set clevel — Set default credible level	

Description Syntax Option Remarks and examples Also see

Description

set clevel specifies the default credible level for credible intervals for all Bayesian commands (see [BAYES] **Bayesian commands**) that report credible intervals. The initial value is 95, meaning 95% credible intervals.

Syntax

```
set clevel # [, permanently]
```

is any number between 10.00 and 99.99 and may be specified with at most two digits after the decimal point.

Option

permanently specifies that in addition to making the change right now, the clevel setting be remembered and become the default setting when you invoke Stata.

Remarks and examples

To change the level of credible intervals reported by a particular command, you need not reset the default credible level. All commands that report credible intervals have a clevel(#) option. When you do not specify the option, the credible intervals are calculated for the default level set by set clevel or for 95% if you have not reset set clevel.

Example 1

We use the bayesmh command to obtain the credible interval for the mean of mpg:

```
. use https://www.stata-press.com/data/r19/auto
(1978 automobile data)
. set seed 14
. bayesmh mpg, likelihood(normal(30)) prior({mpg:_cons}, flat)
Burn-in ...
Simulation ...
Model summary
```

Likelihood:
 mpg ~ normal({mpg:_cons},30)
Prior:
 {mpg:_cons} ~ 1 (flat)

Bayesian normal regression Random-walk Metropolis-Hastings sampling Log marginal-likelihood = -234.09275				MCMC iterations Burn-in MCMC sample size Number of obs Acceptance rate Efficiency		12,500 2,500 10,000 74 .4195 .2378
mpg	Mean	Std. dev.	MCSE	Median	Equal- [95% cred.	tailed interval]
_cons	21.30364	.6429995	.013186	21.30381	20.03481	22.5555

To obtain 90% credible intervals, we would type

```
. bayesmh, clevel(90)
Model summary
Likelihood:
  mpg ~ normal({mpg:_cons},30)
Prior:
  {mpg:_cons} ~ 1 (flat)
                                                                          12,500
Bayesian normal regression
                                                  MCMC iterations =
Random-walk Metropolis-Hastings sampling
                                                  Burn-in
                                                                           2,500
                                                                   =
                                                  MCMC sample size =
                                                                          10,000
                                                  Number of obs =
                                                                              74
                                                  Acceptance rate =
                                                                           .4195
Log marginal-likelihood = -234.09275
                                                  Efficiency
                                                                   =
                                                                           .2378
                                                               Equal-tailed
                           Std. dev.
                                          MCSE
                                                   Median
                                                           [90% cred. interval]
         mpg
                    Mean
       _cons
                21.30364
                           .6429995
                                       .013186
                                                 21.30381
                                                            20.24172
                                                                        22.35158
```

or we could type

. set clevel 9	90					
. bayesmh						
Model summary						
Likelihood: mpg ~ normal	l({mpg:_cons]	·,30)				
Prior: {mpg:_cons}	~ 1 (flat)					
Bayesian normal regression				MCMC ite	rations =	12,500
Random-walk Metropolis-Hastings sampling				Burn-in =		2,500
				MCMC sample size = 10,00		
				Number of obs =		74
				Acceptance rate =		.4195
Log marginal-likelihood = -234.09275				Efficiency =		.2378
					Equal-	tailed
mpg	Mean	Std. dev.	MCSE	Median	[90% cred.	interval]
_cons	21.30364	.6429995	.013186	21.30381	20.24172	22.35158

If we opt for the second alternative, the next time that we fit a model, 90% credible intervals will be reported. If we wanted 95% credible intervals, we could specify clevel(95) on the estimation command, or we could reset the default by typing set clevel 95.

The current setting of clevel() is stored as the c-class value c(clevel); see [P] creturn.

Also see

- [BAYES] bayes Bayesian regression models using the bayes prefix
- [BAYES] bayesmh Bayesian models using Metropolis-Hastings algorithm
- [BAYES] Bayesian estimation Bayesian estimation commands
- [R] query Display system parameters
- [P] creturn Return c-class values

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