

**Bayesian estimation** — Bayesian estimation commands
[Description](#)[Video examples](#)[Also see](#)

## Description

Bayesian estimation in Stata is similar to standard estimation—simply prefix the estimation commands with `bayes:` (see [\[BAYES\] bayes](#)). You can also refer to [\[BAYES\] bayesmh](#) and [\[BAYES\] bayesml](#) [evaluators](#) for fitting more general Bayesian models.

The following estimation commands support the `bayes` prefix.

Command	Entry	Description
Linear regression models		
<code>regress</code>	<a href="#">[BAYES] bayes: regress</a>	Linear regression
<code>hetregress</code>	<a href="#">[BAYES] bayes: hetregress</a>	Heteroskedastic linear regression
<code>tobit</code>	<a href="#">[BAYES] bayes: tobit</a>	Tobit regression
<code>intreg</code>	<a href="#">[BAYES] bayes: intreg</a>	Interval regression
<code>truncreg</code>	<a href="#">[BAYES] bayes: truncreg</a>	Truncated regression
<code>mvreg</code>	<a href="#">[BAYES] bayes: mvreg</a>	Multivariate regression
Binary-response regression models		
<code>logistic</code>	<a href="#">[BAYES] bayes: logistic</a>	Logistic regression, reporting odds ratios
<code>logit</code>	<a href="#">[BAYES] bayes: logit</a>	Logistic regression, reporting coefficients
<code>probit</code>	<a href="#">[BAYES] bayes: probit</a>	Probit regression
<code>cloglog</code>	<a href="#">[BAYES] bayes: cloglog</a>	Complementary log-log regression
<code>hetprobit</code>	<a href="#">[BAYES] bayes: hetprobit</a>	Heteroskedastic probit regression
<code>binreg</code>	<a href="#">[BAYES] bayes: binreg</a>	GLM for the binomial family
<code>biprobit</code>	<a href="#">[BAYES] bayes: biprobit</a>	Bivariate probit regression
Ordinal-response regression models		
<code>ologit</code>	<a href="#">[BAYES] bayes: ologit</a>	Ordered logistic regression
<code>oprobit</code>	<a href="#">[BAYES] bayes: oprobit</a>	Ordered probit regression
<code>hetoprobit</code>	<a href="#">[BAYES] bayes: hetoprobit</a>	Heteroskedastic ordered probit regression
<code>zioprobit</code>	<a href="#">[BAYES] bayes: zioprobit</a>	Zero-inflated ordered probit regression
Categorical-response regression models		
<code>mlogit</code>	<a href="#">[BAYES] bayes: mlogit</a>	Multinomial (polytomous) logistic regression
<code>mprobit</code>	<a href="#">[BAYES] bayes: mprobit</a>	Multinomial probit regression
<code>clogit</code>	<a href="#">[BAYES] bayes: clogit</a>	Conditional logistic regression
Count-response regression models		
<code>poisson</code>	<a href="#">[BAYES] bayes: poisson</a>	Poisson regression
<code>nbreg</code>	<a href="#">[BAYES] bayes: nbreg</a>	Negative binomial regression
<code>gnbreg</code>	<a href="#">[BAYES] bayes: gnbreg</a>	Generalized negative binomial regression
<code>tpoisson</code>	<a href="#">[BAYES] bayes: tpoisson</a>	Truncated Poisson regression
<code>tnbreg</code>	<a href="#">[BAYES] bayes: tnbreg</a>	Truncated negative binomial regression
<code>zip</code>	<a href="#">[BAYES] bayes: zip</a>	Zero-inflated Poisson regression
<code>zinb</code>	<a href="#">[BAYES] bayes: zinb</a>	Zero-inflated negative binomial regression

### Generalized linear models

`glm` [BAYES] **bayes: glm**

Generalized linear models

### Fractional-response regression models

`fracreg` [BAYES] **bayes: fracreg**

Fractional response regression

`betareg` [BAYES] **bayes: betareg**

Beta regression

### Survival regression models

`streg` [BAYES] **bayes: streg**

Parametric survival models

### Sample-selection regression models

`heckman` [BAYES] **bayes: heckman**

Heckman selection model

`heckprobit` [BAYES] **bayes: heckprobit**

Probit regression with sample selection

`heckoprobit` [BAYES] **bayes: heckoprobit**

Ordered probit model with sample selection

### Multilevel regression models

`mixed` [BAYES] **bayes: mixed**

Multilevel linear regression

`metobit` [BAYES] **bayes: metobit**

Multilevel tobit regression

`meintreg` [BAYES] **bayes: meintreg**

Multilevel interval regression

`melogit` [BAYES] **bayes: melogit**

Multilevel logistic regression

`meprobit` [BAYES] **bayes: meprobit**

Multilevel probit regression

`mecloglog` [BAYES] **bayes: mecloglog**

Multilevel complementary log-log regression

`meologit` [BAYES] **bayes: meologit**

Multilevel ordered logistic regression

`meoprobit` [BAYES] **bayes: meoprobit**

Multilevel ordered probit regression

`mepoisson` [BAYES] **bayes: mepoisson**

Multilevel Poisson regression

`menbreg` [BAYES] **bayes: menbreg**

Multilevel negative binomial regression

`meglm` [BAYES] **bayes: meglm**

Multilevel generalized linear model

`mestreg` [BAYES] **bayes: mestreg**

Multilevel parametric survival regression

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## Video examples

[Introduction to Bayesian statistics, part 1: The basic concepts](#)

[Introduction to Bayesian statistics, part 2: MCMC and the Metropolis–Hastings algorithm](#)

## Also see

[BAYES] **bayes** — Bayesian regression models using the bayes prefix

[BAYES] **bayesmh** — Bayesian models using Metropolis–Hastings algorithm

[BAYES] **bayesmh evaluators** — User-defined evaluators with bayesmh

[BAYES] **Bayesian postestimation** — Postestimation tools for bayesmh and the bayes prefix

[BAYES] **Intro** — Introduction to Bayesian analysis

[BAYES] **Glossary**