

Replication Note for
An Empirical Study of Suicide Terrorism: A Global Analysis

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1. Introduction

In this note, we provide the replication material for our article “An Empirical Study of Suicide Terrorism: A Global Analysis.” We use LIMDEP version 10 econometric software developed by Greene (2012) to perform the statistical analysis. A detailed explanation of each model can be found in the Statistical Methodology section of our article. Below is a comprehensive guide of the LIMDEP command structure used for our analysis. For further explanation of any command structure, please see the document “LIMDEP 10 Econometric Modeling Guide” provided during the installation of LIMDEP as a reference.

2. Variable Abbreviations

The following is a list of the variable names and their abbreviations used throughout the code.

ATTACKS: Number of Suicide Attacks
CAS: Average Number of Casualties
LATTACKS: Previous Year Total Attacks
DEM: Democracy
WT: War on Terror
UE: Unemployment Rate
FOREIGN: Foreign Occupation/Transition
LMILEXP: Lagged Military Expenditure
GNI: Log Gross National Income per Worker
TSE: Tertiary School Enrollment
RELIGIOU: Religious group
MILITARY: Military target
OFFICIAL: Official target
BUSINESS: Business target
SOCIAL: Social services providing group
MAJOR: Major city

3. Set-up

After installing and loading LIMDEP:

1. Select “New Project”
2. Select “Import Data”
3. Select the CSV file to be used for analysis

Since the analysis is for panel data, you must tell LIMDEP that the data is in panel form:

```
SETPANEL ; Group = PID; Pds = _GROUPTI$
```

To create the “War on Terror” dummy:

```
create; WT = Year>2001$
```

To perform the log transformation on the GNI per worker variable:

```
create; GNI = LOG(GNIPW)$
```

4. Zero-Inflated Negative Binomial Panel (ZINB) estimation

List the variables to be used:

```
Namelist;  
x= LATTACKS, DEM, WT, FOREIGN, LMILEXP, UE, GNI, TSE$
```

Running the negative binomial portion of the ZINB:

```
NEGBIN;  
LHS = ATTACKS;  
RHS= ONE, x;  
Zip;  
RH2= ONE, LATTACKS, WT, FOREIGN, LMILEXP, DEM$
```

Running the zero-inflated portion of the ZINB:

```
POISSON;  
LHS = ATTACKS;  
RHS= ONE, x;  
Zip;  
RH2= ONE, LATTACKS, WT, FOREIGN, LMILEXP, DEM;  
FEM;  
PDS=_GROUPTI;  
Prob = Fz$
```

The first part gathers the starting values and controls for over-dispersion. The second part runs the ZINB model. The command FEM indicates it is a fixed effects model. The command “Prob

= Fz” retains the model values to be used in the calculation of the Vuong statistic (see below for code).

5. Negative Binomial Panel Estimation

List the variables to be used:

```
Namelist; x= RELIGIOU, MILITARY, OFFICIAL, BUSINESS, SOCIAL $
```

Running the Negative Binomial model:

```
NEGBIN;  
LHS=ATTACKS;  
RHS= ONE, x;  
PANEL;  
FIXED;  
MARGIN;  
MEANS$
```

The command FIXED tells indicates a fixed effects model. The commands MARGIN and MEANS compute the marginal effects at the means of the variables.

6. Linear Regression Panel Estimation

List the variables to be used:

```
Namelist;  
x= RELIGIOU, MILITARY, OFFICIAL, BUSINESS, SOCIAL, MAJOR $
```

Running the linear regression model:

```
REGRESS;  
LHS = CAS;  
RHS= ONE, x;  
STR=PID;  
PANEL;  
FIXED$
```

The final three lines of the code indicate that it is a fixed effects model

7. Vuong Statistic

For the Vuong statistic, run this immediately following the ZINB code:

```
NEGBIN;  
LHS=ATTACKS;  
RHS= ONE, x;  
PANEL;  
FIXED;  
Prob = Fn$  
Create;  
mi=log(Fz/Fn)$  
Calc;  
List;  
vuong = Sqr(n) * (Xbr(mi) / Sdv(mi))$
```

8. References

Greene, William. 2012. *LIMDEP version 10*. Plainview, NY: Econometric Software, Inc.