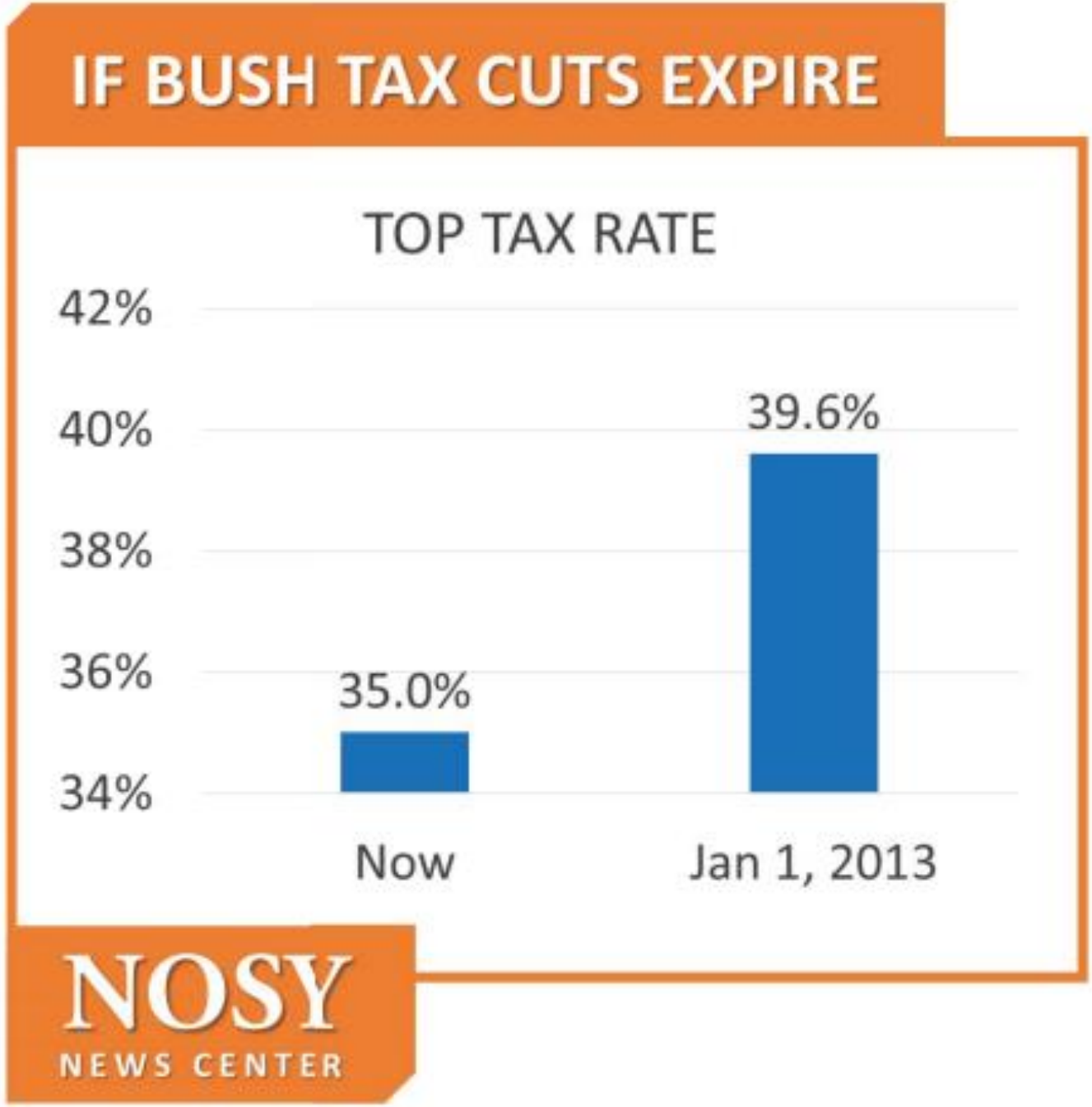
Data Visualization

Essential Design Principles for Visualization

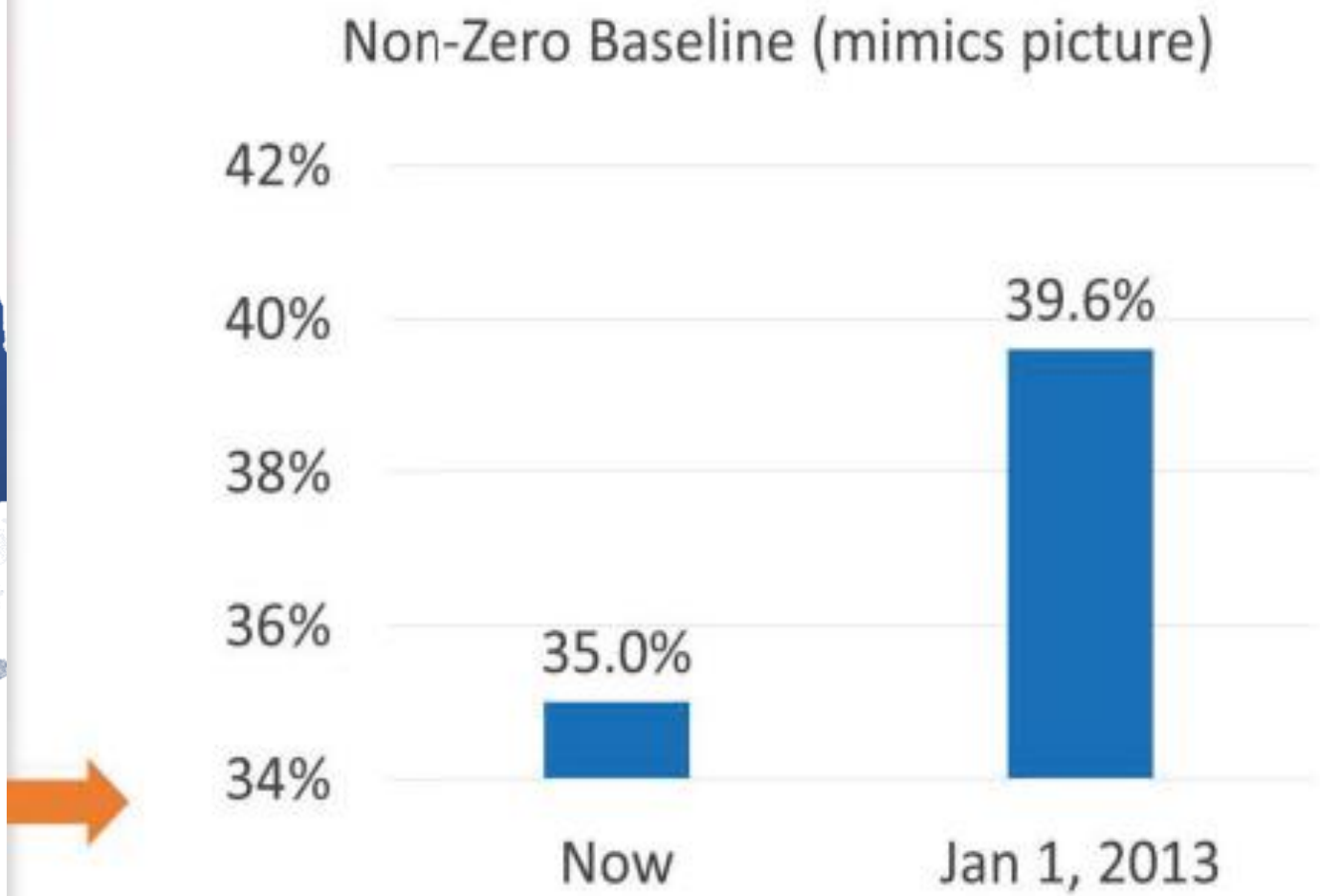
Practicing Good Ethics in Data Visualization

Bar Charts are easy to interpret

Our eyes compare the endpoints of the bar



Bar graphs traditionally have zero as the baseline



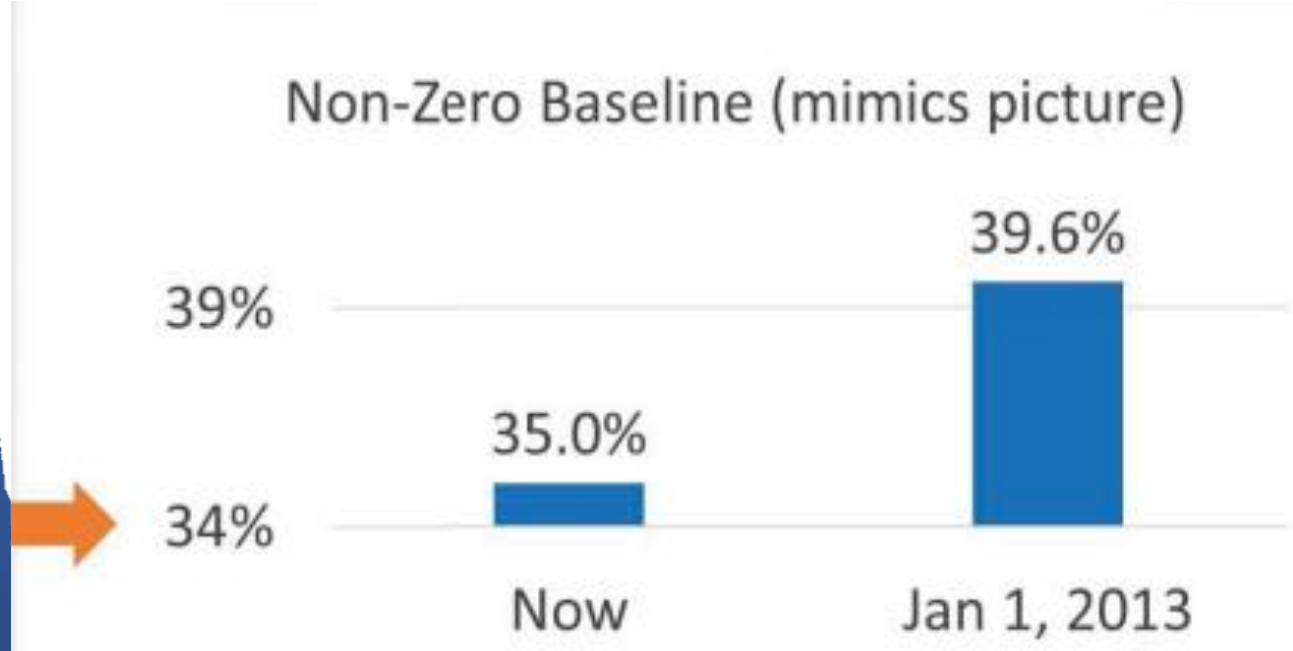
Standard practice for bar graphs:

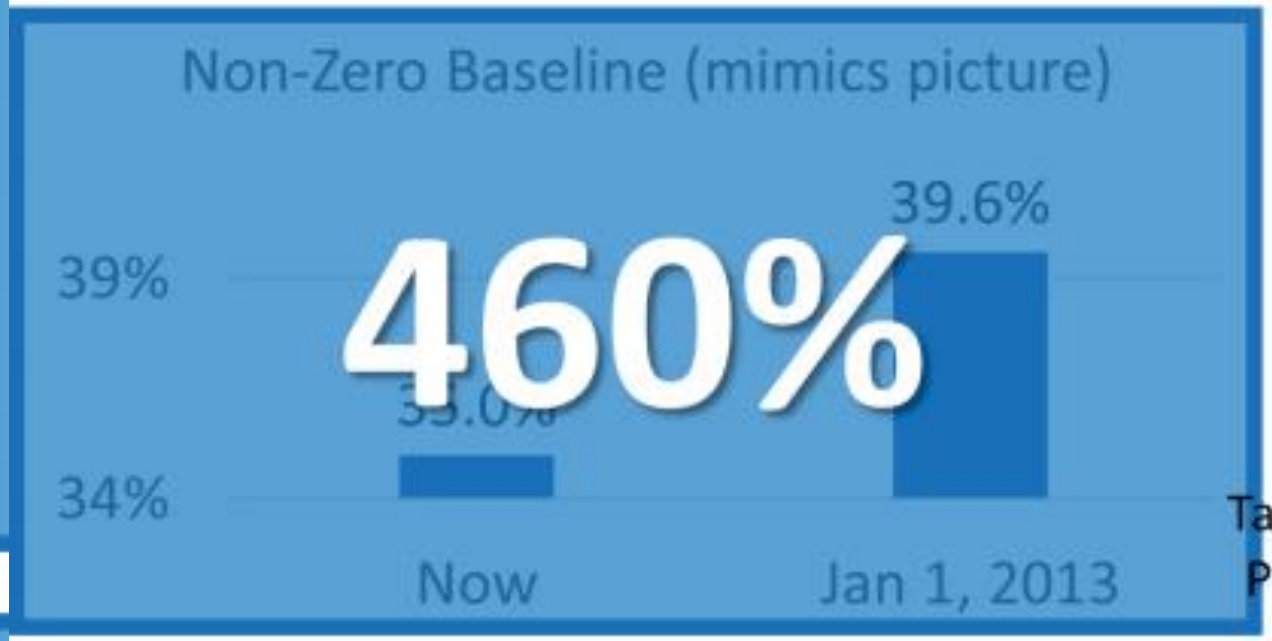
Start your baseline at zero

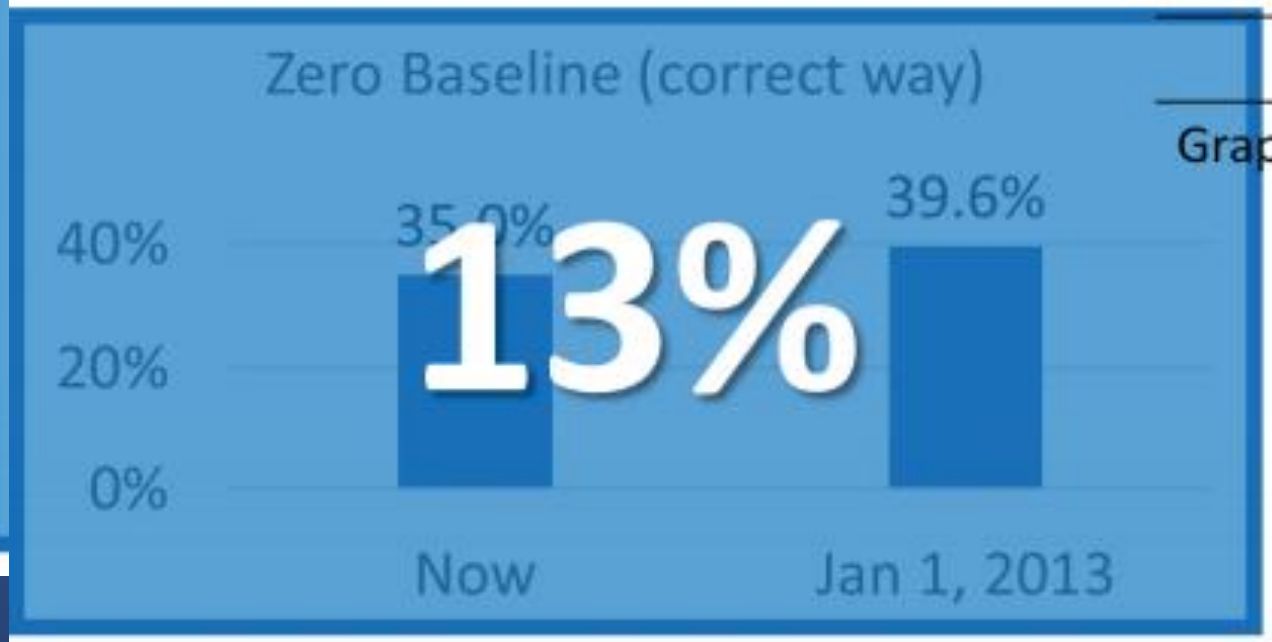
Do not confuse or annoy the data consumer

Same data

Different baseline



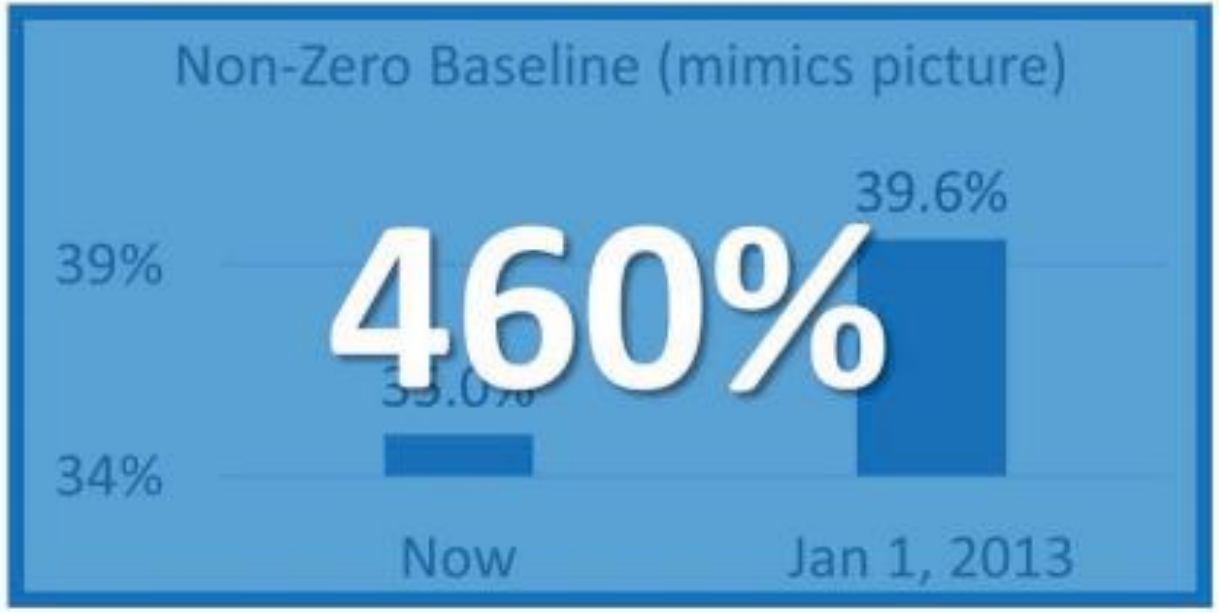


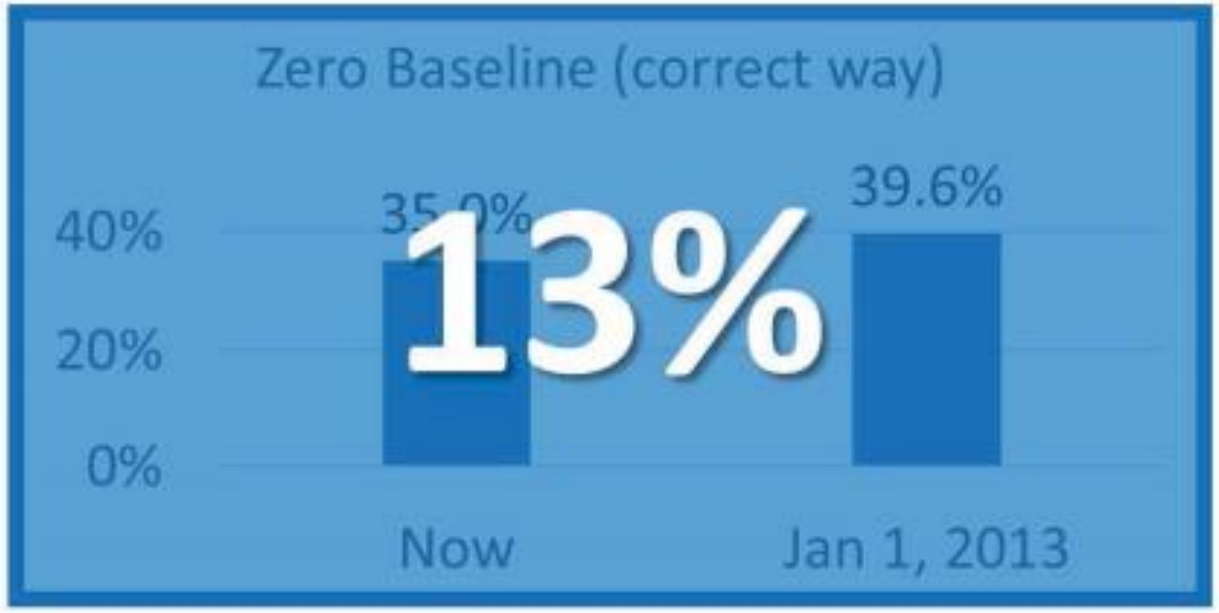


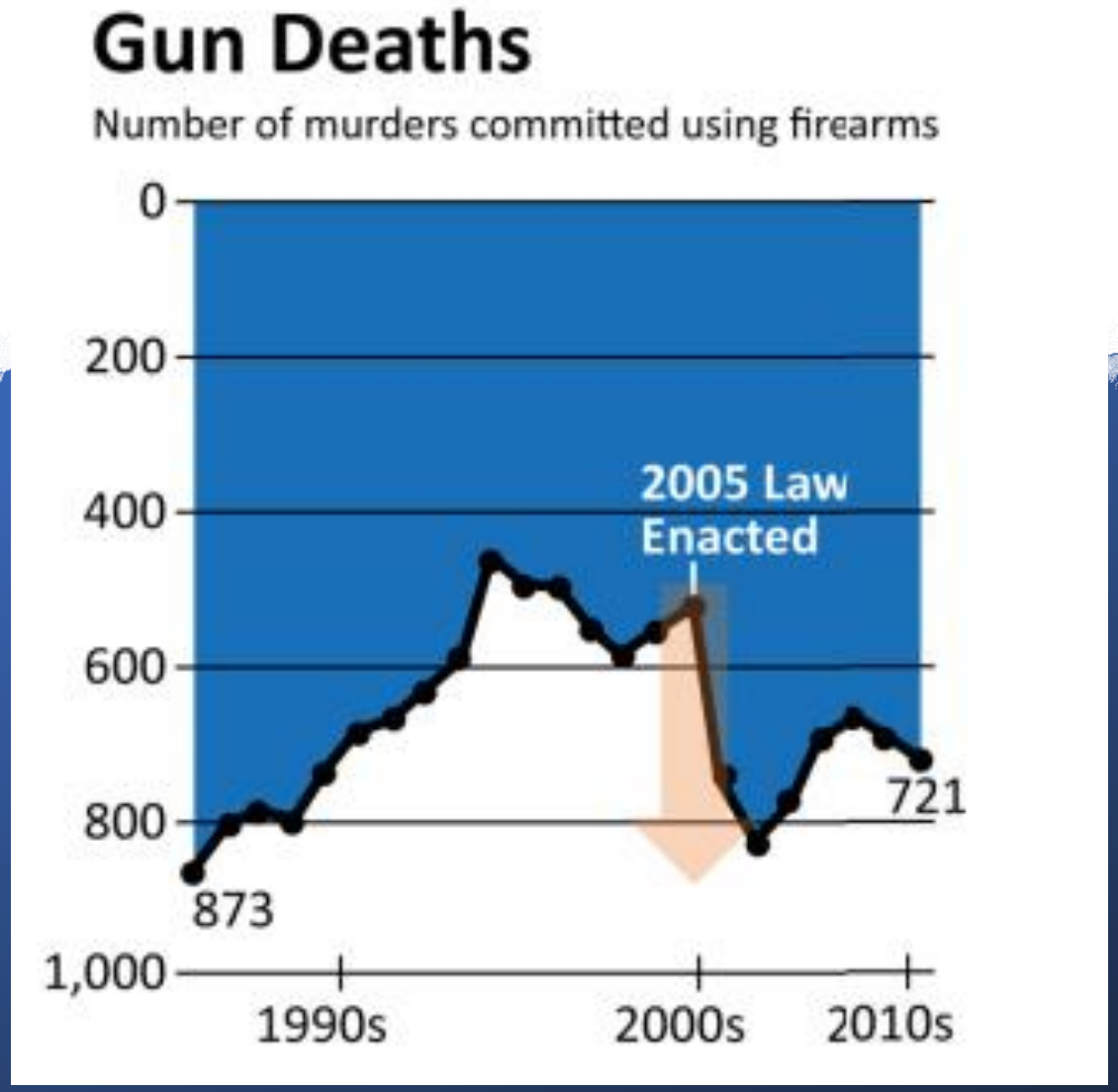
	Non-Zero Baseline Nosy News		Zero Baseline The Correct Way	
	Now	Jan, 1 2013	Now	Jan, 1 2013
Taxes (Graph Percentage)	35%	39.6%	35%	39.6%
Baseline	34	34	0	0
Difference	1	5.6	35	39.6
Graph Visual %	460% (5.6-1) x 100=460		13%	

This graph misleads the user

Reduce the credibility of the new outlet





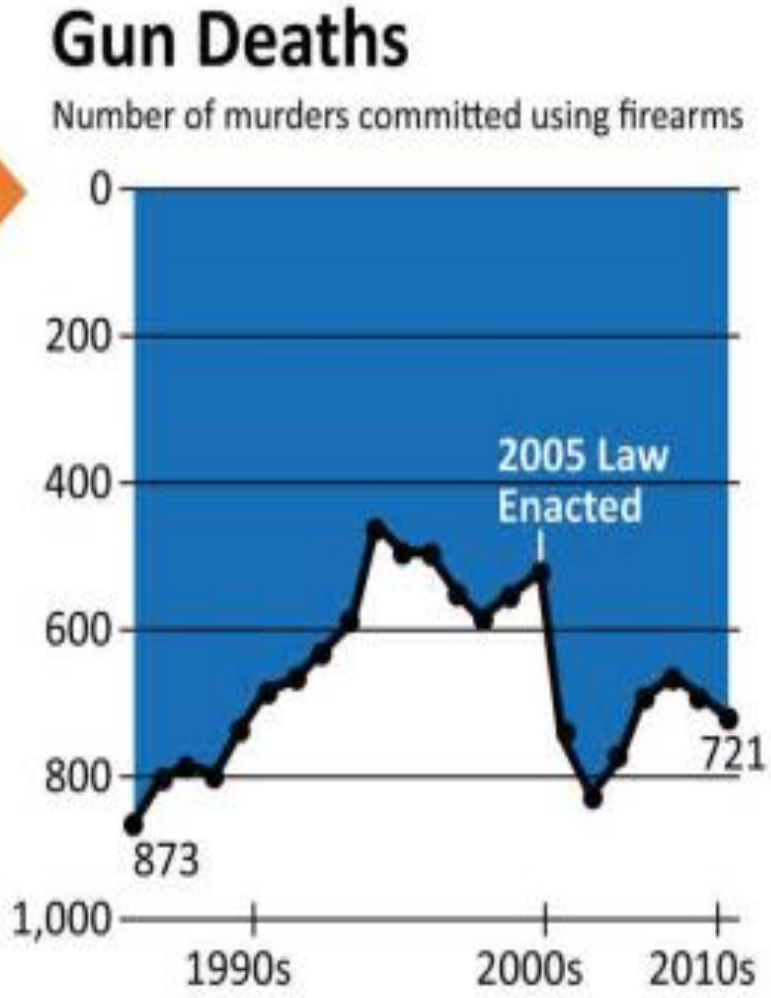


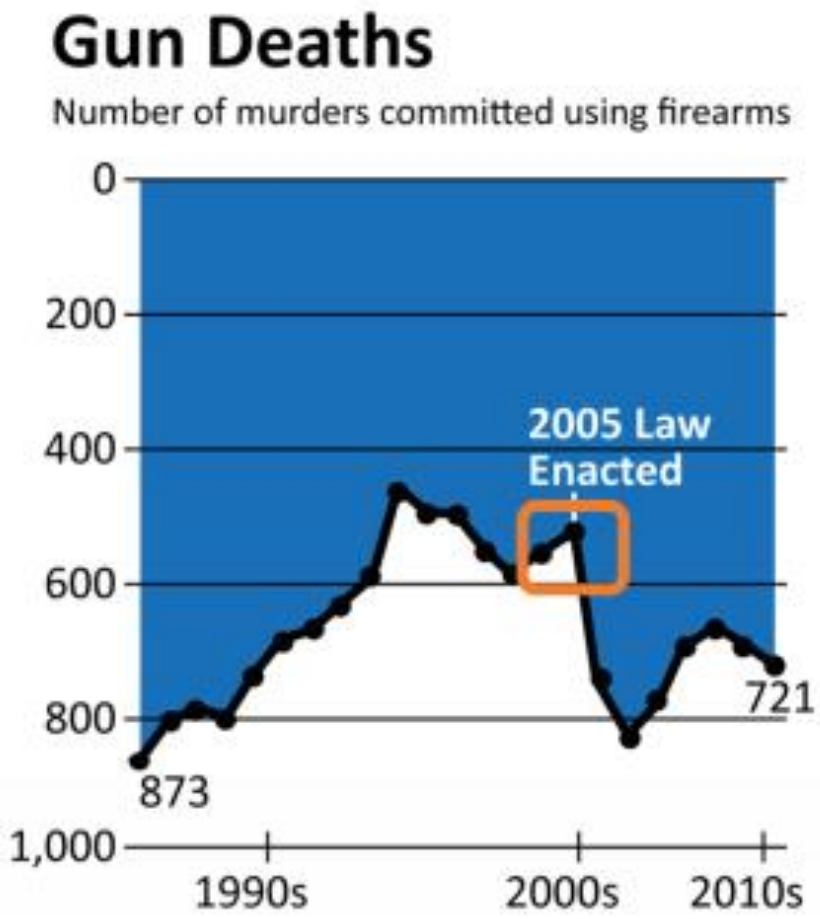
- Did you assume that there was a sharp decrease in gun deaths after 2005?

Note where the 0 is on the Y-axis

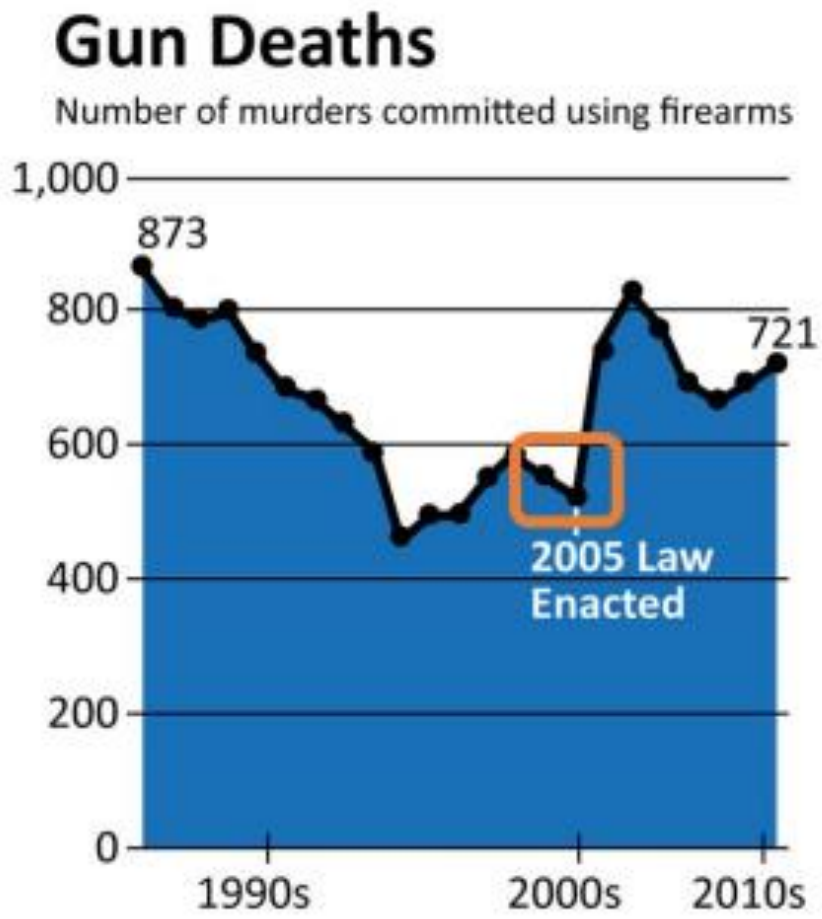
This is opposite to how graphs are typically drawn

Gun deaths actually increased





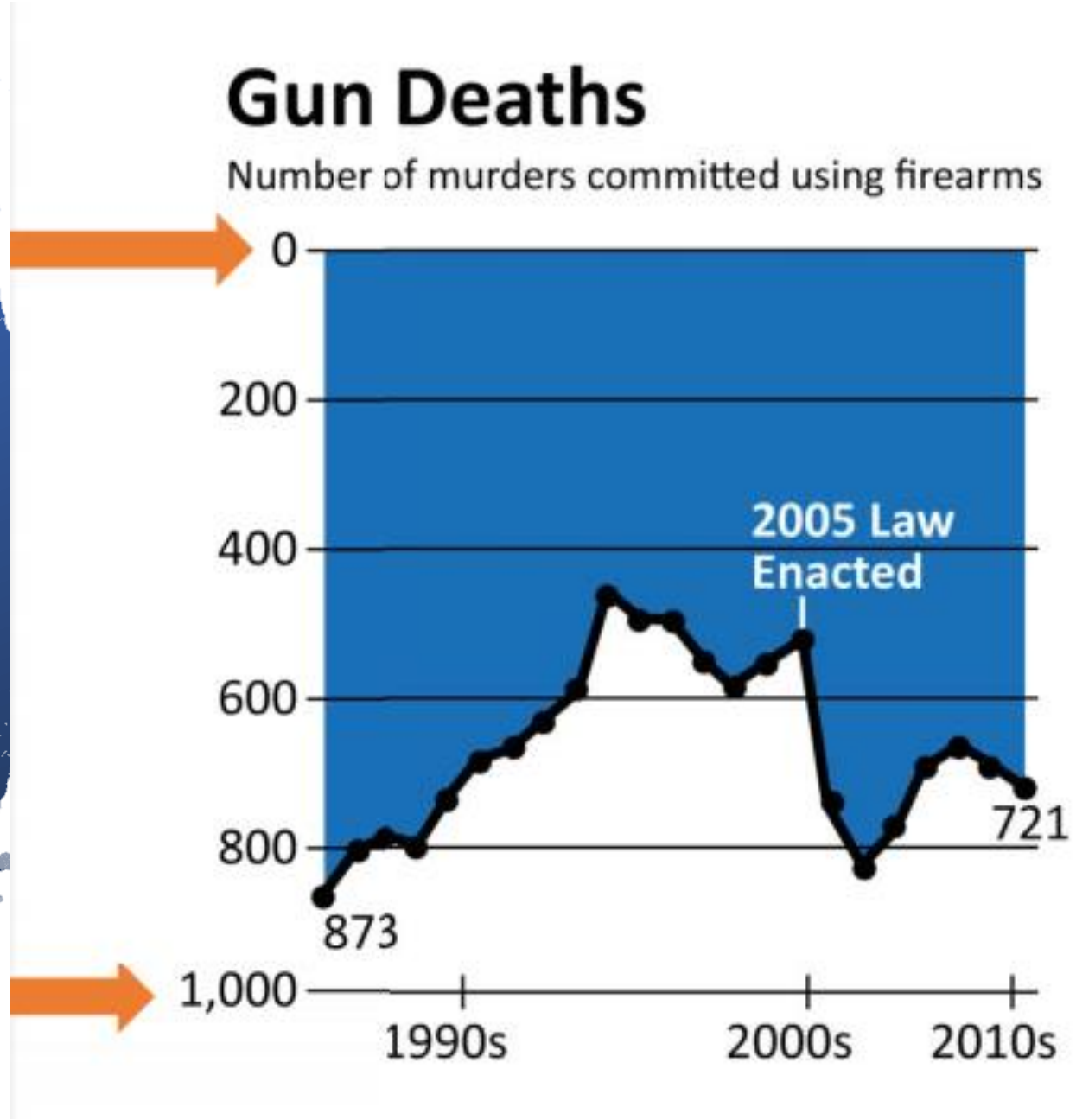
Note the increase in gun deaths after the law was enacted



- Note the increase in gun deaths after the law was enacted

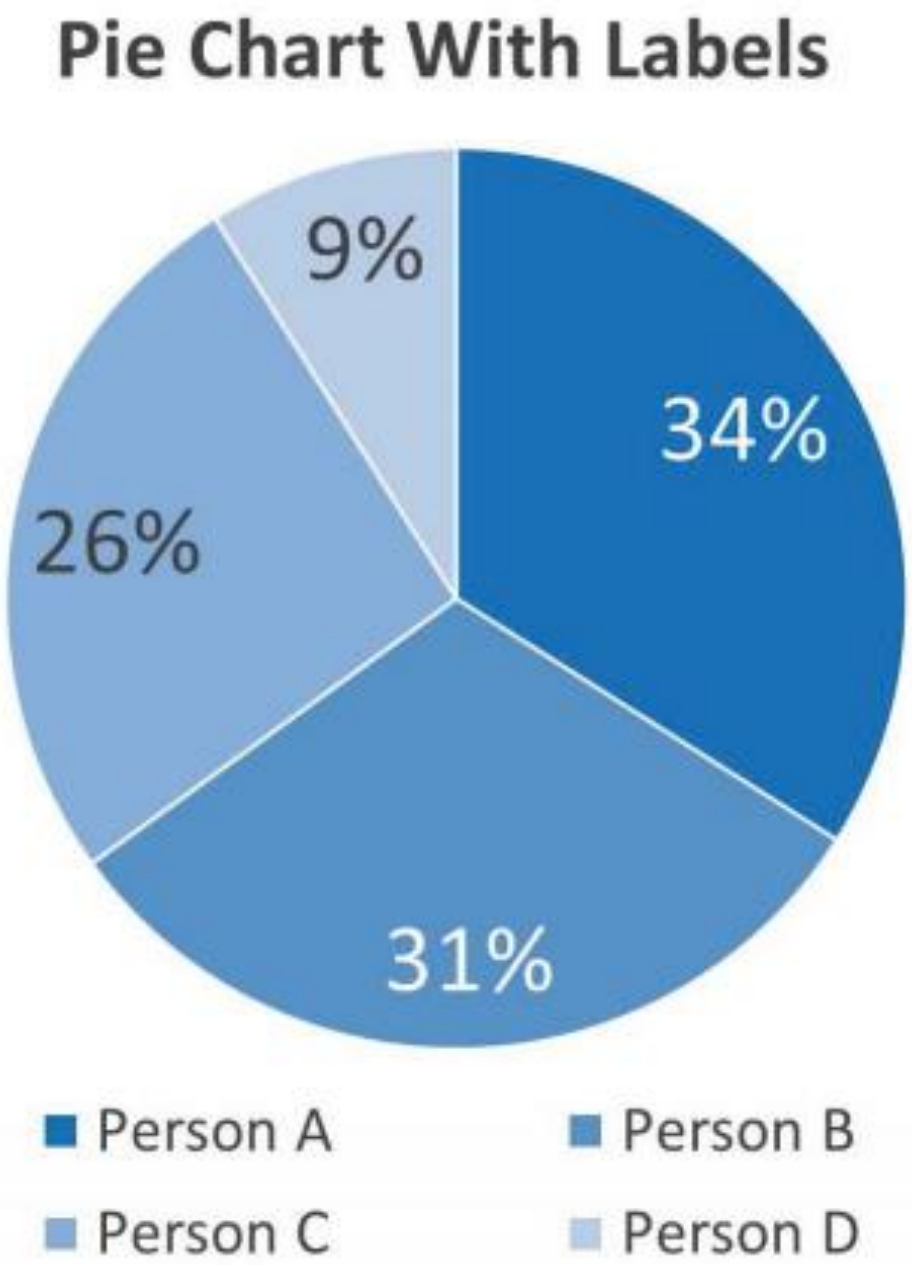
User should not have to deviate from standard ways of presenting graphs

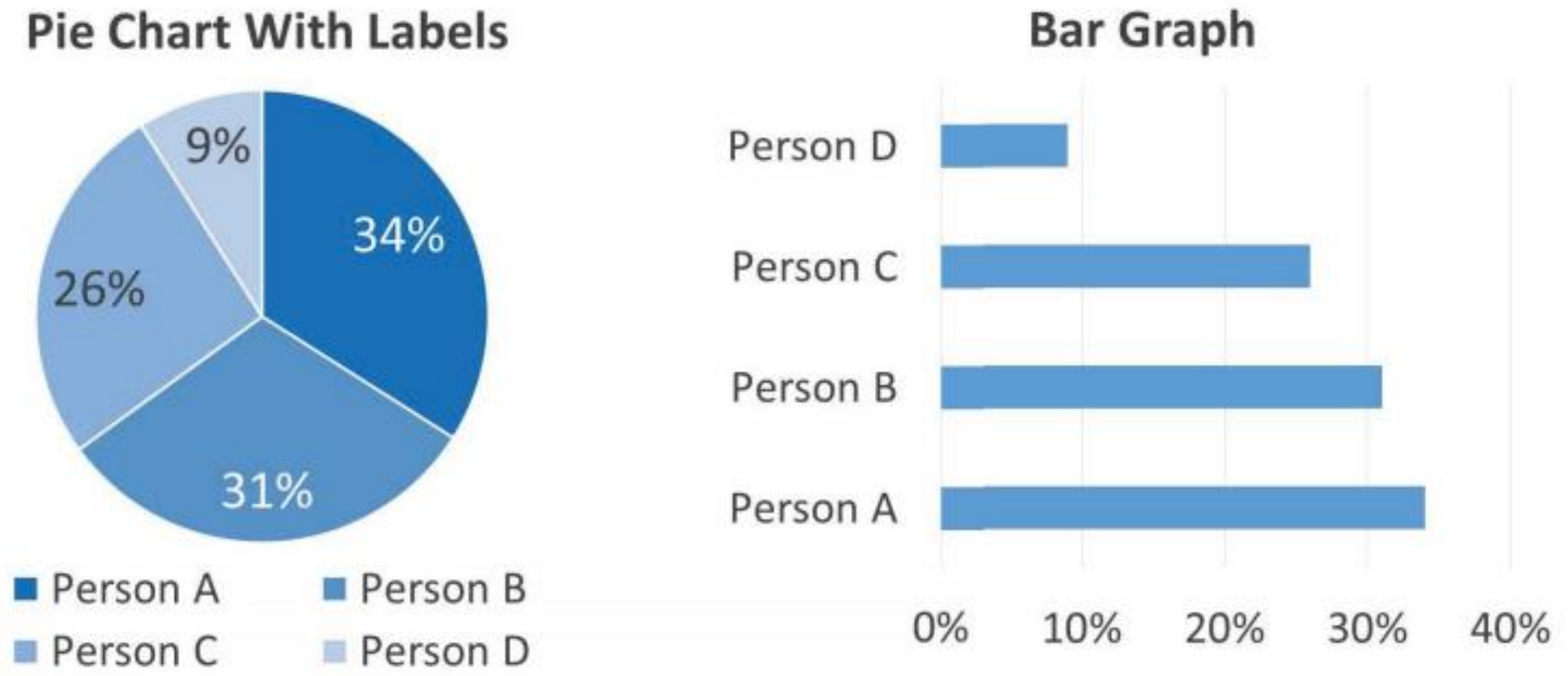
Clearly state any deviations



One of the most widely used visualizations

Seems to be an ideal way to show percentages

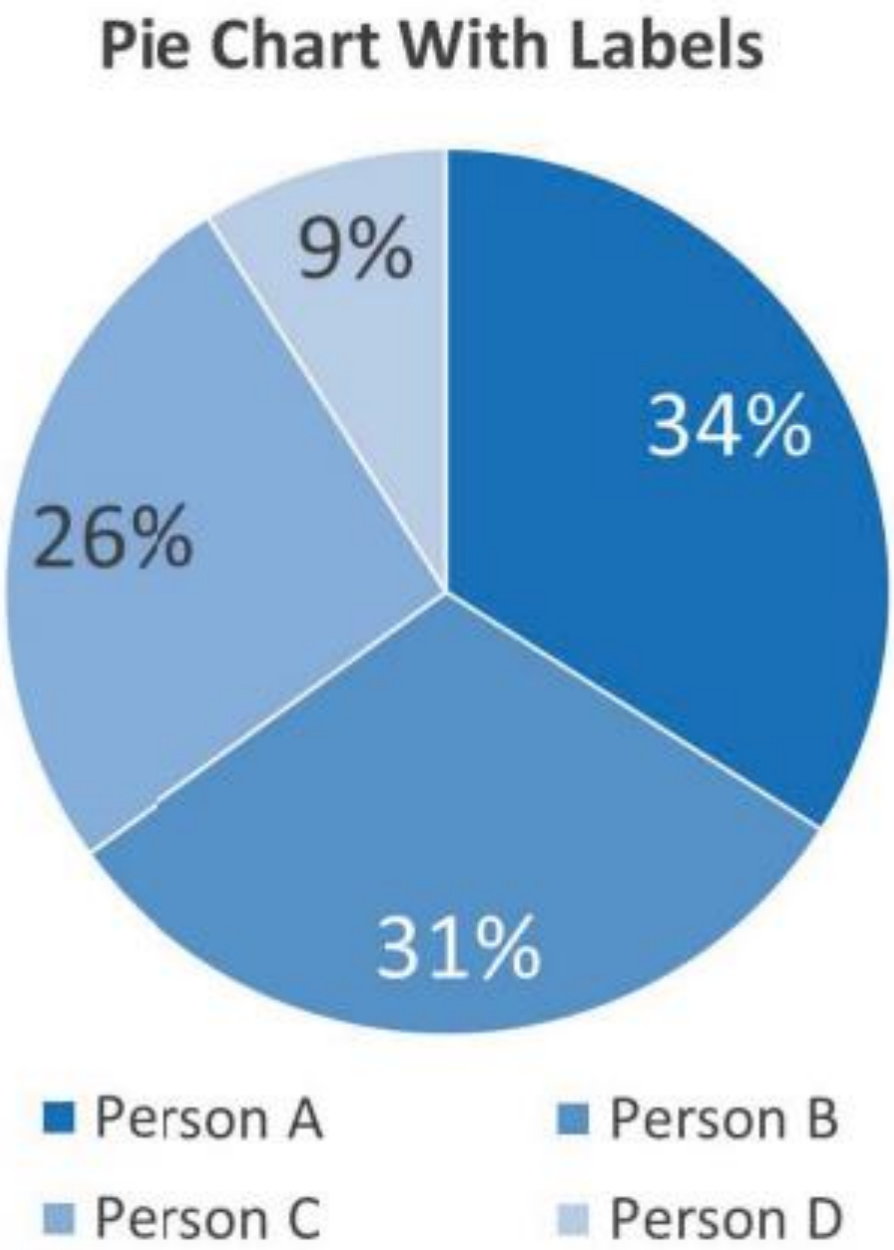
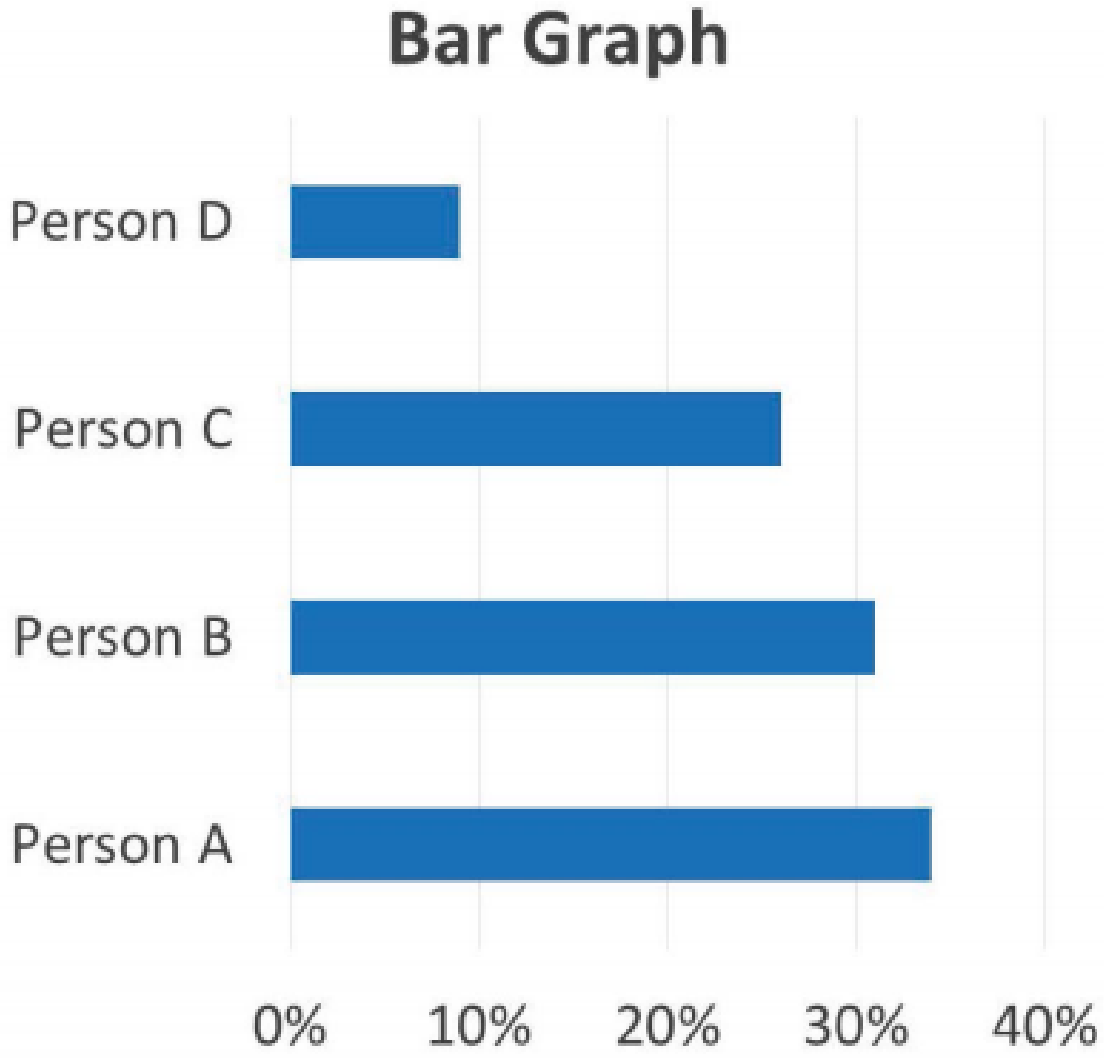




Use a bar chart instead

The pie wedges look roughly the same

The percentage labels are necessary to be sure



The bar graph more clearly distinguishes the percentages