cat_axis_label_options - Options for specifying look of categorical axis labels

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Description

The *cat_axis_label_options* determine the look of the labels that appear on a categorical x axis produced by graph bar, graph hbar, graph dot, and graph box; see [G-2] graph bar, [G-2] graph dot, and [G-2] graph box. These options are specified inside label() of over():

. graph ..., over(varname, ... label(cat_axis_label_options) ...)

The most useful *cat_axis_label_options* are angle(), alternate, labcolor(), and labsize().

Quick start

Increase size of categorical axis labels by 20% for plots drawn over categorical variable catvar
graph_command ..., over(catvar, label(labsize(*1.2)))

Place the categorical axis labels at a 45-degree angle
 graph_command ..., over(catvar, label(angle(45)))

Alternate the placement of labels to increase space between adjacent labels graph_command ..., over(catvar, label(alternate))

Make the categorical axis labels green
 graph_command ..., over(catvar, label(labcolor(green)))

Suppress the display of labels on the categorical axis
 graph_command ..., over(catvar, label(nolabels))

Note: Categorical axis-label options can be used only with graph bar, graph box, graph dot, or graph hbar.

Syntax

cat_axis_label_options	Description
nolabels	suppress axis labels
<u>tick</u> s	display axis ticks
angle(<i>anglestyle</i>)	angle of axis labels
<u>alt</u> ernate	offset adjacent labels
<pre>tstyle(tickstyle)</pre>	labels and ticks: overall style
labgap(size)	labels: margin between tick and label
labstyle(<i>textstyle</i>)	labels: overall style
<pre>labsize(textsizestyle)</pre>	labels: size of text
<pre>labcolor(colorstyle)</pre>	labels: color and opacity of text
<u>tl</u> ength(<i>size</i>)	ticks: length
tposition(<u>o</u> utside <u>c</u> rossing <u>i</u> nside)	ticks: position/direction
tlstyle(<i>linestyle</i>)	ticks: linestyle of
tlwidth(linewidthstyle)	ticks: thickness of line
tlcolor(colorstyle)	ticks: color and opacity of line

Options

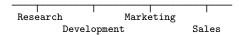
- nolabels suppresses display of category labels on the axis. For graph bar and graph hbar, the nolabels option is useful when combined with the blabel() option used to place the labels on the bars themselves; see [G-3] *blabel_option*.
- ticks specifies that ticks appear on the categorical x axis. By default, ticks are not presented on categorical axes, and it is unlikely that you would want them to be.
- angle(*anglestyle*) specifies the angle at which the labels on the axis appear. The default is angle(0), meaning horizontal. With vertical bar charts and other vertically oriented charts, it is sometimes useful to specify angle(90) (vertical text reading bottom to top), angle(-90) (vertical text reading top to bottom), or angle(-45) (angled text reading top left to bottom right); see [G-4] *anglestyle*.

Unix users: if you specify angle(-45), results will appear on your screen as if you specified angle(-90); results will appear correctly when you print.

alternate causes adjacent labels to be offset from one another and is useful when there are many labels or when labels are long. For instance, rather than obtaining an axis labeled,

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with alternate, you obtain



tstyle(*tickstyle*) specifies the overall look of labels and ticks; see [G-4] *tickstyle*. Here the emphasis is on labels because ticks are usually suppressed on a categorical axis. The options documented below will allow you to change each attribute of the label and tick, but the *tickstyle* specifies the starting point.

You need not specify tstyle() just because there is something you want to change about the look of labels and ticks. You specify tstyle() when another style exists that is exactly what you desire or when another style would allow you to specify fewer changes to obtain what you want.

- labgap(size), labstyle(textstyle), labsize(textsizestyle), and labcolor(colorstyle) specify details about how the labels are presented. Of particular interest are labsize(textsizestyle), which specifies the size of the labels, and labcolor(colorstyle), which specifies the color of the labels; see [G-4] textsizestyle and [G-4] colorstyle for a list of text sizes and color choices. Also see [G-4] size and [G-4] textstyle.
- tlength(size) specifies the overall length of the ticks; see [G-4] size.
- tposition(outside | crossing | inside) specifies whether the ticks are to extend outside (from the axis out, the usual default), crossing (crossing the axis line, extending in and out), or inside (from the axis into the plot region).
- tlstyle(*linestyle*), tlwidth(*linewidthstyle*), and tlcolor(*colorstyle*) specify other details about the look of the ticks. Ticks are just lines. See [G-4] **Concept: lines** for more information.

Remarks and examples

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You draw a bar, dot, or box plot of empcost by division:

. graph ... empcost, over(division)

Seeing the result, you wish to make the text labeling the divisions 20% larger. You type:

. graph ... empcost, over(division, label(labsize(*1.2)))

Also see

- [G-2] graph bar Bar charts
- [G-2] graph box Box plots
- [G-2] graph dot Dot charts (summary statistics)

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