

Deadly Dates

The Effect of Holy Days on Terrorism

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April 4, 2019

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Question

How do Islamic holy days affect the incidence of terror attacks?

Evidence for an Increase

“Jihad fighters... [t]his month of Jihad (Ramadan) has come with all its blessings and with the double reward [granted to Jihad fighters] in its course. Come closer to Allah through the blood of infidels, do not relent in spilling [their blood]...!”

*-Saud Bin Hamoud al-Utaybi
Senior Member of AQAP*

Evidence for a Decrease

- Ashura commemoration in Karbala, Iraq (2012)
 - 2 million+ pilgrims gathered in Karbala for the holiday
 - No attacks occurred



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 - Civilian sensitivities to violence (Reese et al., 2017)
 - Religious respect (Hassner 2011)

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 - Decreased likelihood during **short holidays** (e.g. Eid al-Adha)
 - Increased likelihood during **long holidays** (e.g. Ramadan)

Theory

Theory - Substitution Effects

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- I apply this argument to holidays (temporal targets), not physical sites

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 - Challenges government legitimacy

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 - Leads to heterogenous holiday effect

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- Muharram & Ashura in Pakistan

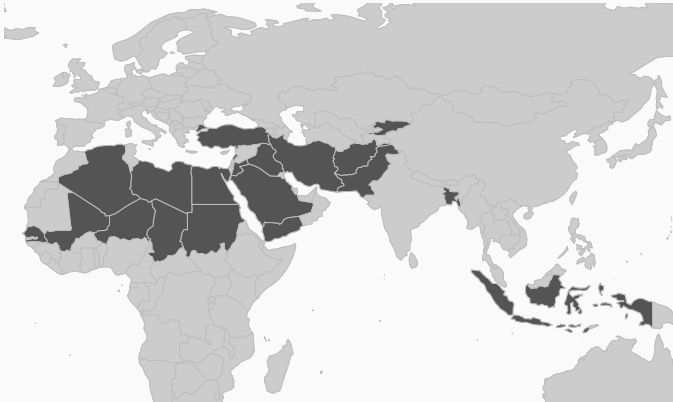
Hypotheses

	Day Type	Expectation
	Non-holiday	Baseline
H1:	Short Islamic Holiday	↓
H2:	Long Islamic Holiday	↑

Data

Data

- 20 countries (2001-2016)
 - >50% Muslim & >50th percentile of terror attacks



Data

- Unit: Country-days
- 95,000 observations
- Controls
 - Weather: Temperature, Precipitation
 - Geography: Elevation, Land Area (km²)
 - Conflict: Battlefield violence_{t-1}, Civil War
 - Socioeconomic: GDP, Population (km²), Ethnic Groups

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 - 17% of observations experience a terror attack

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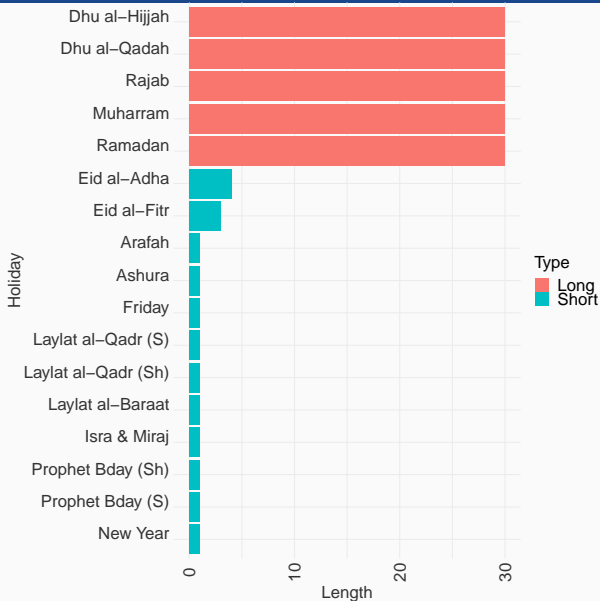
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 - Non-holidays: 48% (baseline)
 - Short Holidays: 18%
 - Long Holidays: 33%
- Timing of holidays relies on Saudi Arabia's Umm al-Qura calendar

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Model

Multilevel Model

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- Data exhibit a clear hierarchical structure
 - Predictors at different levels: population and temperature

$$p(y_{ijk} = 1) = \text{logit}^{-1}(\beta_0 + \beta_1 \cdot X_{1ijk} + \beta_2 \cdot X_{2jk} + \beta_3 \cdot X_{3k} + \text{countryyear}_{jk} + \text{country}_k)$$

Results

Logistic Regression Results

Expectation	Day Type
H1: ↓	Short Holiday

*p < .05

Logistic Regression Results

Expectation	Day Type	Coef
H1: ↓	Short Holiday	-0.12*

* $p < .05$

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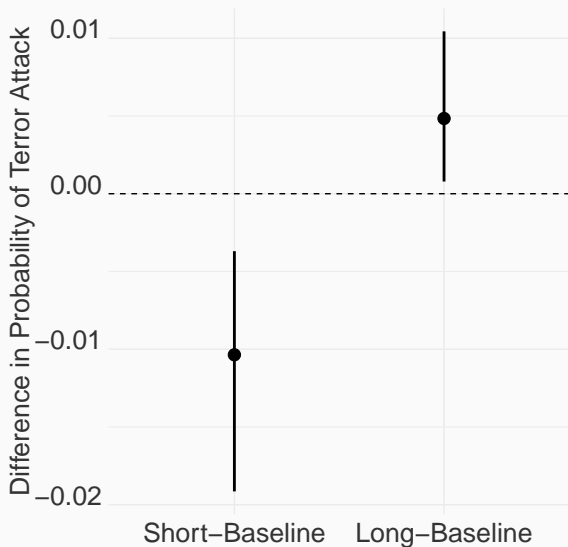
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Logistic Regression Results

Expectation	Day Type	Coef	SE
H1: ↓	Short Holiday	-0.12*	0.037
H2: ↑	Long Holiday	0.07*	0.031

* $p < .05$

First Differences



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