Replication - Agricultural idle time and armed conflict

Applied Stats II

Due: March 31, 2024

Introduction

The aim of this project is to replicate the main figures and tables of the main findings found in the manuscript. Understand the method and approach used in the research and re-analyse the study using the knowledge gained from Stats I and Stats II with the aim to make a contribution.

The scope of this project is on files: "Readme.txt" the instructions for a replication success, "DHR 2023 replicationA.do" the code used to create the main tables and figures, and ALLDataMerged 15May2023 weigted.dta the dataset that serves as repository because contains the SCAD, ACLED and UCDP-GED datasets combined.

In the next sessions you will find a brief explanation of the journal, the steps in the process of replication, and you also going to find the code in R and Stata to produce the main tables.

Research Question

The study aims to investigate the relationship between agricultural idle time and armed conflict in African countries.

Theoretical Hypothesis

Higher levels of agricultural idle time will be positively associated with the likelihood of observing armed conflict events.

Data Collection

The academic paper of Agricultural idle time and armed conflict and its replication files can be found in Harvard Dataverse. Here there is a list of the files found it and the possible outcome of each of them:

- Africa admin1.dbf: This is a dBASE Table file for an ESRI Shapefile. Shapefiles are a common format used in geographic information systems (GIS) for storing geospatial vector data.

- Africa admin1.shp: This file contains the main geometry data in ESRI Shapefile format. It likely represents administrative boundaries or other geographical features relevant to the study.

- Africa admin1.shx: This file contains the shape index data for the ESRI Shapefile. It helps link the geometry information in the .shp file to attribute data in the .dbf file.

- AllDataMerged 15May2023 weighted.dta: This is a Stata binary file (.dta) containing merged data used in the analysis. It seems to be the primary dataset for the study.

- btscs-a-binary-time STATA.pdf: This PDF file might contain additional information, such as the methodology, results, or supplementary analyses conducted in Stata.

- btscs.rar: This is a compressed archive file (.rar) that likely contains additional Stata do-files or other supplementary materials related to the analysis.

- DHR 2023 LogFile.smcl: This file is written in Stata Markup and Control Language (SMCL) and may contain log output from the Stata analyses conducted for the paper.

- DHR 2023 replicationA.do: This is a Stata do-file (.do) containing replication code or commands used for one part of the analysis.

- DHR 2023 replicationB Map.do: Another Stata do-file (.do) containing replication code or commands, possibly related to mapping or visualizations.

- ReadMe.txt: This plain text file likely contains instructions, explanations, or metadata related to the data and supplementary files.

Summary of Datasets Used:

- The Social Conflict Analysis Database (SCAD) includes protests, riots, strikes, inter-communal conflict, government violence against civilians, and other forms of social conflict not systematically tracked in other conflict datasets.

- The Armed Conflict Location and Event Data Project (ACLED) collects real-time data on the locations, dates, actors, fatalities, and types of all reported political violence and protest events around the world.

- Uppsala Conflict Data Program-Georeferenced Event Dataset (UCDP-GED) is the world's main provider of data on organized violence and the oldest ongoing data collection project for civil war, with a history of almost 40 years. Its definition of armed conflict has become the global standard of how conflicts are systematically defined and studied.

- Crop Location Data

- Crop Calendar Charts

Loading and Preprocessing the Data

Due to the lack of information in the dataset I had to navigate into the data and get familiar with it.

```
1
2  # load data
3  data <- read_dta("C:/Users/Antonio Felix/Dropbox/My PC (SHAW-72)/Downloads/
     AllDataMerged_15May2023_weighted.dta")
4
5  # Check the structure of the dataset
6  str(data)
7
8  # Getting familiar with the data
9  View(data)
10
11 # Understand the type of variables I have
12 head(data)
13
14 # Summarize the data
15 summary(data)
16
```

```
 tibble [277,872 × 210] (S3: tbl_df/tbl/data.frame)
  $ objectid                  : num [1:277872] 65 65 65 65 65 65 65 65 65 65 ...
 ..- attr(*, "label")= chr "OBJECTID"
 ..- attr(*, "format.stata")= chr "%8.0g"
 $ month                      : chr [1:277872] "Jan" "Feb" "Mar" "Apr" ...
 ..- attr(*, "format.stata")= chr "%9s"
 $ time_month                 : chr [1:277872] "Jan 1990" "Feb 1990" "Mar 1990"
```

```
 objectid month time_month name_0  name_1 shape_area ISOcode country cultivated
<dbl> <chr> <chr>      <chr>   <chr>       <dbl> <chr>   <chr>          <dbl>
1      65 Jan   Jan 1990   Algeria AÃ¯n ...      0.456 DZA     Algeria        81.7
2      65 Feb   Feb 1990   Algeria AÃ¯n ...      0.456 DZA     Algeria        81.7
3      65 Mar   Mar 1990   Algeria AÃ¯n ...      0.456 DZA     Algeria        81.7
4      65 Apr   Apr 1990   Algeria AÃ¯n ...      0.456 DZA     Algeria        81.7
5      65 May   May 1990   Algeria AÃ¯n ...      0.456 DZA     Algeria        81.7
6      65 Jun   Jun 1990   Algeria AÃ¯n ...      0.456 DZA     Algeria        81.7
# 201 more variables: n_etype1 <dbl>, n_etype2 <dbl>, n_etype3 <dbl>,

> summary(data)
objectid        month            time_month           name_0
Min.   :  65   Length:277872      Length:277872       Length:277872
```

```
1st Qu.: 670    Class :character    Class :character    Class :character
Median :1604    Mode  :character    Mode  :character    Mode  :character
Mean    :1686
name_1              shape_area          ISOcode             country
Length:277872      Min.   : 0.00009   Length:277872       Length:277872
Class :character    1st Qu.: 0.20524   Class :character    Class :character
Mode  :character    Median : 0.94572   Mode  :character    Mode  :character
Mean    : 3.06470
```

Here we start to rename the variables, generate new ones, and replace values.

```
1  STATA
2  gen idle_index = IDLE_index
3  gen ym = date_month
4  lab var idle_index "Idle Index"
5
6  R STUDIO
7  # Rename variables
8  data$idle_index <- data$IDLE_index
9  data$ym <- data$date_month
10 names(data)[names(data) == "idle_index"] <- "Idle Index"
11
12 STATA
13 // set panel structure
14 xtset objectid ym
15
16 R STUDIO
17 # Set panel structure
18 library(plm)
19 pdata <- pdata.frame(data, index = c("objectid", "ym"))
20
21 STATA
22 gen SCADantigov = 0
23 replace SCADantigov = 1 if n_etype8 > 0 | n_etype9 > 0
24 replace SCADantigov = . if n_etype8 == .
25
26 R STUDIO
27 # Generate variable and replace values
28 data$SCADantigov <- 0
29 data$SCADantigov[data$n_etype8 > 0 | data$n_etype9 > 0] <- 1
30 data$SCADantigov[is.na(data$n_etype8)] <- NA
31
32 STATA
33 gen py2 = py_SCADantigov * py_SCADantigov
34 gen py3 = py_SCADantigov * py_SCADantigov * py_SCADantigov
35
36 R STUDIO
37 # Generate squared and cubed variables
38 data$py2 <- data$py_SCADantigov^2
39 data$py3 <- data$py_SCADantigov^3
```

Generate Figure 1. Distribution of idle index

```stata
STATA
reghdfe SCADantigov idle_index , absorb(objectid ) vce(r)
gen sample = 1 if e(sample)==1

hist idle_index if sample==1 , scheme(s1mono)  percent ytitle(% of
    Observations) color(green%60) name(hist , replace) bin(20)
//graph export "Idlehist.pdf", replace

tabstat idle_index if sample==1 , by(mon)
graph bar (mean) idle_index if sample==1, over(Month, ) bar(1, fcolor(navy%60)
    ) scheme(s1mono) ytitle(Mean Idle Index)  title(Mean by Month, size(medium
    )) name(meanovermon, replace)
///scatter cultivated idle_index if sample==1 , ytitle("% of cultivated land")
     scheme(s1mono) name(cult , replace) msymbol(oh) mcolor(red%30)

graph combine hist meanovermon, scheme(s1mono)
graph export "FigTbl/Fig1_Idlediag.pdf", replace

R STUDIO
# Load the necessary library
library(fixest)

# Load the dataset
data <- read.csv("AllDataMerged_15May2023_weighted.csv")

# Rename variables
data$idle_index <- data$IDLE_index
data$ym <- data$date_month

# Set panel structure
data <- pdata.frame(data , index = c("objectid", "ym"))

# Generate SCADantigov variable
data$SCADantigov <- ifelse(data$n_etype8 > 0 | data$n_etype9 > 0, 1, 0)
data$SCADantigov[data$n_etype8 == .] <- NA

# Run the fixed effects regression
model <- feols(SCADantigov ~ idle_index | objectid , data = data)

# Generate a sample indicator based on residuals
data$sample <- ifelse(!is.na(model$residuals), 1, 0)

# Subset data for the sample
sample_data <- subset(data , sample == 1)

# Histogram of idle_index
hist(sample_data$idle_index , main = "Distribution of Idle Index",
xlab = "Idle Index", ylab = "% of Observations", percent = TRUE, col = "
    green60", breaks = 20)

```

```r
46  # Summary statistics by month
47  by_month <- tapply(sample_data$idle_index, sample_data$mon, summary)
48
49  # Bar plot of mean idle_index by month
50  barplot(by_month$mean, names.arg = names(by_month), xlab = "Month", ylab = "
       Mean Idle Index",
51  col = "navy60", main = "Mean by Month", border = NA)
52
53  # Export the graph
54  pdf("FigTbl/Fig1_Idlediag.pdf")
55  par(mfrow = c(1, 2))
56  hist(sample_data$idle_index, main = "Distribution of Idle Index",
57  xlab = "Idle Index", ylab = "% of Observations", percent = TRUE, col = "
       green60", breaks = 20)
58  barplot(by_month$mean, names.arg = names(by_month), xlab = "Month", ylab = "
       Mean Idle Index",
59  col = "navy60", main = "Mean by Month", border = NA)
60  dev.off()
```

R STUDIO

```r
1   # Load required libraries
2   library(ggplot2)
3   library(cowplot)
4
5   # Display the first few rows of data
6   head(data)
7
8   # Display the first few rows of monthly_mean_idle_index
9   head(monthly_mean_idle_index)
10
11  # Plotting Figure 1 again
12  # Distribution of idle index (left panel)
13  histogram <- ggplot(data = data, aes(x = IDLE_index)) +
14  geom_histogram(binwidth = 0.005, fill = "red", color = "red", alpha = 0.8) +
       # Set both fill and color to "red"
15  labs(title = "Distribution of Idle Index",
16  x = "Idle Index",
17  y = "Frequency") +
18  theme_minimal()
19
20  # Mean of idle index for each month across Africa (right panel)
21  lineplot <- ggplot(data = monthly_mean_idle_index, aes(x = month, y =
       monthly_mean_idle_index)) +
22  geom_line(color = "blue", size = 1) +  # Use geom_line() for a line plot
23  labs(title = "Mean Idle Index for Each Month",
24  x = "Month",
25  y = "Mean Idle Index") +
26  theme_minimal() +
27  theme(axis.text.x = element_text(angle = 45, hjust = 1))  # Rotate x-axis
       labels for better readability
28
```

```
29  # Combine both plots
30  combined_plot <- cowplot::plot_grid(histogram, lineplot, labels = "AUTO", nrow
        = 1)
31
32  # Display the combined plot
33  print(combined_plot)
```
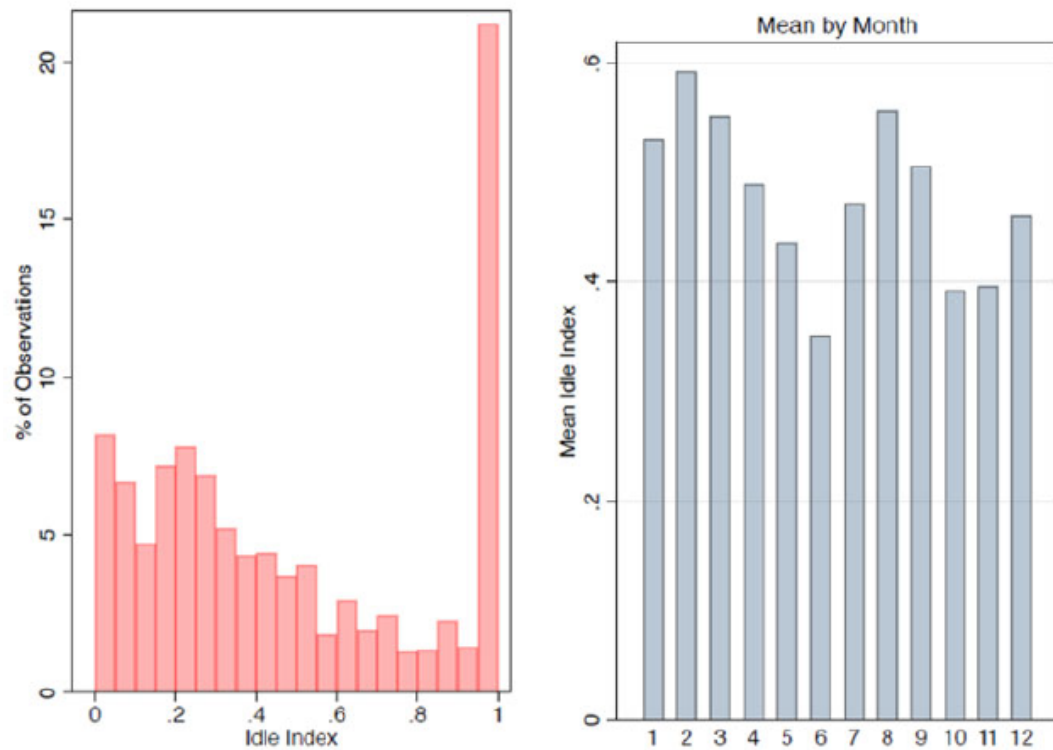

Figure 1. Distribution of idle index.

Figure 1: Distribution of idle index

Generate Table 1: Agricultural idle time and armed conflict

```
1
2   STATA
3
4   ** SCAD analysis:
5
6   egen yearmon = group(year mon)
7   egen oyfe = group(objectid year)
8   // gen object year FE
9
10  //gen lnpy_SCAD = ln(py_SCADantigov+.1)
11
12  est clear
```

```
13 sum SCADantigov if sample==1
14 local bl = r(mean)
15
16 eststo: reghdfe SCADantigov idle_index , absorb(objectid ) vce(r)
17 estadd local FEobj"x"
18 estadd local perch =  (_b[idle_index]/'bl')*100
19 di  ((_b[idle_index]*.35)/'bl')*100
20 //estadd local perch50 =  ((_b[idle_index]*.63)/'bl')*100
21
22 *eststo: reghdfe SCADantigov idle_index , absorb(ccode) vce(r)
23 *estadd local FEcountry"x"
24 *estadd local perch =  (_b[idle_index]/'bl')*100
25
26 eststo: reghdfe SCADantigov idle_index , absorb(oyfe ) vce(r)
27 estadd local FEoy "x"
28 estadd local perch =  (_b[idle_index]/'bl')*100
29
30 eststo: reghdfe SCADantigov idle_index , absorb(objectid oyfe) vce(r )
31 estadd local FEobj"x"
32 estadd local FEoy "x"
33 estadd local perch =  (_b[idle_index]/'bl')*100
34
35 eststo: reghdfe SCADantigov idle_index , absorb(objectid oyfe ym ) vce(r )
36 estadd local FEobj"x"
37 estadd local FEoy "x"
38 estadd local FEmo "x"
39 estadd local perch =  (_b[idle_index]/'bl')*100
40
41 eststo: reghdfe SCADantigov idle_index temp prec, absorb(objectid oyfe mon )
     vce(r)
42 estadd local FEobj"x"
43 estadd local FEoy "x"
44 estadd local FEmo "x"
45 estadd local TP "x"
46 estadd local perch =  (_b[idle_index]/'bl')*100
47
48 eststo: reghdfe SCADantigov idle_index py_SCADantigov, absorb(objectid oyfe
     mon ) vce(r)
49 estadd local FEobj"x"
50 estadd local FEoy "x"
51 estadd local FEmo "x"
52 estadd local PY "x"
53 estadd local perch =  (_b[idle_index]/'bl')*100
54
55 #delimit ;
56 esttab _all using "FigTbl/Table1_SCAD.csv", label nogaps compress
57 keep(idle_index)  se star(* 0.05 ** 0.01 *** 0.001) cells(b(star fmt(%9.4f))
     se( fmt(%9.4f)))
58 stats(perch N r2 FEobj FEoy FEcountry FEmo TP PY, fmt(%2.1f %18.0g %12.2f)
     labels('"Per. Change"' '"Observations"' '"R-squared"' '"Location FE"' '"
     Country-Year FE"' '"Country FE"' '"Calendar Month FE"' '"Temp &
```

```
         Precipitation"' '"Peace Months"') )
59 replace ;
60 #delimit cr
61
62
63 ** ACLED initiator ***
64
65 est clear
66
67 *gen acled_bi = (ACLED_initiator_count >0)
68 *replace acled_bi = . if ACLED_initiator_count==.
69
70 btscs acled_bi year objectid , g(py_acled_bi)
71
72 gen py2_acled  = py_acled_bi*py_acled_bi
73 gen py3_acled  = py_acled_bi*py_acled_bi*py_acled_bi
74
75
76 sum acled_bi if sample==1
77 local bl = r(mean)
78
79 est clear
80 ests to : reghdfe acled_bi idle_index , absorb(objectid ) vce(r)
81 estadd local FEobj"x"
82 estadd local perch =  (_b[idle_index]/'bl')*100
83
84 ests to : reghdfe acled_bi idle_index , absorb( oyfe) vce(r )
85 estadd local FEoy "x"
86 estadd local perch =  (_b[idle_index]/'bl')*100
87
88 ests to : reghdfe acled_bi idle_index , absorb(objectid oyfe) vce(r )
89 estadd local FEobj"x"
90 estadd local FEoy "x"
91 estadd local perch =  (_b[idle_index]/'bl')*100
92
93 ests to : reghdfe acled_bi idle_index , absorb(objectid oyfe mon ) vce(r )
94 estadd local FEobj"x"
95 estadd local FEoy "x"
96 estadd local FEmo "x"
97 estadd local perch =  (_b[idle_index]/'bl')*100
98
99 ests to : reghdfe acled_bi idle_index temp prec , absorb(objectid oyfe mon ) vce(
      r)
100 estadd local FEobj"x"
101 estadd local FEoy "x"
102 estadd local FEmo "x"
103 estadd local TP "x"
104 estadd local perch =  (_b[idle_index]/'bl')*100
105
106 ests to : reghdfe acled_bi idle_index py_acled_bi , absorb(objectid oyfe mon )
      vce(r)
```

```
107 estadd local FEobj"x"
108 estadd local FEoy "x"
109 estadd local FEmo "x"
110 estadd local PY "x"
111 estadd local perch =  (_b[idle_index]/'bl')*100
112
113 #delimit ;
114 esttab _all using "FigTbl/Table1_ACLED.csv", label nogaps compress
115 keep(idle_index)  se star(* 0.05 ** 0.01 *** 0.001)
116 stats(perch N r2 FEobj FEoy FEmo TP PY, fmt(%3.2f %18.0g %12.2f) labels('"Per.
        Change"' '"Observations"' '"R-squared"' '"Location FE"' '"Location-Year
      FE"' '"Calendar Month FE"' '"Temp & Precipitation"' '"Peace Months"') )
117 replace ;
118 #delimit cr
119
120
121 ** UCDP ***
122
123 *gen UCDP_bi = (UCDP_Violent_init_count>0)
124 *replace UCDP_bi = . if UCDP_Violent_init_count==.
125
126 reghdfe UCDP_bi idle_index , absorb(objectid ) vce(r)
127 gen sample_ucdp =1 if e(sample)==1
128
129 btscs UCDP_bi year objectid , g(py_UCDP_bi)
130
131 gen py2_ucdp  = py_UCDP_bi*py_UCDP_bi
132 gen py3_ucdp  = py_UCDP_bi*py_UCDP_bi*py_UCDP_bi
133
134
135 est clear
136 sum UCDP_bi if sample_ucdp==1
137 local bl = r(mean)
138
139 est clear
140 eststo: reghdfe UCDP_bi idle_index , absorb(objectid ) vce(r)
141 estadd local FEobj"x"
142 estadd local perch =  (_b[idle_index]/'bl')*100
143
144 eststo: reghdfe UCDP_bi idle_index , absorb( oyfe) vce(r )
145 estadd local FEoy "x"
146 estadd local perch =  (_b[idle_index]/'bl')*100
147
148 eststo: reghdfe UCDP_bi idle_index , absorb(objectid oyfe) vce(r )
149 estadd local FEobj"x"
150 estadd local FEoy "x"
151 estadd local perch =  (_b[idle_index]/'bl')*100
152
153 eststo: reghdfe UCDP_bi idle_index , absorb(objectid oyfe mon ) vce(r )
154 estadd local FEobj"x"
155 estadd local FEoy "x"
```

```
156  estadd local FEmo "x"
157  estadd local perch =  (_b[idle_index]/`bl')*100
158
159  eststo: reghdfe UCDP_bi idle_index temp prec, absorb(objectid oyfe mon ) vce(r
         )
160  estadd local FEobj"x"
161  estadd local FEoy "x"
162  estadd local FEmo "x"
163  estadd local TP "x"
164  estadd local perch =  (_b[idle_index]/`bl')*100
165
166  eststo: reghdfe UCDP_bi idle_index py_UCDP_bi, absorb(objectid oyfe mon ) vce(
         r )
167  estadd local FEobj"x"
168  estadd local FEoy "x"
169  estadd local FEmo "x"
170  estadd local PY "x"
171  estadd local perch =  (_b[idle_index]/`bl')*100
172
173  #delimit ;
174  esttab _all using "FigTbl/Table1_UCDP.csv", label nogaps compress
175  keep(idle_index)  se star(* 0.05 ** 0.01 *** 0.001)
176  stats(perch N r2 FEobj FEoy FEmo TP PY, fmt(%3.2f %18.0g %12.2f) labels('"Per.
         Change"' '"Observations"' '"R-squared"' '"Location FE"' '"Location-Year
       FE"' '"Calendar Month FE"' '"Temp & Precipitation"' '"Peace Months"') )
177  replace ;
178  #delimit cr
```

STATA

Table 1. Agricultural idle time and armed conflict

SCAD						
	(1)	(2)	(3)	(4)	(5)	(6)
Idle index	0.0032***	0.0032***	0.0032***	0.0035***	0.0028**	0.0029***
SE	(0.0009)	(0.0008)	(0.0008)	(0.0008)	(0.0009)	(0.0008)
Per. change	20.8	20.8	20.8	22.9	18.6	18.8
Observations	242,928	242,928	242,928	242,928	241,248	242,928
R^2	0.08	0.33	0.33	0.33	0.33	0.34
ACLED						
	(7)	(8)	(9)	(10)	(11)	(12)
Idle index	0.0083**	0.0083**	0.0083**	0.0101***	0.0081***	0.0101***
SE	(0.0021)	(0.0018)	(0.0018)	(0.0018)	(0.0021)	(0.0018)
Per. change	9.9	9.9	9.9	12.1	9.6	12.1
Observations	182,196	182,196	182,196	182,196	182,196	182,196
R^2	0.22	0.47	0.47	0.47	0.47	0.47
UCDP-GED						
	(13)	(14)	(15)	(16)	(17)	(18)
Idle index	0.0035**	0.0035**	0.0035**	0.0037**	0.0032*	0.0037*
SE	(0.0014)	(0.0011)	(0.0011)	(0.0012)	(0.0013)	(0.0012)
Per. change	8.3	8.3	8.3	8.7	7.5	8.7
Observations	242,928	242,928	242,928	242,928	241,248	242,928
R^2	0.17	0.45	0.45	0.45	0.45	0.46
Specification parameters						
Location FE	x		x	x	x	x
Location-year FE		x	x	x	x	x
Calendar-month FE				x	x	x
Temp. and precipitation					x	
Time since conflict						x

*p < 0.05, **p < 0.01, ***p < 0.001.

Figure 2: Agricultural idle time and armed conflict

R Studio
Table 1 Agricultural idle time and armed conflict

Dataset	Estimate	SE	Perc Change	Observations	R2
SCAD	0.0032	0.0009	20.8	242928	0.08
SCAD	0.0032	0.0008	20.8	242928	0.33
SCAD	0.0032	0.0008	20.8	242928	0.33
SCAD	0.0035	0.0008	22.9	242928	0.33
SCAD	0.0028	0.0009	18.6	241248	0.33
SCAD	0.0029	0.0008	18.8	242928	0.34
ACLED	0.0083	0.0021	9.9	182196	0.22
ACLED	0.0083	0.0018	9.9	182196	0.47
ACLED	0.0083	0.0018	9.9	182196	0.47
ACLED	0.0101	0.0018	12.1	182196	0.47
ACLED	0.0081	0.0021	9.6	182196	0.47
ACLED	0.0101	0.0018	12.1	182196	0.47
UCDP-GED	0.0035	0.0014	8.3	242928	0.17
UCDP-GED	0.0035	0.0011	8.3	242928	0.45
UCDP-GED	0.0035	0.0011	8.3	242928	0.45

```
|UCDP-GED |   0.0037| 0.0012|        8.7|      242928| 0.45|
|UCDP-GED |   0.0032| 0.0013|        7.5|      241248| 0.45|
|UCDP-GED |   0.0037| 0.0012|        8.7|      242928| 0.46|
```

Dependent Variables: Three different measures of conflict are used: SCAD (Social Conflict Analysis Database), ACLED (Armed Conflict Location Event Dataset), and UCDP-GED (Uppsala Conflict Data Program-Georeferenced Event Dataset). Each measure captures different aspects of political violence.

Independent Variable: The agricultural idle index is the main independent variable of interest. The coefficients indicate the change in the probability of conflict occurrence associated with a one-unit increase in the idle index.

The coefficients for the idle index are statistically significant across all specifications and outcome variables, indicated by the p-values (p ¡ 0.01 or *p ¡ 0.001). The magnitude of the coefficients suggests that an increase in the agricultural idle index is associated with a significant increase in the probability of conflict occurrence. For example, in the SCAD model, a one-unit increase in the idle index is associated with a 20.8The models' explanatory power, indicated by the R-squared values, varies across specifications but generally falls within the range of 0.08 to 0.47, suggesting moderate to substantial explanatory power.

Generate Table 2: Idle index post-2000 - SCAD

```stata
STATA
est clear
sum SCADantigov  if sample==1 &  year>2000
local bl = r(mean)

est clear
ests to: reghdfe SCADantigov idle_index if year>2000, absorb(objectid ) vce(r)
estadd local FEobj"x"
estadd local perch =  (_b[idle_index]/'bl')*100

ests to: reghdfe SCADantigov idle_index  if year>2000, absorb( oyfe) vce(r )
estadd local FEoy "x"
estadd local perch =  (_b[idle_index]/'bl')*100

ests to: reghdfe SCADantigov idle_index  if year>2000, absorb(objectid oyfe)
    vce(r )
estadd local FEobj"x"
estadd local FEoy "x"
estadd local perch =  (_b[idle_index]/'bl')*100

ests to: reghdfe SCADantigov idle_index  if year>2000, absorb(objectid oyfe mon
    ) vce(r )
estadd local FEobj"x"
estadd local FEoy "x"
estadd local FEmo "x"
estadd local perch =  (_b[idle_index]/'bl')*100

ests to: reghdfe SCADantigov idle_index temp prec  if year>2000, absorb(
    objectid oyfe mon ) vce(r)
estadd local FEobj"x"
estadd local FEoy "x"
estadd local FEmo "x"
estadd local TP "x"
estadd local perch =  (_b[idle_index]/'bl')*100

ests to: reghdfe SCADantigov idle_index py_SCADantigov  if year>2000, absorb(
    objectid oyfe mon ) vce(r)
estadd local FEobj"x"
estadd local FEoy "x"
estadd local FEmo "x"
estadd local PY "x"
estadd local perch =  (_b[idle_index]/'bl')*100

#delimit ;
esttab _all using "FigTbl/Table2_POST2000.csv", label nogaps compress
keep(idle_index)  se star(* 0.05 ** 0.01 *** 0.001)  cells(b(star fmt(%9.4f))
    se( fmt(%9.4f)))
stats(perch N r2 FEobj FEoy FEmo TP PY, fmt(%3.2f %18.0g %12.2f) labels('"Per.
    Change"' '"Observations"' '"R-squared"' '"Location FE"' '"Location-Year
    FE"' '"Calendar Month FE"' '"Temp & Precipitation"' '"Peace Months"') )
```

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STATA

Table 2. Idle index post-2000

	(1)	(2)	(3)	(4)	(5)	(6)
Idle index	0.0037**	0.0037**	0.0037**	0.0043***	0.0038**	0.0035**
	(0.0013)	(0.0012)	(0.0012)	(0.0012)	(0.0013)	(0.0012)
Per. change	17.8	17.8	17.8	20.9	18.3	17.1
Observations	147,492	147,492	147,492	147,492	146,472	147,492
R^2	0.12	0.34	0.34	0.34	0.34	0.35
Location FE	x		x	x	x	x
Location-year FE		x	x	x	x	x
Calendar-month FE				x	x	x
Temp. and precipitation					x	
Time since conflict						x

Standard errors in parentheses
*p < 0.05, **p < 0.01, ***p < 0.001.

Figure 3: Idle index post-2000 - SCAD

R Studio
Table 2 Idle index post-2000 - SCAD

```
| Estimate|     SE| Perc Change| Observations|   R2|
|--------:|------:|-----------:|------------:|----:|
|   0.0037| 0.0013|        17.8|       147492| 0.12|
|   0.0037| 0.0012|        17.8|       147492| 0.34|
|   0.0037| 0.0012|        17.8|       147492| 0.34|
|   0.0043| 0.0012|        20.9|       147492| 0.34|
|   0.0038| 0.0013|        18.3|       146472| 0.34|
|   0.0035| 0.0012|        17.1|       147492| 0.35|
```

The coefficients for the idle index remain statistically significant across all specifications and outcome variables, denoted by the significance levels (p ¡ 0.01 or *p ¡ 0.001). Consistent with the findings from Table 1, the coefficients indicate a positive association between agricultural idle time and the likelihood of conflict occurrence. For instance, in the SCAD model, a one-unit increase in the idle index is associated with a 17.8 percentage increase in the probability of conflict. The explanatory power of the models, as indicated by the R-squared values, remains moderate to substantial, ranging from 0.12 to 0.35.

Overall, the results from Table 2 reaffirm the positive association between agricultural idle time and conflict occurrence, even when focusing specifically on the post-2000 period

Contribution

Generate R Studio Code for replication of the main tables and figures.

Conclusion

About the dataset: Choosing a different academic paper where the code is already in R Studio, can avoid wasted time and allow us to focus on the paper's goal. An explanation about the variables in the dataset is missing this potentially could help to improve the contribution on the study.