1.3 Displaying Quantitative Data: Dotplots Part 2

When you describe the shape of a dotplot or other graph of quantitative data, focus on the main features.

Look for major peaks, not for minor ups & downs in the graph.

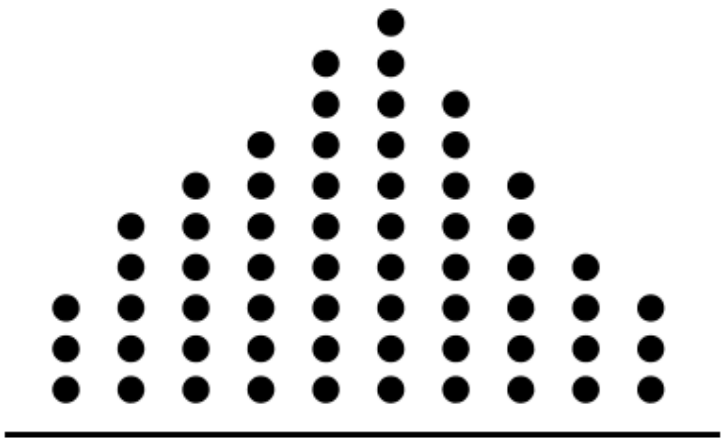
Look for clusters of values and obvious gaps.

Decide if the distribution is **roughly symmetric** or clearly **skewed**.

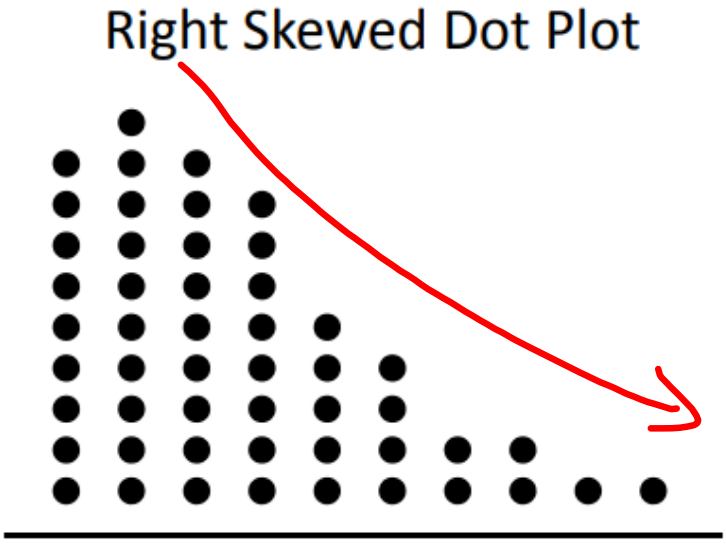
The direction of the skewness is toward the long tail, not the direction where most observations are clustered.

A distribution is roughly **symmetric** if the right side of the graph (containing the half of the observations with larger values) is approximately a mirror image of the left side.

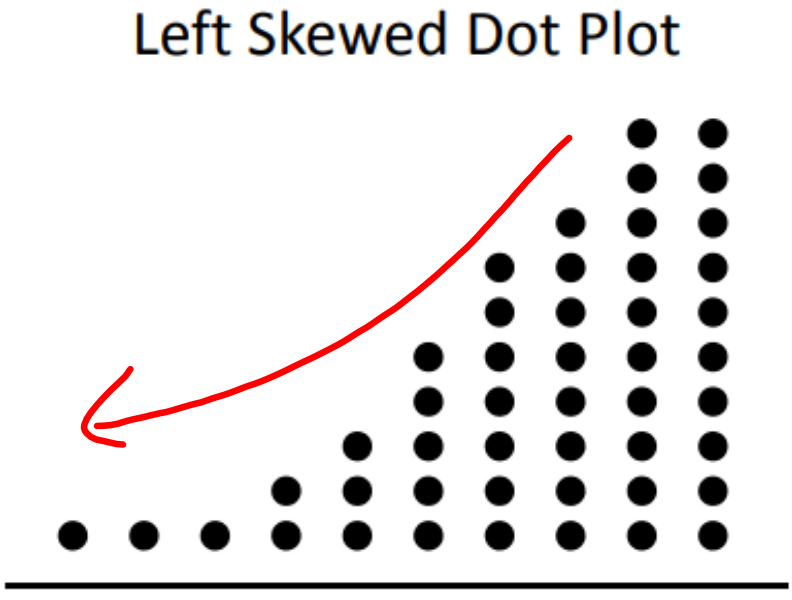
Symmetric Dot Plot



A distribution is **skewed to the right** if the right side of the graph is much longer that the left side.

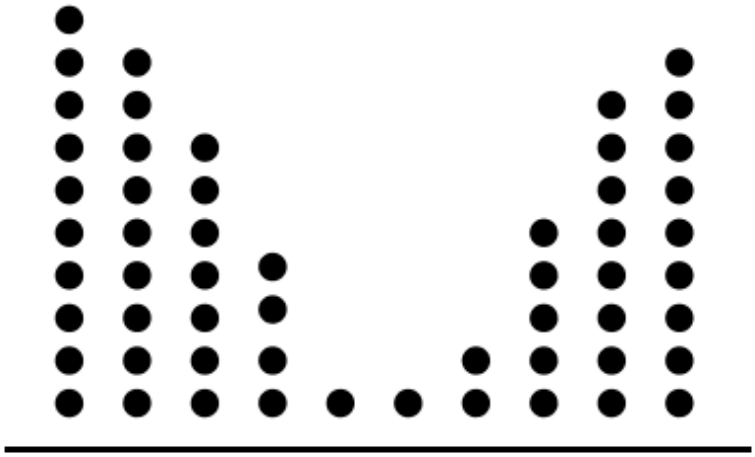


A distribution is **skewed to the left** if the left side of the graph is much longer that the right side.



Some quantitative variables have distributions with easily described shapes. But many distributions have irregular shapes that are neither symmetric nor skewed.

Bimodal Dot Plot



Describe the shape of the distributions.