cat_axis_label_options — Options for specifying look of categorical axis labels

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
ticks	display axis ticks
angle(*anglestyle*)	angle of axis labels
alternate	offset adjacent labels
tstyle(*tickstyle*)	labels and ticks: overall style
labgap(*size*)	labels: margin between tick and label
labstyle(*textstyle*)	labels: overall style
labsize(*textsizestyle*)	labels: size of text
labcolor(*colorstyle*)	labels: color and opacity of text
tlength(*size*)	ticks: length
tposition(outside | crossing | inside)	ticks: position/direction
tlstyle(*linestyle*)	ticks: linestyle of
tlwidth(*linewidthstyle*)	ticks: thickness of line
tlcolor(*colorstyle*)	ticks: color and opacity of line

Options

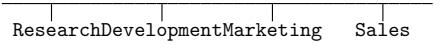
nolabels suppresses display of category labels on the axis. For graph bar and graph hbar, the nolabels option is useful when combined with the blabel() option used to place the labels on the bars themselves; see [G-3] ***blabel_option***.

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.

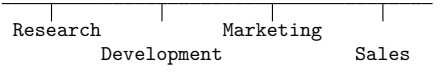
angle(*anglestyle*) specifies the angle at which the labels on the axis appear. The default is angle(0), meaning horizontal. With vertical bar charts and other vertically oriented charts, it is sometimes useful to specify angle(90) (vertical text reading bottom to top), angle(-90) (vertical text reading 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,



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

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)