Title

esta —— Display formatted regression table

Table of contents

Syntax

esta [*namelist*] [**using** *filename*] [**,** *options*]

where *namelist* is **_all** | ***** | *name* [*name* **...**]
name is *identifier* | **.**

options	description
Main	
b(*fmt***)**	specify format for point estimates
beta[**(***fmt***)**]	display beta coefficients instead of point est's
main(*name* [*fmt*]**)**	display contents of **e(***name***)** instead of point e's
t(*fmt***)**	specify format for t-statistics
abs	use absolute value of t-statistics
not	suppress t-statistics
se[**(***fmt***)**]	display standard errors instead of t-statistics
p[**(***fmt***)**]	display p-values instead of t-statistics
ci[**(***fmt***)**]	display confidence intervals instead of t-stat's
aux(*name* [*fmt*]**)**	display contents of **e(***name***)** instead of t-stat's
[**no**]**constant**	do not/do report the intercept
Significance stars	
[**no**]**star**[**(***list***)**]	do not/do report significance stars
staraux	attach stars to t-stat's instead of point est's

Summary statistics

r2|**ar2**|**pr2**[**(***fmt***)**]	display (adjusted, pseudo) R-squared
aic|**bic**[**(***fmt***)**]	display Akaike's or Schwarz's information crit.
scalars(*list***)**	display any other scalars contained in **e()**
sfmt(*fmt* [**...**]**)**	set format(s) for **scalars()**
noobs	do not display the number of observations
obslast	place the number of observations last

Layout

wide	place point est's and t-stat's beside one another
[**no**]**parentheses**	do not/do print parentheses around t-statistics
brackets	use brackets instead of parentheses
[**no**]**gaps**	suppress/add vertical spacing
[**no**]**lines**	suppress/add horizontal lines
compress	reduce horizontal spacing
plain	produce a minimally formatted table

Labeling

label	make use of variable labels
title(*string***)**	specify a title for the table
mtitles(*list***)**	specify model titles to appear in table header
nomtitles	disable model titles
[**no**]**depvars**	do not/do print dependent variables in header
[**no**]**numbers**	do not/do print model numbers in table header
coeflabels(*list***)**	specify labels for coefficients
[**no**]**notes**	suppress/add notes in the table footer
addnotes(*list***)**	add lines at the end of the table

Document format

fixed | **tab** | **csv** | **scsv** | **rtf** | **html** | **tex** | **booktabs**	set the document format (**fixed** is the default)
fragment	suppress table opening and closing (LaTeX, HTML)
page[**(***packages***)**]	add page opening and closing (LaTeX, HTML)
alignment(*string***)**	set alignment within columns (LaTeX, HTML, RTF)
width(*string***)**	set width of table (LaTeX, HTML)

Output

replace	overwrite an existing file
append	append the output to an existing file
type	force prining the table in the results window
noisily	display the executed **estout** command

Advanced

drop(*list***)**	drop individual coefficients
keep(*list***)**	keep individual coefficients
order(*list***)**	change order of coefficients
equations(*list***)**	match the models' equations
eform	report exponentiated coefficients
margin	report marginal effects/elasticities
unstack	place multiple equations in separate columns
estout_options	any other **estout** options

Description

esta is a wrapper for **estout**. It produces a pretty-looking publication-style regression table from stored estimates without much typing. The compiled table is displayed in the Stata results window or, optionally, written to a text file specified by **using** *filename*. If *filename* is specified without suffix, a default suffix is added depending on the specified document format (".txt" for **fixed** and **tab**, ".csv" for **csv** and **scsv**, ".rtf" for **rft**, ".html" for **html**, and ".tex" for **tex** and **booktabs**).

namelist provides the names of the stored estimation sets to be tabulated. You may use the * and ? wildcards in *namelist*. If *namelist* is omitted, **esta** tabulates the estimation sets stored by **esto** (see help **esto**) or, if no such estimates are present, the currently active estimates (i.e. the model fit last).

See help **estimates** for information about storing estimation results. An alternative to the **estimates store** command is provided by **esto**.

Options

Main

b(*fmt***)** sets the numerical display format for the point estimates. The default format is **a3**. (See Numerical formats below for details on available formats.)

beta[**(***fmt***)**] requests that standardized beta coefficients be displayed in place of the raw point estimates and, optionally, sets the display format (the default is to print three decimal places). Note that **beta** causes the intercept to be dropped from the table (unless **constant** is specified).

main(*name* [*fmt*]**)** requests that the statistics stored in **e(***name***)** be displayed in place of the point estimates and, optionally, sets the display format (the default is to use the display format for point estimates). For example, **e(***name***)** may contain statistics added by **estadd** (see help **estadd**).

t(*fmt***)** sets the display format for t-statistics. The default is to display two decimal places.

abs causes absolute values of t-statistics to be reported.

not suppresses the printing of t-statistics.

se[**(***fmt***)**] requests that standard errors be displayed in place of t-statistics and, optionally, sets the display format (the default is to use the display format for point estimates).

p[**(***fmt***)**] requests that p-values be displayed in place of t-statistics and, optionally, sets the display format (the default is to print three decimal places)

ci[**(***fmt***)**] requests that confidence intervals be displayed in place of t-statistics and, optionally, sets the display format (the default is to use the display format for point estimates). **level(#)** assigns the confidence level, in percent. The default is **level(95)** or as set by **set level**.

aux(*name* [*fmt*]**)** requests that the statistics stored in **e(***name***)** be displayed in place of t-statistics and, optionally, sets the display format (the default is to use the display format for point estimates). For example, **e(***name***)** may contain statistics added by **estadd** (see help **estadd**, if installed).

noconstant causes the intercept be dropped from the table. Specify **constant** to include the constant in situations where it is dropped by default.

Significance stars

star[**(***symbol level* [**...**]**)**] causes stars denoting the significance of the coefficients to be printed next to the point estimates. This is the default. Type **nostar** to suppress the stars. The default symbols and thresholds are: * for p<.05, ** for p<.01, and *** for p<.001. Alternatively, for example, type **star(+ 0.10 * 0.05)** to set the following thresholds: + for p<.10 and * for p<.05. Note that the thresholds must lie in the (0,1] interval and must be specified in descending order.

staraux causes the significance stars be printed next to the t-statistics (or standard errors, etc.) instead of the point estimates.

Summary statistics

r2[**(***fmt***)**], **ar2**[**(***fmt***)**], and **pr2**[**(***fmt***)**] include the R-squared, the adjusted R-squared, and the pseudo-R-squared in the table footer and, optionally, set the corresponding display formats (the default is to display three decimal places).

aic[**(***fmt***)**] and **bic**[**(***fmt***)**] include Akaike's and Schwarz's information criterion in the table footer and, optionally, set the corresponding display formats (the default is to use the display format for point estimates).

scalars(*list***)** may be used to add other **e()**-scalars to the table footer (type **ereturn list** to display a list of available **e()**-scalars after fitting a model; see help **ereturn**). For example, **scalars(df_m)** would report the model degrees of freedom for each model. *list* may be a simple list of names of **e()**-scalars, e.g.

```
. esta, scalars(ll_0 ll chi2)
```

or, alternatively, a list of quoted name-label pairs, e.g.

```
. esta, scalars("ll Log lik." "chi2 Chi-squared")
```

sfmt(*fmt* [...]**)** sets the display format(s) for the statistics specified in **scalars()** (the default is to use the display format for point estimates). If **sfmt()** contains less elements than **scalars()**, the last specified format is used for the remaining scalars. That is, only one format needs to be specified if the same format be used for all scalars.

noobs suppresses displaying information on the number of observations. The default is to report the number of observations for each model in the table footer.

obslast displays the number of observations in the last row of the table footer. The default is to use the first row.

Layout

wide causes point estimates and t-statistics (or standard errors, etc.) to be printed beside one another instead of beneath one another.

parentheses encloses t-statistics (or standard errors, etc.) in parentheses. This is the default. Specify **noparentheses** to suppress the parentheses.

brackets uses square brackets, [], instead of parentheses. Note that brackets are the default for confidence intervals.

gaps adds empty rows (or, more generally, additional vertical space) between coefficients to increase readability (empty rows are also inserted between the table's header, body, and footer, unless **lines** is activated). This is the default unless **wide** or **not** is specified. Type **nogaps** to suppress the extra spacing.

lines adds horizontal lines to the table separating the table's header, body, and footer. This is the default. Specify **nolines** to suppress the lines. Lines are always suppressed in the **tab** and **csv** modes.

compress reduces the amount of horizontal spacing (so that more models fit on screen without line breaking). The option has no effect in the **tab** and **csv** modes. Furthermore, note that in the TeX and HTML modes the **compress** option only changes the arrangement the table's code, but not the look of the compiled end-product. In **rtf**, however, **compress** changes the look of the formatted table.

plain produces a minimally formatted table. It is a shorthand to specifying **nostar**, **nodepvars**, **nonumbers**, **noparentheses**, **nogaps**, **nolines** and **nonotes** and setting all formats to **%9.0g**. Note that the disabled options can be switched on again. For example, type

```
. esta, plain star
```

to produce a plain table including significance stars.

Labeling

label specifies that variable labels be used instead of variable names (and estimation set titles be used instead of estimation set names). Furthermore, **label** prints "Constant" instead of "_cons".

title(*string***)** may be used to provide a title for the table. If specified, *string* is printed at the top of the table. Note that specifying a title causes the table to be set up as a floating object in LaTeX mode. You may want to set a label for referencing in this case. For example, if you type **title(...\label{tab1})**, then "\ref{tab1}" could be used in the LaTeX document to point to the table.

mtitles(*list***)** specifies a list of model titles to appear above the models' columns in the table header. Enclose titles in double quotes if they contain spaces, e.g. **mtitles("Model 1" "Model 2").** The default is to print the name (or label) of the (first) dependent variable of a model as the model's title.

nomtitles suppresses printing of model titles.

depvars prints the name (or label) of the (first) dependent variable of a model as the model's title in the table header. This is the default. Specify **nodepvars** to use the names (or titles) of the stored estimation sets instead of the variables.

numbers includes a row containing consecutive model numbers in the table header. This is the default. Specify **nonumbers** to suppress printing the model numbers.

coeflabels(*name label* [**...**]**)** specifies labels for the coefficients. Specify names and labels in pairs and, if necessary, enclose labels in double quotes, e.g. **coeflabels(mpg Milage rep78 "Repair Record").**

notes prints notes at the end of the table explaining the significance symbols and the type of displayed statistics. This is the default. Specify **nonotes** to suppress the notes.

addnotes(*list***)** may be used to add further lines of text at the bottom of the table. Lines containing blanks must be enclosed in double quotes, e.g. **addnotes("Line 1" "Line 2").**

Document format

fixed, **tab**, **csv**, **scsv**, **rtf**, **html**, **tex**, and **booktabs** choose the table's basic output format. The default format is **fixed**. However, if the *filename* specified by **using** has a ".csv" suffix, the **csv** format is the default. Likewise, **rtf** is the default for ".rtf", **html** for ".htm" or ".html", and **tex** for ".tex".

fixed produces a fixed-format ASCII table. This is suitable, for example, if the table be displayed in the Stata results window.

tab produces a tab-delimited ASCII table.

csv produces a CSV (Comma Separated Value format) table for use with Microsoft Excel. Delimiter is a comma. In order to prevent Excel from interpreting the contents of the table cells, they are enclosed double quotes preceded by an equal sign (i.e. ="..."). However, if the **plain** option is specified, the table cells are enclosed in double quotes without the leading equal sign. The first method is appropriate if you want to preserve the table's formatting. The second method is appropriate if you want to use the table's contents for further computations in Excel.

scsv is a variant on the CSV format that uses a semicolon as the delimiter. This is appropriate for some non-English versions of Excel (e.g. the German version).

rtf produces a Rich Text Format table for use with word processors.

html produces a simple HTML formatted table.

tex produces a LaTeX formatted table.

booktabs produces a LaTeX formatted table for use with LaTeX's *booktabs* package.

fragment causes the table's opening and closing specifications to be suppressed. This is relevant primarily in LaTeX and HTML mode.

page[**(***packages***)**] adds opening and closing code to define a whole LaTeX or HTML document. The default is to produce a raw table that can then be included into an existing LaTeX or HTML document. Specifying *packages* in parentheses causes **\usepackage{***packages***}** to be added to the preamble of the LaTeX document (note that the *booktabs* package is automatically loaded if **booktabs** is specified).

alignment(*string***)** may be used to specify the alignment of the models' columns in LaTeX, HTML, or RTF mode.

In LaTeX mode *string* should be a LaTeX column specifier. The default is to center the columns. To produce right-aligned columns, for example, type **alignment(r)**. If the table contains multiple columns per model/equation, the alignment specification should define all columns. For example, if the **wide** option is specified, you could type **alignment(cr)** to, say, center the point estimates and right-align the t-statistics. Note that more sophisticated column definitions are often needed to produce appealing results. In particular, LaTeX's *dcolumn* package proves useful to align columns on the decimal point.

In HTML mode *string* should be a HTML alignment specifier. The default is to omit alignment specification, which results in left aligned columns. To center the columns in HTML, for example, specify **alignment(center)**. Other than in LaTeX mode, the same alignment is used for all columns if the table contains multiple columns per model/equation in the HTML mode.

In RTF mode *string* should be one of **l**, **c**, **r**, and **j**. The default is to center the columns. To produce right-aligned columns, for example, type **alignment(r)**. The same alignment is used for all columns if the table contains multiple columns per model/equation in the RTF mode.

Note that **alignment()** does not change the alignment of the variable names/labels in the left stub of the table. They are always left-aligned.

width(*string***)** sets the overall width of the table in LaTeX or HTML. *string* should be LaTeX or HTML literal. For example, specify **width(\hsize)** in LaTeX or **width(100%)** in HTML to span the whole page. The table columns will spread regularly over the specified width. Note that in RTF mode **estout**'s **varwidth()** and **modelwidth()** options may be used to change the width of the table columns.

Output

replace permits **esta** to overwrite an existing file.

append specifies that the output be appended to an existing file. It may be used even if the file does not yet exist. Specifying **append** together with **page** in TeX or HTML mode causes the new table to be inserted at the end of the body of an existing document (**esta** seeks a line reading "\end{document}" or "</body>", respectively, and starts appending from there; contents after this line will be overwritten). In RTF mode, existing documents are assumed to end with a line containing a single "}".

type specifies that the assembled table be printed in the results window and the log file. This is the default unless **using** is specified.

noisily displays the executed **estout** command.

drop(*droplist***)** identifies the coefficients to be dropped from the table. A *droplist* comprises one or more specifications, separated by white space. A specification can be either a parameter name (e.g. **price**), an equation name followed by a colon (e.g. **mean:**), or a full name (e.g. **mean:price**). You may use the * and **?** wildcards in equation names and parameter names. Be sure to refer to the matched equation names, and not to the original equation names in the models, when using the **equations()** option to match equations.

keep(*keeplist***)** selects the coefficients to be included in the table. *keeplist* is specified analogous to *droplist* in **drop()** (see above).

order(*orderlist***)** changes the order of the coefficients and equations within the table. *orderlist* is specified analogous to *droplist* in **drop()** (see above). Coefficients and equations that do not appear in *orderlist* are placed last (in their original order).

equations(*eqmatchlist***)** specifies how the models' equations are to be matched. This option is passed to the internal call of **estimates table.** See help **estimates** on how to specify this option. The most common usage is **equations(1)** to match all the first equations in the models.

eform displays the regression table in exponentiated form. The exponent of a coefficient is displayed in lieu of the untransformed coefficient; standard errors and confidence intervals are transformed as well. Note that the intercept is dropped in eform-mode, unless **constant** is specified.

margin indicates that the marginal effects or elasticities be reported instead of the raw coefficients. A prerequisite for this option to work correctly is that **mfx** has been applied to a model prior to storing its results (see help **mfx**). Note that the standard errors, etc. are transformed as well. Furthermore, the intercept is dropped, unless **constant** is specified.

unstack specifies that the individual equations from multiple-equation models (e.g. **mlogit, reg3, heckman**) be placed in separate columns. The default is to place the equations below one another in a single column.

estout_options are any other **estout** options (see help **estout**). Note that **estout** options take precedence over **esta** options. For example,

cells() disables **b(), beta(), main(), t(), abs, not, se(), p(), ci(), aux(), star, staraux, parentheses,** and **brackets,**

stats() disables **r2(), ar2(), pr2(), aic(), bic(), scalars(), sfmt(), noobs,** and **obslast.**

Other **estout** options that should be used with care are **begin()**, **delimiter()**, **end()**, **prehead()**, **posthead()**, **prefoot()**, **postfoot()**, **mlabels()**, and **varlabels()**.

Numerical formats

Numerical display formats may be specified in **esta** as follows:

1. Official Stata's display formats: You may specify formats, such as **%9.0g** or **%8.2f**. See help format for a list of available formats.

2. Fixed format: You may specify an integer value such as **0**, **1**, **2**, etc. to request a display format with a fixed number of decimal places. For example, **t(3)** would display t-statistics with three decimal places.

3. Automatic format: You may specify **a1**, **a2**, **...**, or **a9** to cause **esta** to choose a reasonable display format for each number depending on the number's value. The # in **a#** determines the minimum precision according to the following rules:

   - Absolute numbers smaller than 1 are displayed with # significant decimal places (i.e. with # decimal places ignoring any leading zeros after the decimal point). For example, **0.00123456** is displayed as **0.00123** if the format is **a3**.

   - Absolute numbers greater than 1 are displayed with as many digits required to retain at least one decimal place and are displayed with a minimum of (# + 1) digits. For example, if the format is **a3**, **1.23456** is displayed as **1.235**, **12.3456** is displayed as **12.35**, and **1234.56** is displayed as **1234.6**.

   - In any case, integers are displayed with zero decimal places, and very large or very small absolute numbers are displayed in exponential format.

Examples

The following examples are intended to illustrate the basic usage of **esta**. They only scratch the surface. The procedure is to first fit and store some models and then apply **esta** to these stored estimates:

```
. sysuse auto
(1978 Automobile Data)
```

```
. quietly regress price weight mpg

. estimates store model1

. quietly regress price weight mpg foreign

. estimates store model2

. esta *, ar2
```

	(1) price	(2) price
weight	1.747**	3.465***
	(2.72)	(5.49)
mpg	-49.51	21.85
	(-0.57)	(0.29)
foreign		3673.1***
		(5.37)
_cons	1946.1	-5853.7
	(0.54)	(-1.73)
N	74	74
adj. R-sq	0.273	0.478

t statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001

The same table using labels:

```
. esta *, ar2 label
```

	(1) Price	(2) Price
Weight (lbs.)	1.747**	3.465***
	(2.72)	(5.49)
Mileage (mpg)	-49.51	21.85
	(-0.57)	(0.29)
Car type		3673.1***
		(5.37)

```
Constant                   1946.1         -5853.7
                           (0.54)         (-1.73)
--------------------------------------------------
Observations                   74              74
Adjusted R-squared          0.273           0.478
--------------------------------------------------
t statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001
```

Plain table:

```
. esta *, ar2 plain

                    model1       model2
weight            1.746559     3.464706
                  2.723238     5.493003
mpg              -49.51222      21.8536
                 -.5746808     .2944391
foreign                        3673.06
                               5.370142
_cons             1946.069    -5853.696
                   .541018    -1.733408
N                       74           74
adj. R-sq         .2734846     .4781119
```

Using standard errors in brackets and suppress significance stars:

```
. esta *, se nostar brackets

------------------------------------
                      (1)          (2)
                    price        price
------------------------------------
weight              1.747        3.465
                  [0.641]      [0.631]

mpg                -49.51        21.85
                  [86.16]      [74.22]

foreign                         3673.1
                               [684.0]

_cons               1946.1      -5853.7
                  [3597.0]     [3377.0]
------------------------------------
N                       74           74
------------------------------------
Standard errors in brackets
```

Printing beta coefficients:

```
. esta *, beta

--------------------------------------------
                    (1)             (2)
                  price           price
--------------------------------------------
weight             0.460**         0.913***
                  (2.72)          (5.49)

mpg               -0.097           0.043
                 (-0.57)          (0.29)

foreign                            0.573***
                                  (5.37)
--------------------------------------------
N                    74              74
--------------------------------------------
Standardized beta coefficients; t statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001
```

Returned results

esta returns in macro **r(estout)** a copy of the executed **estout** command (typing `**r(estout)**' after **esta** reproduces the table).

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Also see

Manual: **[R] estimates**

Online: help for **estimates**, estcom, **estout**, **estadd**, **esto**