Title

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estimates stats — Model-selection statistics

Syntax

estimates stats [*namelist*] [, n(#)]

where *namelist* is a name, a list of names, _all, or *. A name may be ., meaning the current (active) estimates. _all and * mean the same thing.

Menu

Statistics > Postestimation > Manage estimation results > Table of fit statistics

Description

estimates stats reports model-selection statistics, including the Akaike information criterion (AIC) and the Bayesian information criterion (BIC). These measures are appropriate for maximum likelihood models.

If estimates stats is used for a non–likelihood-based model, such as qreg, missing values are reported.

Option

n(#) specifies the N to be used in calculating BIC; see [R] **BIC note**.

Remarks and examples

If you type estimates stats without arguments, a table for the most recent estimation results will be shown:

```
. use http://www.stata-press.com/data/r13/auto
(1978 Automobile Data)

. logistic foreign mpg weight displ
 (output omitted)

. estimates stats
```

Akaike's information criterion and Bayesian information criterion

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
.	74	-45.03321	-20.59083	4	49.18167	58.39793

Note: N=Obs used in calculating BIC; see **[R] BIC note**

Regarding the note at the bottom of the table, N is an ingredient in the calculation of BIC; see [R] **BIC note**. The note changes if you specify the n() option, which tells estimates stats what N to use. $N = \text{Obs}$ is the default.

Regarding the table itself, ll(null) is the log likelihood for the constant-only model, ll(model) is the log likelihood for the model, df is the number of degrees of freedom, and AIC and BIC are the Akaike and Bayesian information criteria.

Models with smaller values of an information criterion are considered preferable.

estimates stats can compare estimation results:

```
. use http://www.stata-press.com/data/r13/auto
(1978 Automobile Data)

. logistic foreign mpg weight displ
(output omitted)

. estimates store full

. logistic foreign mpg weight
(output omitted)

. estimates store sub

. estimates stats full sub
```

Akaike's information criterion and Bayesian information criterion

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
full	74	-45.03321	-20.59083	4	49.18167	58.39793
sub	74	-45.03321	-27.17516	3	60.35031	67.26251

Note: N=Obs used in calculating BIC; see **[R] BIC note**

Stored results

estimates stats stores the following in r():

Matrices
   r(S)   matrix with 6 columns (N, ll0, ll, df, AIC, and BIC) and rows corresponding to models in table

Methods and formulas

See [R] **BIC note**.

Also see

[R] **estimates** — Save and manipulate estimation results