

**grmeanby** — Graph means and medians by categorical variables

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## Description

`grmeanby` graphs the (optionally weighted) means or medians of *varname* according to the values of the variables in *varlist*. The variables in *varlist* may be string or numeric and, if numeric, may be labeled.

## Quick start

Graph means of *v1* for each level of categorical variables *cvar1*, *cvar2*, and *cvar3*

```
grmeanby cvar1 cvar2 cvar3, sum(v1)
```

Same as above, but graph medians

```
grmeanby cvar1 cvar2 cvar3, sum(v1) median
```

Same as above, but use + as the marker

```
grmeanby cvar1 cvar2 cvar3, sum(v1) median msymbol(+)
```

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## Syntax

```
grmeanby varlist [if] [in] [weight], summarize(varname) [options]
```

<i>options</i>	Description
Main	
* <u>summarize</u> ( <i>varname</i> )	graph mean (or median) of <i>varname</i>
<u>median</u>	graph medians; default is to graph means
Plot	
<i>cline_options</i>	change look of the lines
<i>marker_options</i>	change look of markers (color, size, etc.)
<i>marker_label_options</i>	add marker labels; change look or position
Y axis, X axis, Titles, Legend, Overall	
<i>twoway_options</i>	any options other than by() documented in [G-3] <i>twoway_options</i>

\*summarize(*varname*) is required.

*aweight*s and *fweight*s are allowed; see [U] 11.1.6 **weight**.

## Options

### Main

summarize(*varname*) is required; it specifies the name of the variable whose mean or median is to be graphed.

median specifies that the graph is to be of medians, not means.

### Plot

*cline\_options* affect the rendition of the lines through the markers, including their color, pattern, and width; see [G-3] *cline\_options*.

*marker\_options* affect the rendition of markers drawn at the plotted points, including their shape, size, color, and outline; see [G-3] *marker\_options*.

*marker\_label\_options* specify if and how the markers are to be labeled; see [G-3] *marker\_label\_options*.

### Y axis, X axis, Titles, Legend, Overall

*twoway\_options* are any of the options documented in [G-3] *twoway\_options*, excluding by(). These include options for titling the graph (see [G-3] *title\_options*) and for saving the graph to disk (see [G-3] *saving\_option*).

## Remarks and examples

[stata.com](http://www.stata.com)

The idea of graphing means of categorical variables was shown in Chambers and Hastie (1992, 3). Because this was shown in the context of an S function for making such graphs, it doubtless has roots going back further than that. `grmeanby` is, in any case, another implementation of what we will assume is their idea.

