

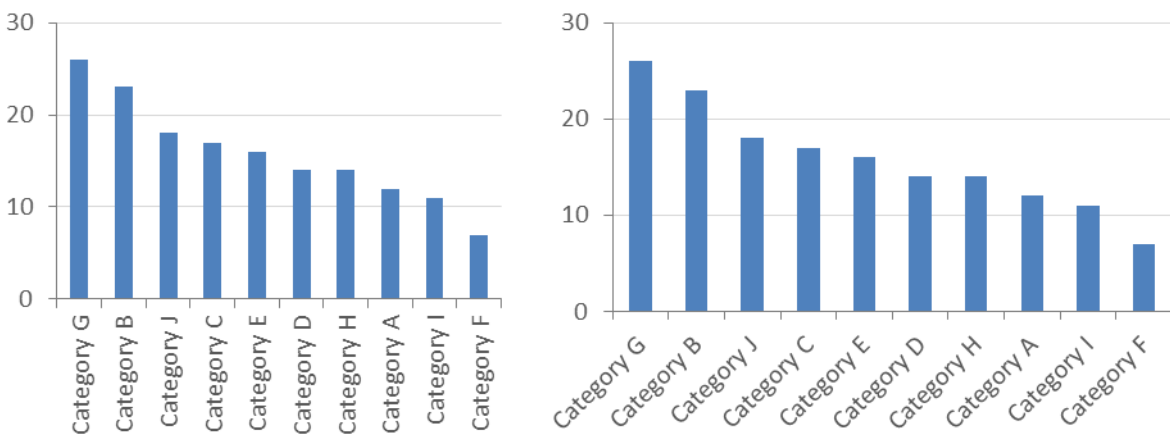
## The Language of Bar Charts Speaks Both Vertically and Horizontally

By Jeffrey A. Shaffer

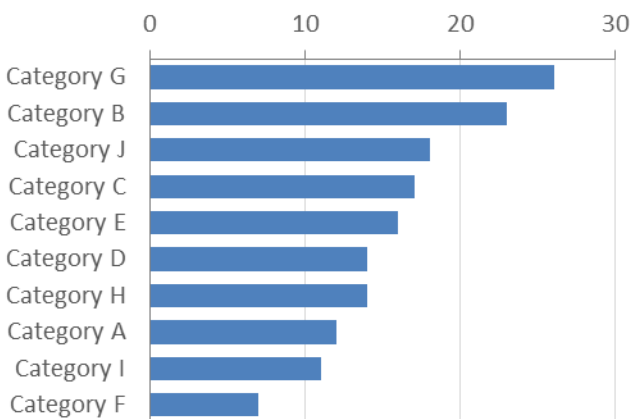
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It is always best to avoid rotated text when creating data visualizations and this seems to be one of the most common problems that I see with data visualizations. This might be due to the fact that tools like Microsoft Excel rotates axis labels automatically in many situations and people don't make any adjustments to these defaults. Even Tableau, which generally has better practices built into the defaults, rotates axis labels in many situations. In fact, Tableau doesn't even allow the user to rotate the y-axis title and requires a work around to show the y-axis title horizontally.

The most common problem with rotated text is the x-axis labels. Often time it's simply the length of the labels that force the software to rotate the text. Consider these bar charts below.



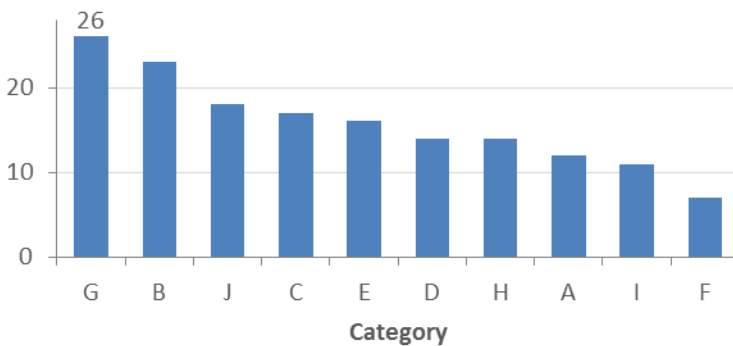
As I tell my data visualization students, *the language of bar charts speaks both vertically and horizontally*. In this case the easiest thing to do is to rotate the entire chart. By doing so the axis labels can be read easily, without tilting you head, and the bars have the same function as they did when they were vertical.



The only exception to rotating a chart from vertical bars to horizontal bars is when dealing with time series data. Time series data is always best on the x-axis (and typically in a line chart). Therefore, don't rotate or reorder time series data.

If you feel you must use vertical bars for some reason then consider other options to avoid rotating text (see the article *Exploring All of Your Options* for more detail on Time Series data and other options).

Here's an alternative in this particular example.



I hope this information will help you avoid rotating text on your data visualizations.

Sincerely,

Jeffrey A. Shaffer