Tables for Multilevel Models in Stata

Andy Grogan-Kaylor

2024-09-15

1 Introduction A

This is a shorter working example to make tables in Stata.

2 Data Source 👌

The data used in this example are derived from the R package *Functions and Datasets for "Forest Analytics with R"*.

According to the documentation, the source of these data are: "von Guttenberg's Norway spruce (Picea abies [L.] Karst) tree measurement data."



Figure 1: Old Tjikko, a 9,550 Year Old Norway Spruce in Sweden

The documentation goes on to further note that:

"The data are measures from 107 trees. The trees were selected as being of average size from healthy and well stocked stands in the Alps."

3 Setup 👌

```
clear all // clear workspace
use "gutten.dta", clear // use tree data as example
```

4 Variables &

site Growth *quality* class of the tree's habitat. 5 levels.

location Distinguishes tree location. 7 levels.

tree An identifier for the tree within location.

age_base The tree age taken at ground level.

```
height Tree height, m.

dbh_cm Tree diameter, cm.

volume Tree volume.

age_bh Tree age taken at 1.3 m.

tree_ID A factor uniquely identifying the tree.
```

5 Estimate Multilevel Models *Å*

♀ Use quietly To Suppress Output

For the sake of parsimony, I use quietly: to suppress the output of the mixed commands.

```
quietly: mixed height age_base i.site || tree_ID: // shorter mixed model
est store M1 // store the estimates
quietly: mixed height age_base i.site i.location || tree_ID: // longer mixed model
est store M2 // store the estimates
```

6 Table With etable △

```
etable, estimates(M1 M2) /// use these estimate(s)
novarlabel /// variable names only; could use variable labels
cstat(_r_b) /// beta's only
showstars showstarsnote /// show stars and note
column(estimate) // column is modelname
```

```
M1
                                   M2
                        0.214 ** 0.214 **
age_base
site
 2
                      -3.316 ** -2.994 **
 3
                      -8.095 ** -7.765 **
 4
                      -11.510 ** -10.844 **
 5
                      -15.866 ** -15.179 **
location
 2
                                  -0.322
 3
                                  0.475
 4
                                  0.060
 5
                                  -0.450
 6
                                  -0.255
 7
                                  -1.454
_cons
                        8.233 ** 8.181 **
var(_cons)
                       2.171
                                  1.981
                                  8.397
var(e)
                        8.393
Number of observations 1200
                                  1200
** p<.01, * p<.05
```