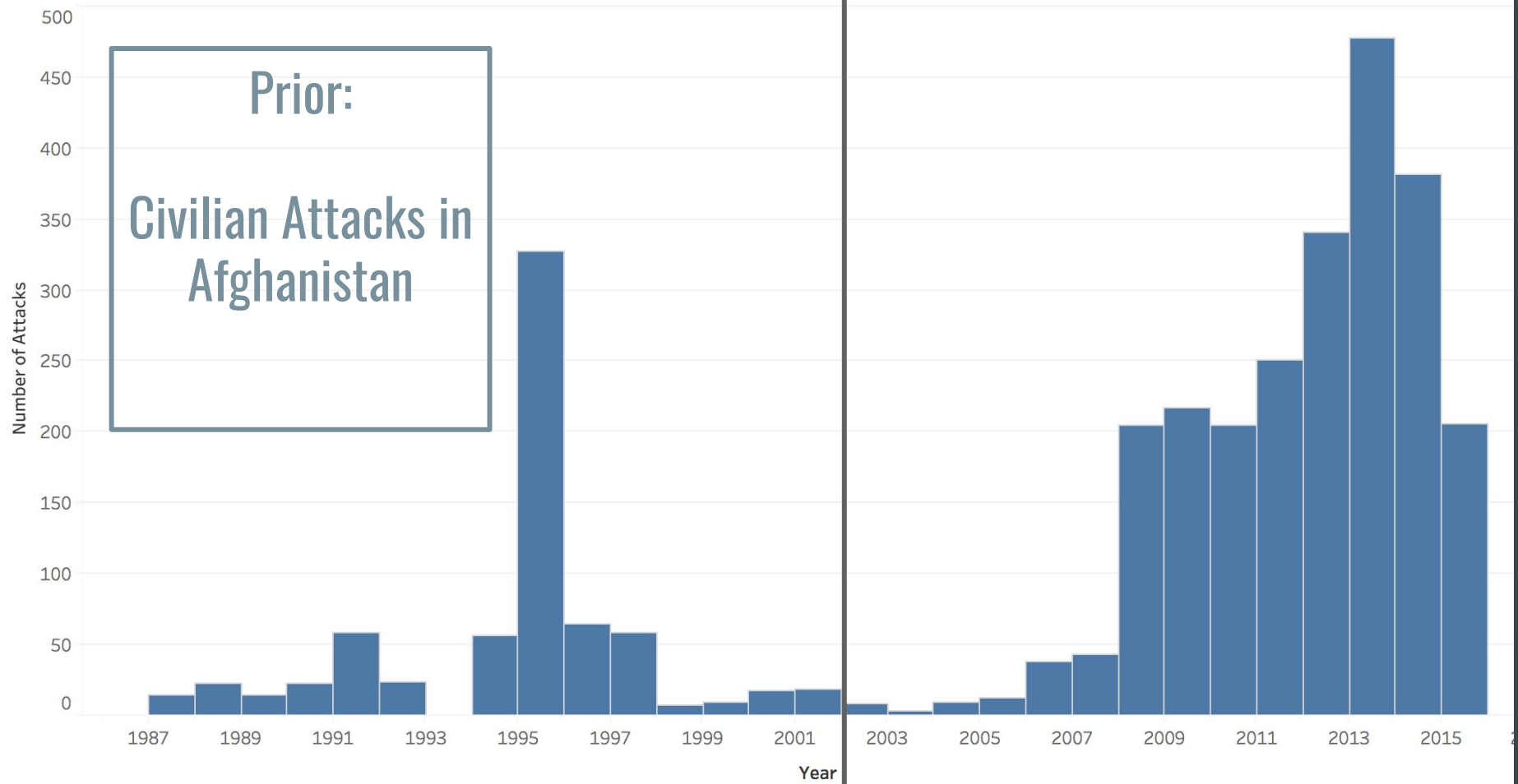
**Is the distribution of
attacks on civilians in
Pakistan different between
1987-2001 and
2002-2015?**



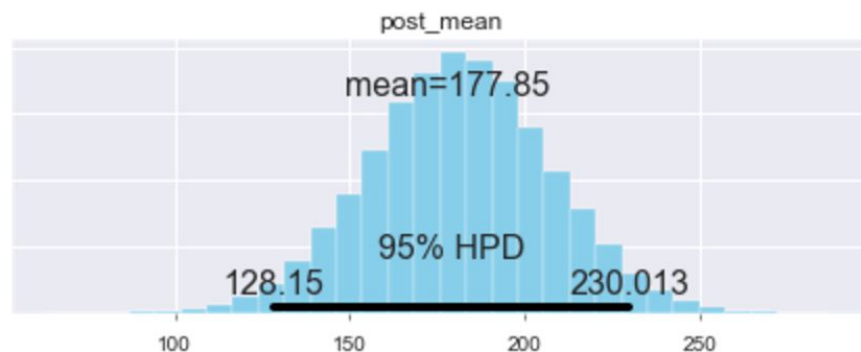
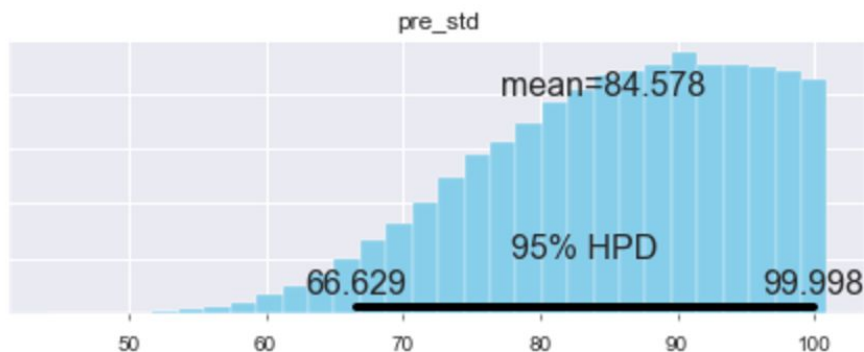
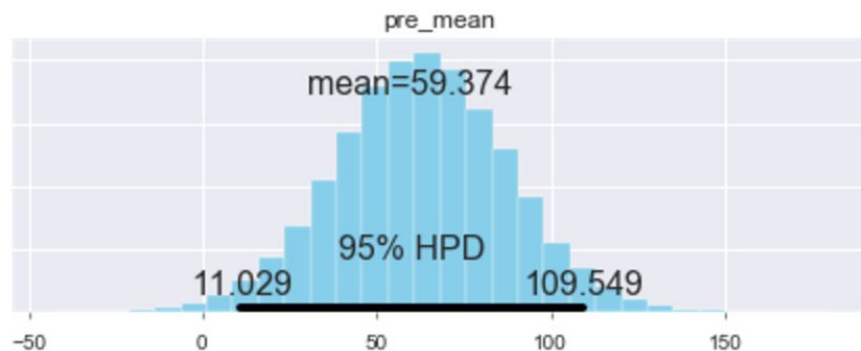
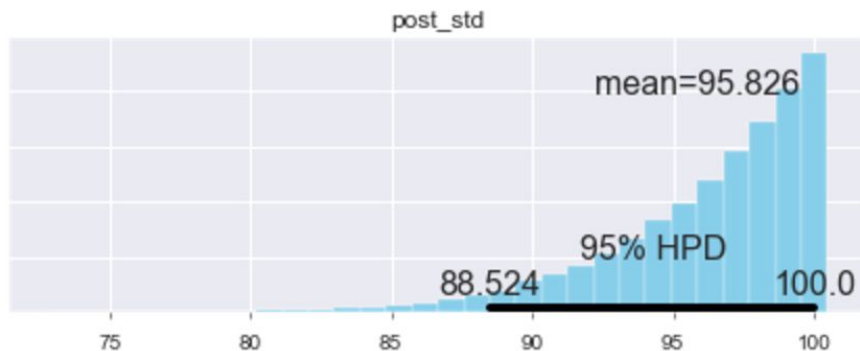




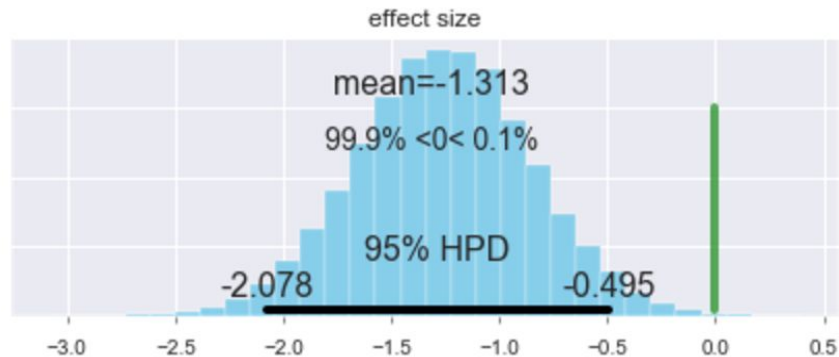
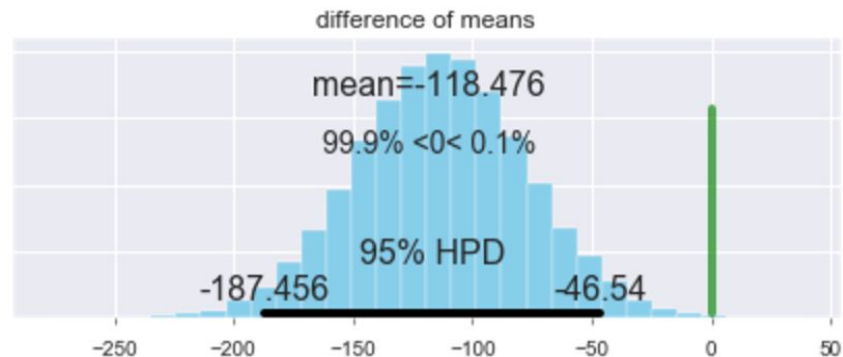
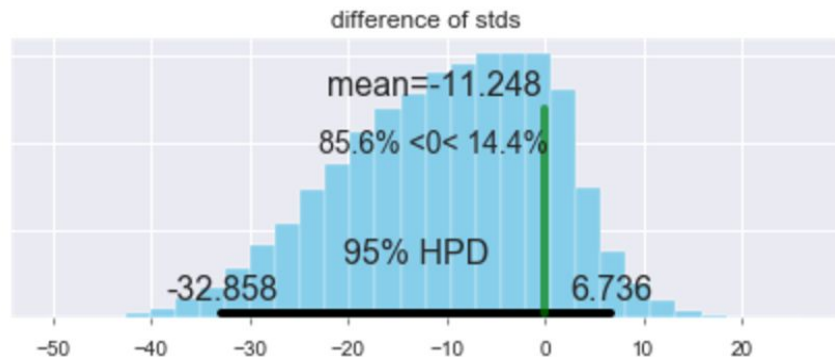
Civilian Attacks in Pakistan



Posterior Distribution of Standard Deviations and Means



Difference in Mean



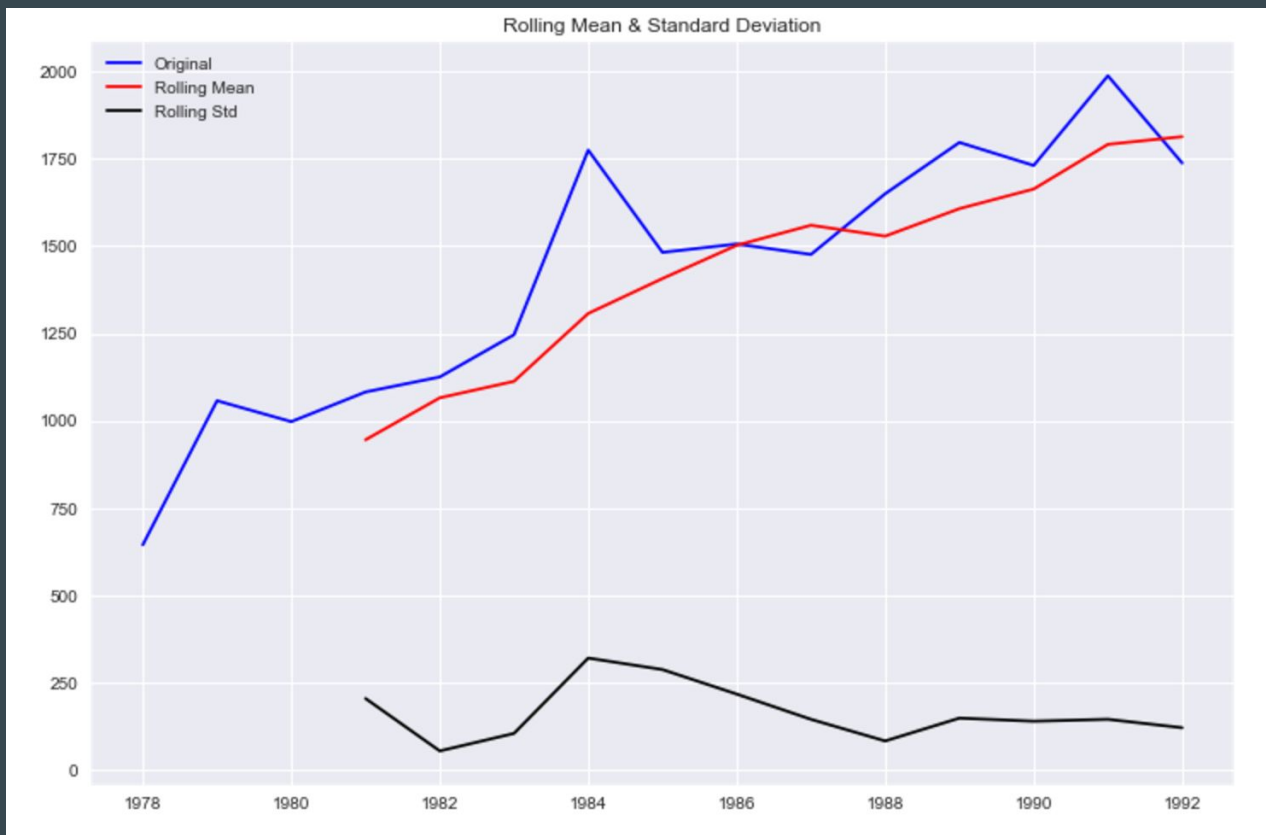
Conclusion

The overlap of means does not fall within the credible interval.

We can conclude the samples are from two different populations.

Imputing 1993 Data

Would an ARIMA Model be Possible?



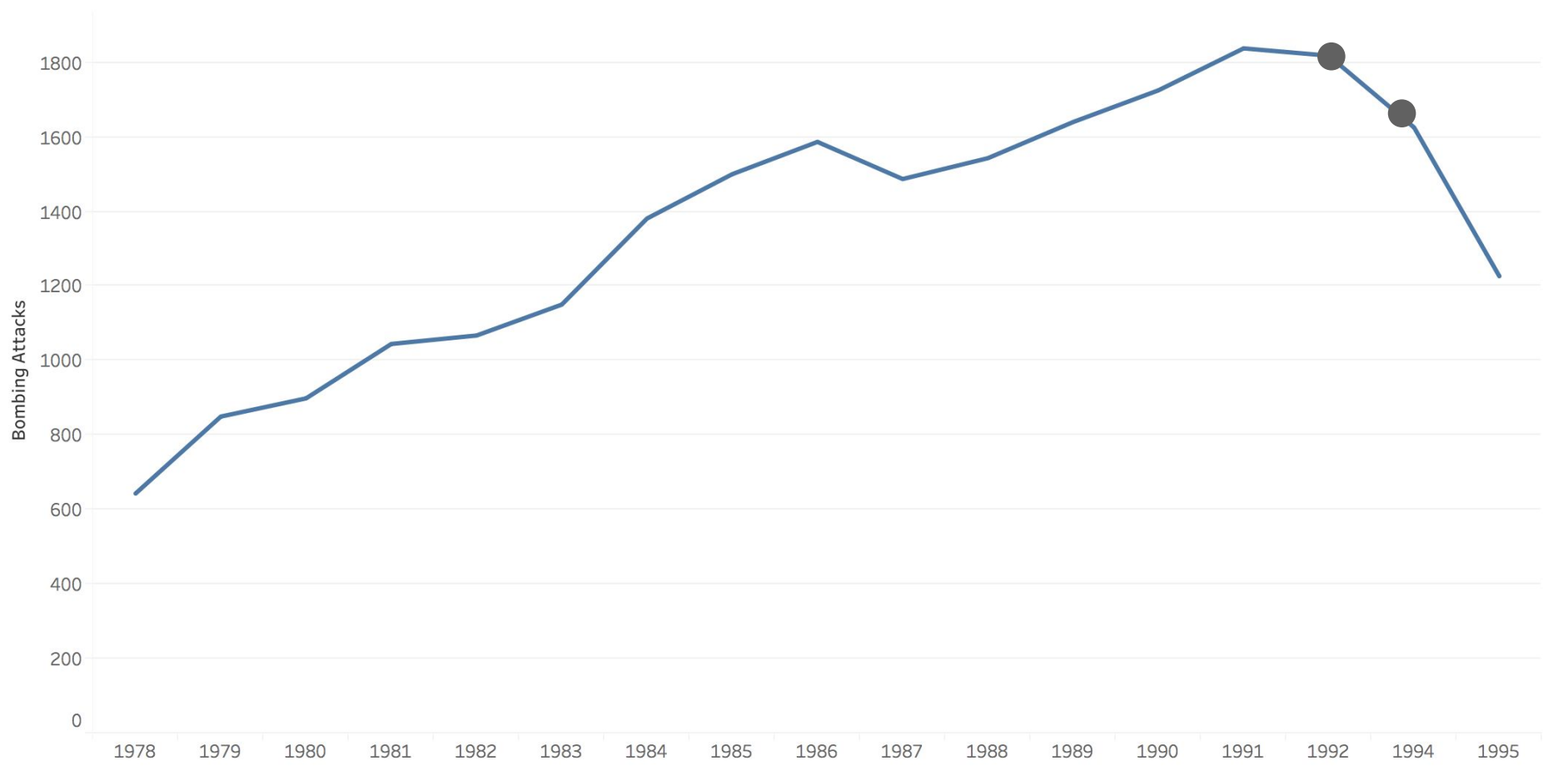
Yes.....



...but maybe there's a simpler way...

Bombings Per Year - Moving Average

1978-1995



Average the Rolling Mean at a Window of 2 (not central)

$$\frac{1863.0 + 1445.5}{2} = 1654.25$$

Questions