

# Final Project - Data Management with R

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Armed conflicts in Asia and Africa (2015-16)



Figure 1:

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## Prerequisites

```
library(readxl)
library(dplyr)
library(ggplot2)
library(ggmap)
library(knitr)
```

## Introduction

## Importing the dataset

## Data Cleaning

## Preliminary Analysis

## Regression Analysis

## Interactive Visualization

## Discussion

## Conclusion

## Appendix

Table 1: Regression Table for Asia and Africa combined

Dependent variable: Fatalities

Variable	Model 1	Model 2	Model 3
<b>Continent</b>			
Asia	-1.579*** (0.07)	-0.403*** (0.07)	-0.479*** (0.07)
<b>Actor Type (a)</b>			
Ethnic Militia		2.183*** (0.52)	1.115* (0.52)
Government/Mutinous Force		1.978*** (0.51)	1.257* (0.51)
Outside/External Force		2.640*** (0.54)	1.777** (0.54)
Political Militia		0.533 (0.51)	-0.051 (0.50)
Protestors		-0.631 (0.50)	-0.364 (0.55)
Rebel Force		4.892*** (0.52)	4.016*** (0.52)
Rioters		-0.531 (0.50)	-0.303 (0.55)
<b>Event Type (b)</b>			
Battle - No Change of trty			-2.159*** (0.33)
Battle-Non-state actr wins trty			2.290*** (0.58)
Headquarters or base established			-6.720*** (1.53)
Non-violent transfer of trty			-6.492*** (0.56)
Remote Violence			-3.831*** (0.35)
Riots/Protests			-4.177*** (0.41)
Strategic Development			-5.843*** (0.35)
Violence against civilians			-3.302*** (0.34)
<b>Intercept</b>	-1.900*** (0.04)	0.903 (0.50)	4.852*** (0.60)
<b>N</b>	59436	59436	59436
<b>Adjusted R- squared</b>	0.01	0.041	0.055

Collinearity: (a) Civilian group excluded; (b) Battle - Government regains territory excluded

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

Table 2: Regression Table for Africa

Dependent variable: Fatalities

Variable	Model 1	Model 2	Model 3
<b>Actor Type (a)</b>			
Ethnic Militia	3.376 (2.63)	0.298 (2.62)	-0.097 (2.61)
Government/Mutinous Force	2.854 (2.63)	0.147 (2.61)	0.014 (2.60)
Outside/External Force	4.107 (2.64)	1.298 (2.63)	2.322 (2.62)
Political Militia	1.313 (2.63)	-1.143 (2.61)	-1.275 (2.60)
Protestors	1.957 (2.63)	-1.558 (2.64)	-2.005 (2.63)
Rebel Force	6.827** (2.63)	3.930 (2.62)	3.357 (2.61)
Rioters	2.526 (2.63)	-1.357 (2.64)	-1.669 (2.63)
<b>Event Type (b)</b>			
Battle - No Change of trty		-2.017*** (0.44)	-1.149** (0.45)
Battle-Non-state actr wins trty		1.954** (0.74)	3.055*** (0.74)
Headquarters or base established		-7.212*** (1.96)	-6.193** (1.95)
Non-violent transfer of trty		-6.903*** (0.72)	-5.731*** (0.72)
Remote Violence		-4.134*** (0.47)	-3.407*** (0.47)
Riots/Protests		-4.477*** (0.56)	-3.964*** (0.56)
Strategic Development		-6.030*** (0.46)	-5.262*** (0.48)
Violence against civilians		-3.486*** (0.45)	-2.949*** (0.45)
<b>Intercept</b>	1.200 (2.63)	6.029* (2.65)	5.479* (2.66)
<b>N</b>	35072	35072	35072
<b>Adjusted R- squared</b>	0.034	0.049	0.063

Collinearity: (a) Civilian group excluded; (b) Battle - Government regains territory excluded

Model 3 controls for the country

\*p &lt; 0.05; \*\*p &lt; 0.01; \*\*\*p &lt; 0.001

Table 3: Regression Table for Asia

Dependent variable: Fatalities

Variable	Model 1	Model 2	Model 3
<b>Actor Type (a)</b>			
Ethnic Militia	0.343 (0.18)	0.015 (0.19)	-0.088 (0.19)
Government/Mutinous Force	2.176*** (0.16)	1.951*** (0.17)	1.564*** (0.17)
Outside/External Force	0.203 (0.20)	-0.150 (0.21)	-0.497* (0.21)
Political Militia	0.908*** (0.15)	0.617*** (0.16)	0.272 (0.16)
Protestors	-0.552*** (0.15)	-0.088 (0.21)	-0.422* (0.21)
Rebel Force	1.107*** (0.17)	0.810*** (0.17)	0.626*** (0.18)
Rioters	-0.460** (0.15)	-0.010 (0.21)	-0.242 (0.21)
<b>Event Type (b)</b>			
Battle - No Change of trty		-0.367 (0.37)	-0.709 (0.37)
Battle-Non-state actr wins trty		-3.360 (2.23)	-3.698 (2.21)
Non-violent transfer of trty		-1.642 (1.60)	-1.811 (1.58)
Remote Violence		-0.313 (0.38)	-0.574 (0.38)
Riots/Protests		-1.320** (0.40)	-1.579*** (0.40)
Strategic Development		-2.418*** (0.39)	-2.664*** (0.39)
Violence against civilians		-0.695 (0.37)	-0.945* (0.38)
<b>Intercept</b>	0.555*** (0.15)	1.408*** (0.40)	1.736*** (0.41)
<b>N</b>	24366	24366	24366
<b>Adjusted R- squared</b>	0.089	0.098	0.114

Collinearity: (a) Civilian group excluded; (b) Battle - Government regains territory excluded

Model 3 controls for the country

\*p &lt; 0.05; \*\*p &lt; 0.01; \*\*\*p &lt; 0.001