

Data Visualization Rubric

Small Mistakes (-1 point each): Small mistakes can be defined as technical errors that can be easily fixed with a line of code or two.	Big Mistakes (-2 points each): Big mistakes can be defined as errors that stand in the way of the audience's correct interpretation of the graph.	Writing Mistakes (-2 points each)
<ul style="list-style-type: none"> • Text is too small to comfortably read (not more than a factor of 2 smaller than normal text in notebook). • Scientific notation badly typeset. • Axis labels contain percentages larger than 300%. • Axis labels contain more than 4 consecutive zeroes. • Axis labels do not contain units (e.g., US dollars, \$, days, etc.). • Symbols too small to easily make out color. • Output is not publication ready (e.g., pixelated, does not allow for zooming in to review details, etc.). • Plot real estate ineffectively used (wasted space, too much white space, etc.). • Chart is cluttered, aesthetics do not add to the idea being communicated. • Legend is poorly aligned, covers information in visual display. • Order of legend does not match the order in the plot. 	<ul style="list-style-type: none"> • Scale is reversed and/or out of context, wrong numbers are used. • Scale of axis does not match or make sense with the area under the graph. • Numbers are inappropriately juxtaposed. • Legend is inaccurate, inadequate, or missing. • Color contrast impairs legibility/interpretability. • Color legend missing when needed. • Too many overlapping bars cause hidden colors, confusion. • Data improperly transformed/encoded. • Titles or captions have wrong numbers or conclusions (wrongly labeled percentages, variables, etc.) • Format is inappropriate for the type of dataset (e.g., a visualization is used when the data could have been communicated in a table, a histogram is used to communicate information about a categorical variable, etc.) • The data visualization displays a "data-poor" fact, does not use enough values from the dataset (e.g., pairs of numbers that add up to 100%, less than 20 values from the dataset are used). 	<ul style="list-style-type: none"> • Submission does not include an adequate citation, with the name of the dataset, author, publisher, date, and source of the data. • Captions missing information such as time frame, geographic scope, etc. • The wrong things are studied/reported, including audience-engaging matters that are irrelevant for decision making. • Post-hoc reporting about the extremity of the extremes. • Graphics are not integrated with text or descriptions. • Captions/descriptions are too long and contain unnecessary or irrelevant information. • Spelling, grammar errors abound.

This rubric will be updated as the semester moves on. The rubric was last updated on October 4, 2022.