Checklist for Good Graphs and Charts

Axes

• Are both axes labeled?
• Are the axis labels self-explanatory and concise?
• Are the scale and divisions shown on both axes?
• Are the min and max ranges appropriate?
• Are the units indicated?

Lines/Curves/Points

• Is the number of lines/curves reasonably small?
• Are any lines/curves labeled?
• Are all symbols clearly distinguishable (color and shape)?
• Is there a concise, clear legend?
• Does the legend obscure any data?

Information

• If the y-axis is variable, is an indication of spread (error bars) shown?
• Are grid lines required to read data (if not, then remove)?

Scale

• Are units increasing left to right (x-axis) and bottom to top (y-axis)?
• Do all charts use the same scale?
• Are the scales contiguous?
• Is the order of bars in a bar chart?
• Are any bars of appropriate width and spacing?

Overall

• Does the whole chart add information to reader?
• Are there no curves/symbols/text that can be removed and still have the same information?
• Does the chart have a title or caption (not both)?
• Is the chart self-explanatory and concise?
• Do the variables plotted give more information than alternatives?
• Is the chart referenced and discussed in any accompanying report?

Reference