Additional Stata v11.1 Example: Use of the post-estimation estat cv option

This example provides information on how to use the new estat cv option after svy: mean and svy: regress. The estat cv option is a new svy post-estimation option. The Stata v11.1 help provides this description:

`estat cv` reports the coefficient of variation (CV) for each coefficient in the current estimation results. The CV for coefficient b is $CV(b) = 100 \times \frac{SE(b)}{b}$

In this example, the NCS-R data set is used. After reading in the data, svyset is specified to set the survey variables and weight. Then, use of svy: mean or svy: regress along with estat cv (postestimation command) provides the coefficient of variation for the mean analysis of age and the linear regression of hhinc predicted by age. This example uses the NCS-R Part 1 weight (ncsrwtsh) along with the strata and cluster variables (sestrat and seclustr) for the means analysis and the NCS-R Part 2 weight for the regression analysis as HH income is a Part 2 variable.

For more information about the svy: mean, svy: regress or estat cv commands, see the Stata v11.1 Survey documentation.

```
* read in NCS-R data set
  use "F:\brahms\applied_analysis_book\ncsrsubset_nov29_2008.dta", clear

* svyset using Part 1 weight and design variables
  svyset seclustr [pweight=ncsrwtsh], strata(sestrat)
    pweight: ncsrwtsh
    VCE: linearized
    Single unit: missing
      Strata 1: sestrat
      SU 1: seclustr
      FPC 1: <zero>

* means analysis of age using Part 1 weight and survey variables
  svy linearized : mean age
  (running mean on estimation sample)

Survey: Mean estimation
Number of strata  =   42          Number of obs  =   9282
Number of PSUs   =   84          Population size =   9282
Design df        =   42
------------------------------------------------------------
|             Linearized
|       Mean   Std. Err.     [95% Conf. Interval]
------------------------------------------------
age |   44.77561   .4141179      43.93988    45.61133
------------------------------------------------

* obtain cv for age
  estat cv

|             Linearized
|       Mean   Std. Err.     CV
------------------------------------------------
age |   44.77561   .4141179     .924874
------------------------------------------------
```
* redo the svyset to use the Part 2 weight (ncsrwtlg)
  . svyset seclustr [pweight=ncsrwtlg], strata(sestrat)

    pweight: ncsrwtlg
    VCE: Linearized
    Single unit: missing
    Strata 1: sestrat
    SU 1: seclustr
    FPC 1: <zero>

* regression of hhinc predicted by age
  . svy: regress hhinc age
  (running regress on estimation sample)

Survey: Linear regression

Number of strata  =  42
Number of obs    =  5692
Number of PSUs   =  84
Population size  =  5692.0005
Design df        =  42
F( 1, 42)        =  7.08
Prob > F         =  0.0110
R-squared        =  0.0033

|             Linearized  
| hhinc | Coef.  Std. Err.      t    P>|t|     [95% Conf. Interval]
|--------|--------|-----------------|------|-----------------|-----------------|
age     | -155.9041  58.61178   -2.66   0.011     -274.1874   -37.6207
_cons   |   66294.57   3632.183    18.25   0.000      58964.53   73624.61

* obtain cv for coefficients in regression model
  . estat cv

|             Linearized  
| hhinc | Coef.  Std. Err.         CV
|--------|--------|---------------|
age     | -155.9041  58.61178     37.5948
_cons   |   66294.57   3632.183     5.47885

* obtain cv for coefficients in regression model
  . estat cv