
Subject: Multi-level mixed effect Poisson regression in Stata
Posted by [iqbalnowshad](#) on Wed, 04 Aug 2021 17:38:23 GMT
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Dear User forum members,

I am using the individual DHS survey data (IR file) where subjects are nested within households, and households are nested within clusters. My outcome of interest is a count variable and I have several categorical predicts. I would like to fit a multi-level mixed effect Poisson regression model with robust variance to identify factors associated with the outcome in Stata (version 15.1).

However, I am having difficulty in writing the code in Stata. For survey data we usually use "SVY" command. However, Stata documentation (<https://www.stata.com/manuals/memepoisson.pdf>) shows below command for "mepoisson" multi-level mixed effect Poisson regression which is very confusing to me.

```
svyset psu, weight(wvar3) || ssu, weight(wvar2) || _n, weight(wvar1)
svy: mepoisson y x || psu: || ssu:
```

How do I incorporate weight (v005), primary sampling unit (v021) and strata (v022) variable in the above code? Also how to estimate values for ICC, PCV, AIC, and BIC after model fitting.

I was hoping someone could help me with this or if anyone has done similar analysis and shares the code that will be much appreciated.

Thank you,
Iqbal
