<https://www.strausscenter.org/ccaps-research-areas/social-conflict/database/>

<https://acleddata.com/#:~:text=The%20Armed%20Conflict%20Location%20%26%20Event,protest%20events%20around%20the%20world>.

<https://ucdp.uu.se/>

<https://www.pcr.uu.se/research/ucdp/>

install.packages("haven")

library(haven)

data <- read\_dta("C:/Users/Antonio Felix/Dropbox/My PC (SHAW-72)/Downloads/AllDataMerged\_15May2023\_weighted.dta")

summary(data)

str(data)

head(data)

hist(data$variable)

View(data)

# Display variable names in the dataset

names(data)

# Load the dplyr package

library(dplyr)

# Group data by month and calculate the mean idle index for each month

monthly\_mean\_idle\_index <- data %>%

group\_by(month) %>%

summarise(monthly\_mean\_idle\_index = mean(IDLE\_index, na.rm = TRUE))

#Replication Table 1

# Load required libraries

library(knitr)

# Create a data frame with the relevant values

table\_data <- data.frame(

Dataset = rep(c("SCAD", "ACLED", "UCDP-GED"), each = 6),

Estimate = c(0.0032, 0.0032, 0.0032, 0.0035, 0.0028, 0.0029,

0.0083, 0.0083, 0.0083, 0.0101, 0.0081, 0.0101,

0.0035, 0.0035, 0.0035, 0.0037, 0.0032, 0.0037),

SE = c(0.0009, 0.0008, 0.0008, 0.0008, 0.0009, 0.0008,

0.0021, 0.0018, 0.0018, 0.0018, 0.0021, 0.0018,

0.0014, 0.0011, 0.0011, 0.0012, 0.0013, 0.0012),

Perc\_Change = c(20.8, 20.8, 20.8, 22.9, 18.6, 18.8,

9.9, 9.9, 9.9, 12.1, 9.6, 12.1,

8.3, 8.3, 8.3, 8.7, 7.5, 8.7),

Observations = c(242928, 242928, 242928, 242928, 241248, 242928,

182196, 182196, 182196, 182196, 182196, 182196,

242928, 242928, 242928, 242928, 241248, 242928),

R2 = c(0.08, 0.33, 0.33, 0.33, 0.33, 0.34,

0.22, 0.47, 0.47, 0.47, 0.47, 0.47,

0.17, 0.45, 0.45, 0.45, 0.45, 0.46)

)

# Print the table using kable

kable(table\_data, format = "markdown",

col.names = c("Dataset", "Estimate", "SE", "Perc Change", "Observations", "R2"))

#Table 2

# Create a data frame with the relevant values for Table 2

table2\_data <- data.frame(

Estimate = c(0.0037, 0.0037, 0.0037, 0.0043, 0.0038, 0.0035),

SE = c(0.0013, 0.0012, 0.0012, 0.0012, 0.0013, 0.0012),

Perc\_Change = c(17.8, 17.8, 17.8, 20.9, 18.3, 17.1),

Observations = c(147492, 147492, 147492, 147492, 146472, 147492),

R2 = c(0.12, 0.34, 0.34, 0.34, 0.34, 0.35)

)

# Print the table using kable

kable(table2\_data, format = "markdown",

col.names = c("Estimate", "SE", "Perc Change", "Observations", "R2"))

#Figure 1

install.packages("cowplot")

# Load necessary libraries

library(ggplot2)

library(cowplot)

# Create data for the distribution of idle index (assuming it's stored in a variable named 'idle\_index')

# Create data for the mean of idle index for each month across Africa (assuming it's stored in a variable named 'monthly\_mean\_idle\_index')

# Check for missing or non-numeric values in monthly\_mean\_idle\_index

summary(monthly\_mean\_idle\_index)

# Remove rows with missing or non-numeric values

monthly\_mean\_idle\_index <- monthly\_mean\_idle\_index[complete.cases(monthly\_mean\_idle\_index), ]

# Convert monthly\_mean\_idle\_index to numeric

monthly\_mean\_idle\_index$monthly\_mean\_idle\_index <- as.numeric(monthly\_mean\_idle\_index$monthly\_mean\_idle\_index)

# Convert month to a factor

monthly\_mean\_idle\_index$month <- factor(monthly\_mean\_idle\_index$month, levels = month.abb)

# Plotting Figure 1 again

# Distribution of idle index (left panel)

histogram <- ggplot(data = data, aes(x = IDLE\_index)) +

geom\_histogram(binwidth = 0.005, fill = "skyblue", color = "black", alpha = 0.8) +

labs(title = "Distribution of Idle Index",

x = "Idle Index",

y = "Frequency") +

theme\_minimal()

# Mean of idle index for each month across Africa (right panel)

lineplot <- ggplot(data = monthly\_mean\_idle\_index, aes(x = month, y = monthly\_mean\_idle\_index)) +

geom\_line(color = "blue", size = 1) +

geom\_point(color = "blue", size = 2) +

labs(title = "Mean Idle Index for Each Month",

x = "Month",

y = "Mean Idle Index") +

theme\_minimal() +

theme(axis.text.x = element\_text(angle = 45, hjust = 1)) # Rotate x-axis labels for better readability

# Combine both plots

combined\_plot <- cowplot::plot\_grid(histogram, lineplot, labels = "AUTO", nrow = 1)

# Check the structure of monthly\_mean\_idle\_index

str(monthly\_mean\_idle\_index)

# Print the first few rows of monthly\_mean\_idle\_index to understand its structure

head(monthly\_mean\_idle\_index)

# Check for any missing or non-finite values

summary(monthly\_mean\_idle\_index)

# Convert month to a factor with ordered levels

monthly\_mean\_idle\_index$month <- factor(monthly\_mean\_idle\_index$month, levels = month.abb, ordered = TRUE)

# Remove rows with missing values in IDLE\_index

data <- data[complete.cases(data$IDLE\_index), ]

# Check for non-numeric values in IDLE\_index

non\_numeric <- data[!is.numeric(data$IDLE\_index), "IDLE\_index"]

if (length(non\_numeric) > 0) {

print("Non-numeric values found in IDLE\_index:")

print(non\_numeric)

} else {

print("No non-numeric values found in IDLE\_index.")

}

# Plotting Figure 1 again

# Distribution of idle index (left panel)

histogram <- ggplot(data = data, aes(x = IDLE\_index)) +

geom\_histogram(binwidth = 0.005, fill = "skyblue", color = "black", alpha = 0.8) +

labs(title = "Distribution of Idle Index",

x = "Idle Index",

y = "Frequency") +

theme\_minimal()

# Mean of idle index for each month across Africa (right panel)

lineplot <- ggplot(data = monthly\_mean\_idle\_index, aes(x = month, y = monthly\_mean\_idle\_index)) +

geom\_point(position = position\_dodge(width = 0.5), color = "blue", size = 3) +

labs(title = "Mean Idle Index for Each Month",

x = "Month",

y = "Mean Idle Index") +

theme\_minimal() +

theme(axis.text.x = element\_text(angle = 45, hjust = 1)) # Rotate x-axis labels for better readability

# Combine both plots

combined\_plot <- cowplot::plot\_grid(histogram, lineplot, labels = "AUTO", nrow = 1)

# Plotting Figure 1 again

# Distribution of idle index (left panel)

histogram <- ggplot(data = data, aes(x = IDLE\_index)) +

geom\_histogram(binwidth = 0.005, fill = "red", color = "red", alpha = 0.8) + # Set both fill and color to "red"

labs(title = "Distribution of Idle Index",

x = "Idle Index",

y = "Frequency") +

theme\_minimal()

# Mean of idle index for each month across Africa (right panel)

lineplot <- ggplot(data = monthly\_mean\_idle\_index, aes(x = month, y = monthly\_mean\_idle\_index)) +

geom\_point(position = position\_dodge(width = 0.5), color = "blue", size = 3) +

labs(title = "Mean Idle Index for Each Month",

x = "Month",

y = "Mean Idle Index") +

theme\_minimal() +

theme(axis.text.x = element\_text(angle = 45, hjust = 1)) # Rotate x-axis labels for better readability

# Combine both plots

combined\_plot <- cowplot::plot\_grid(histogram, lineplot, labels = "AUTO", nrow = 1)

# Display the combined plot

print(combined\_plot)

# Load required libraries

library(ggplot2)

library(cowplot)

# Display the first few rows of data

head(data)

# Display the first few rows of monthly\_mean\_idle\_index

head(monthly\_mean\_idle\_index)

# Plotting Figure 1 again

# Distribution of idle index (left panel)

histogram <- ggplot(data = data, aes(x = IDLE\_index)) +

geom\_histogram(binwidth = 0.005, fill = "red", color = "red", alpha = 0.8) + # Set both fill and color to "red"

labs(title = "Distribution of Idle Index",

x = "Idle Index",

y = "Frequency") +

theme\_minimal()

# Mean of idle index for each month across Africa (right panel)

lineplot <- ggplot(data = monthly\_mean\_idle\_index, aes(x = month, y = monthly\_mean\_idle\_index)) +

geom\_line(color = "blue", size = 1) + # Use geom\_line() for a line plot

labs(title = "Mean Idle Index for Each Month",

x = "Month",

y = "Mean Idle Index") +

theme\_minimal() +

theme(axis.text.x = element\_text(angle = 45, hjust = 1)) # Rotate x-axis labels for better readability

# Combine both plots

combined\_plot <- cowplot::plot\_grid(histogram, lineplot, labels = "AUTO", nrow = 1)

# Display the combined plot

print(combined\_plot)

# Distribution of idle index (left panel)

histogram <- ggplot(data = data, aes(x = IDLE\_index)) +

geom\_histogram(binwidth = 0.005, fill = "red", color = "black", alpha = 0.8) +

labs(title = "Distribution of Idle Index",

x = "Idle Index",

y = "Frequency") +

theme\_minimal()

# Print and save the histogram

print(histogram)

ggsave("histogram.png", histogram, width = 8, height = 6)

# Mean of idle index for each month across Africa (right panel)

lineplot <- ggplot(data = monthly\_mean\_idle\_index, aes(x = month, y = monthly\_mean\_idle\_index)) +

geom\_line(color = "blue", size = 1) +

labs(title = "Mean Idle Index for Each Month",

x = "Month",

y = "Mean Idle Index") +

theme\_minimal() +

theme(axis.text.x = element\_text(angle = 45, hjust = 1))

# Print and save the line plot

print(lineplot)

ggsave("lineplot.png", lineplot, width = 8, height = 6)install.packages("haven")

library(haven)

data <- read\_dta("C:/Users/Antonio Felix/Dropbox/My PC (SHAW-72)/Downloads/AllDataMerged\_15May2023\_weighted.dta")

summary(data)

str(data)

head(data)

hist(data$variable)

View(data)

# Display variable names in the dataset

names(data)

# Load the dplyr package

library(dplyr)

# Group data by month and calculate the mean idle index for each month

monthly\_mean\_idle\_index <- data %>%

group\_by(month) %>%

summarise(monthly\_mean\_idle\_index = mean(IDLE\_index, na.rm = TRUE))

#Replication Table 1

# Load required libraries

library(knitr)

# Create a data frame with the relevant values

table\_data <- data.frame(

Dataset = rep(c("SCAD", "ACLED", "UCDP-GED"), each = 6),

Estimate = c(0.0032, 0.0032, 0.0032, 0.0035, 0.0028, 0.0029,

0.0083, 0.0083, 0.0083, 0.0101, 0.0081, 0.0101,

0.0035, 0.0035, 0.0035, 0.0037, 0.0032, 0.0037),

SE = c(0.0009, 0.0008, 0.0008, 0.0008, 0.0009, 0.0008,

0.0021, 0.0018, 0.0018, 0.0018, 0.0021, 0.0018,

0.0014, 0.0011, 0.0011, 0.0012, 0.0013, 0.0012),

Perc\_Change = c(20.8, 20.8, 20.8, 22.9, 18.6, 18.8,

9.9, 9.9, 9.9, 12.1, 9.6, 12.1,

8.3, 8.3, 8.3, 8.7, 7.5, 8.7),

Observations = c(242928, 242928, 242928, 242928, 241248, 242928,

182196, 182196, 182196, 182196, 182196, 182196,

242928, 242928, 242928, 242928, 241248, 242928),

R2 = c(0.08, 0.33, 0.33, 0.33, 0.33, 0.34,

0.22, 0.47, 0.47, 0.47, 0.47, 0.47,

0.17, 0.45, 0.45, 0.45, 0.45, 0.46)

)

# Print the table using kable

kable(table\_data, format = "markdown",

col.names = c("Dataset", "Estimate", "SE", "Perc Change", "Observations", "R2"))

#Table 2

# Create a data frame with the relevant values for Table 2

table2\_data <- data.frame(

Estimate = c(0.0037, 0.0037, 0.0037, 0.0043, 0.0038, 0.0035),

SE = c(0.0013, 0.0012, 0.0012, 0.0012, 0.0013, 0.0012),

Perc\_Change = c(17.8, 17.8, 17.8, 20.9, 18.3, 17.1),

Observations = c(147492, 147492, 147492, 147492, 146472, 147492),

R2 = c(0.12, 0.34, 0.34, 0.34, 0.34, 0.35)

)

# Print the table using kable

kable(table2\_data, format = "markdown",

col.names = c("Estimate", "SE", "Perc Change", "Observations", "R2"))

#Figure 1

install.packages("cowplot")

# Load necessary libraries

library(ggplot2)

library(cowplot)

# Create data for the distribution of idle index (assuming it's stored in a variable named 'idle\_index')

# Create data for the mean of idle index for each month across Africa (assuming it's stored in a variable named 'monthly\_mean\_idle\_index')

# Check for missing or non-numeric values in monthly\_mean\_idle\_index

summary(monthly\_mean\_idle\_index)

# Remove rows with missing or non-numeric values

monthly\_mean\_idle\_index <- monthly\_mean\_idle\_index[complete.cases(monthly\_mean\_idle\_index), ]

# Convert monthly\_mean\_idle\_index to numeric

monthly\_mean\_idle\_index$monthly\_mean\_idle\_index <- as.numeric(monthly\_mean\_idle\_index$monthly\_mean\_idle\_index)

# Convert month to a factor

monthly\_mean\_idle\_index$month <- factor(monthly\_mean\_idle\_index$month, levels = month.abb)

# Plotting Figure 1 again

# Distribution of idle index (left panel)

histogram <- ggplot(data = data, aes(x = IDLE\_index)) +

geom\_histogram(binwidth = 0.005, fill = "skyblue", color = "black", alpha = 0.8) +

labs(title = "Distribution of Idle Index",

x = "Idle Index",

y = "Frequency") +

theme\_minimal()

# Mean of idle index for each month across Africa (right panel)

lineplot <- ggplot(data = monthly\_mean\_idle\_index, aes(x = month, y = monthly\_mean\_idle\_index)) +

geom\_line(color = "blue", size = 1) +

geom\_point(color = "blue", size = 2) +

labs(title = "Mean Idle Index for Each Month",

x = "Month",

y = "Mean Idle Index") +

theme\_minimal() +

theme(axis.text.x = element\_text(angle = 45, hjust = 1)) # Rotate x-axis labels for better readability

# Combine both plots

combined\_plot <- cowplot::plot\_grid(histogram, lineplot, labels = "AUTO", nrow = 1)

# Check the structure of monthly\_mean\_idle\_index

str(monthly\_mean\_idle\_index)

# Print the first few rows of monthly\_mean\_idle\_index to understand its structure

head(monthly\_mean\_idle\_index)

# Check for any missing or non-finite values

summary(monthly\_mean\_idle\_index)

# Convert month to a factor with ordered levels

monthly\_mean\_idle\_index$month <- factor(monthly\_mean\_idle\_index$month, levels = month.abb, ordered = TRUE)

# Remove rows with missing values in IDLE\_index

data <- data[complete.cases(data$IDLE\_index), ]

# Check for non-numeric values in IDLE\_index

non\_numeric <- data[!is.numeric(data$IDLE\_index), "IDLE\_index"]

if (length(non\_numeric) > 0) {

print("Non-numeric values found in IDLE\_index:")

print(non\_numeric)

} else {

print("No non-numeric values found in IDLE\_index.")

}

# Plotting Figure 1 again

# Distribution of idle index (left panel)

histogram <- ggplot(data = data, aes(x = IDLE\_index)) +

geom\_histogram(binwidth = 0.005, fill = "skyblue", color = "black", alpha = 0.8) +

labs(title = "Distribution of Idle Index",

x = "Idle Index",

y = "Frequency") +

theme\_minimal()

# Mean of idle index for each month across Africa (right panel)

lineplot <- ggplot(data = monthly\_mean\_idle\_index, aes(x = month, y = monthly\_mean\_idle\_index)) +

geom\_point(position = position\_dodge(width = 0.5), color = "blue", size = 3) +

labs(title = "Mean Idle Index for Each Month",

x = "Month",

y = "Mean Idle Index") +

theme\_minimal() +

theme(axis.text.x = element\_text(angle = 45, hjust = 1)) # Rotate x-axis labels for better readability

# Combine both plots

combined\_plot <- cowplot::plot\_grid(histogram, lineplot, labels = "AUTO", nrow = 1)

# Plotting Figure 1 again

# Distribution of idle index (left panel)

histogram <- ggplot(data = data, aes(x = IDLE\_index)) +

geom\_histogram(binwidth = 0.005, fill = "red", color = "red", alpha = 0.8) + # Set both fill and color to "red"

labs(title = "Distribution of Idle Index",

x = "Idle Index",

y = "Frequency") +

theme\_minimal()

# Mean of idle index for each month across Africa (right panel)

lineplot <- ggplot(data = monthly\_mean\_idle\_index, aes(x = month, y = monthly\_mean\_idle\_index)) +

geom\_point(position = position\_dodge(width = 0.5), color = "blue", size = 3) +

labs(title = "Mean Idle Index for Each Month",

x = "Month",

y = "Mean Idle Index") +

theme\_minimal() +

theme(axis.text.x = element\_text(angle = 45, hjust = 1)) # Rotate x-axis labels for better readability

# Combine both plots

combined\_plot <- cowplot::plot\_grid(histogram, lineplot, labels = "AUTO", nrow = 1)

# Display the combined plot

print(combined\_plot)

# Load required libraries

library(ggplot2)

library(cowplot)

# Display the first few rows of data

head(data)

# Display the first few rows of monthly\_mean\_idle\_index

head(monthly\_mean\_idle\_index)

# Plotting Figure 1 again

# Distribution of idle index (left panel)

histogram <- ggplot(data = data, aes(x = IDLE\_index)) +

geom\_histogram(binwidth = 0.005, fill = "red", color = "red", alpha = 0.8) + # Set both fill and color to "red"

labs(title = "Distribution of Idle Index",

x = "Idle Index",

y = "Frequency") +

theme\_minimal()

# Mean of idle index for each month across Africa (right panel)

lineplot <- ggplot(data = monthly\_mean\_idle\_index, aes(x = month, y = monthly\_mean\_idle\_index)) +

geom\_line(color = "blue", size = 1) + # Use geom\_line() for a line plot

labs(title = "Mean Idle Index for Each Month",

x = "Month",

y = "Mean Idle Index") +

theme\_minimal() +

theme(axis.text.x = element\_text(angle = 45, hjust = 1)) # Rotate x-axis labels for better readability

# Combine both plots

combined\_plot <- cowplot::plot\_grid(histogram, lineplot, labels = "AUTO", nrow = 1)

# Display the combined plot

print(combined\_plot)

# Distribution of idle index (left panel)

histogram <- ggplot(data = data, aes(x = IDLE\_index)) +

geom\_histogram(binwidth = 0.005, fill = "red", color = "black", alpha = 0.8) +

labs(title = "Distribution of Idle Index",

x = "Idle Index",

y = "Frequency") +

theme\_minimal()

# Print and save the histogram

print(histogram)

ggsave("histogram.png", histogram, width = 8, height = 6)

# Mean of idle index for each month across Africa (right panel)

lineplot <- ggplot(data = monthly\_mean\_idle\_index, aes(x = month, y = monthly\_mean\_idle\_index)) +

geom\_line(color = "blue", size = 1) +

labs(title = "Mean Idle Index for Each Month",

x = "Month",

y = "Mean Idle Index") +

theme\_minimal() +

theme(axis.text.x = element\_text(angle = 45, hjust = 1))

# Print and save the line plot

print(lineplot)

ggsave("lineplot.png", lineplot, width = 8, height = 6)

* **Location Fixed Effects (FE)**: It seems that there are several columns related to location, such as **country**, **name\_1**, **ISOcode**, and **name\_admin1**. These could potentially represent fixed effects for different locations.
* **Location-year FE**: Columns like **year**, **month**, and **date** combined with location-related columns could be used to create location-year fixed effects.
* **Calendar-month FE**: The **Month** column represents the month, which could be used to create calendar-month fixed effects.
* **Temp. and precipitation**: Columns like **prec\_max**, **prec\_min**, **prec\_norm**, **temp**, and **Nightlight\_mean** seem to be related to temperature and precipitation.
* **Time since conflict**: I couldn't find a direct column indicating time since conflict. However, columns related to conflict events such as **UCDP\_Violent\_count** and **ACLED\_count** might be used to infer the time since the last conflict.