Title

estat summarize — Summarize estimation sample

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Syntax Also see

Description

estat summarize summarizes the variables used by the command and automatically restricts the sample to the estimation sample; it also summarizes the weight variable and cluster structure, if specified.

Quick start

Summary statistics for all variables in the model using estimation sample

estat summarize

Add variable labels to output

estat summarize, labels

Obtain summary of estimation sample for each equation

estat summarize, equation

Ignore weights when calculating summary statistics after weighted estimation estat summarize, noweights

Menu for estat

Statistics > Postestimation

Syntax

estat <u>summarize</u> [*eqlist*] [, *estat_summ_options*]

estat_summ_options	Description
equation	display summary by equation
 group	display summary by group; only after sem
labels	display variable labels
<u>nohea</u> der	suppress the header
<u>nowei</u> ghts	ignore weights
display_options	control row spacing, line width, display of omitted variables and base and empty cells, and factor-variable labeling

eqlist is rarely used and specifies the variables, with optional equation name, to be summarized. *eqlist* may be *varlist* or (*eqname*₁: *varlist*) (*eqname*₂: *varlist*) *varlist* may contain time-series operators; see [U] **11.4.4 Time-series varlists**.

Options

- equation requests that the dependent variables and the independent variables in the equations be displayed in the equation-style format of estimation commands, repeating the summary information about variables entered in more than one equation.
- group displays summary information separately for each group. group is only allowed after sem with a group() variable specified.

labels displays variable labels.

noheader suppresses the header.

noweights ignores the weights, if any, from the previous estimation command. The default when weights are present is to perform a weighted summarize on all variables except the weight variable itself. An unweighted summarize is performed on the weight variable.

display_options: noomitted, vsquish, noemptycells, baselevels, allbaselevels, nofvlabel, fvwrap(#), and fvwrapon(style); see [R] estimation options.

Remarks and examples

stata.com

Often when fitting a model, you will also be interested in obtaining summary statistics, such as the sample means and standard deviations of the variables in the model. estat summarize makes this process simple. The output displayed is similar to that obtained by typing

```
. summarize varlist if e(sample)
```

without the need to type the *varlist* containing the dependent and independent variables.

Example 1

Continuing with the example in [R] estat ic, here we summarize the variables by using estat summarize.

. use http://www.stata-press.com/data/r14/sysdsn1 (Health insurance data)

- . mlogit insure age male nonwhite i.site (output omitted)
- . estat summarize, noomitted Estimation sample mlogit

Number of obs = 61			stimation sample mlogit	
Max	Min	Std. Dev.	Mean	Variable
з	1	.6225846	1.596748	insure
86.07254	18.11087	14.18523	44.46832	age
1	0	.4335998	.2504065	male
1	0	.3978638	.196748	nonwhite
				site
1	0	.4833939	.3707317	2
1	0	.4644224	.3138211	3

The output in the previous example contains all the variables in one table, though mlogit presents its results in a multiple-equation format. For models in which the same variables appear in all equations, that is fine; but for other multiple-equation models, we may prefer to have the variables separated by the equation in which they appear. The equation option makes this possible.

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Example 2

Systems of simultaneous equations typically have different variables in each equation, and the equation option of estat summarize is helpful in such situations. In example 2 of [R] reg3, we have a model of supply and demand. We first refit the model and then call estat summarize.

. use http://www.stata-press.com/data/r14/supDem

```
. reg3 (Demand:quantity price pcompete income) (Supply:quantity price praw),
```

> endog(price)

(output omitted)

. estat summarize, equation Estimation sample reg3

Estimation sample reg3		Number of obs = 49		
Variable	Mean	Std. Dev.	Min	Max
depvar				
quantity	12.61818	2.774952	7.710694	20.04767
quantity	12.61818	2.774952	7.710694	20.04767
demale				
price	32.70944	2.882684	26.38185	38.47692
pcompete	5.929975	3.508264	.2076465	11.55491
income	7.811735	4.18859	.5704173	14.00767
Supply				
price	32.70944	2.882684	26.38185	38.47692
praw	4.740891	2.962565	.1510276	9.79881

The first block of the table contains statistics on the dependent (or, more accurately, left-hand-side) variables, and because we specified quantity as the left-hand-side variable in both equations, it is listed twice. The second block refers to the variables in the first equation we specified, which we labeled "Demand" in our call to reg3; and the final block refers to the supply equation.

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Stored results

estat summarize stores the following in r():

```
Scalars
```

r(N_groups) number of groups (group only)

```
Matrices
```

 $k \times 4$ matrix of means, standard deviations, minimums, and maximums r(stats) r(stats |-#|) $k \times 4$ matrix of means, standard deviations, minimums, and maximums for group # (group only)

Also see

- [R] estat Postestimation statistics
- [R] estat ic Display information criteria
- [R] estat vce Display covariance matrix estimates