Skill Builder Series

Graphs

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Agenda

- Graphs
- SPSS and Excel
- Open up for questions
Why is this important?

- Graphs are a visual representation of the data
- A picture is worth a thousand words
What do you need to know?

• The type of graph is determined by the variable types.
Bar Graphs

The data are divided into groups
Each group has a bar with a height consistent with the frequency within that group
Bar graphs can help identify the distribution of discrete variables
Pie Charts

- Pie Charts can be used to demonstrate how a unit, such as all the money in a budget, has been divided.
- Each slice of the pie is sized in proportion to the percent of the whole that a single piece represents.
- This works when you are looking at the distribution of money in a budget or causes of death in a population.
- The total percent of all the slices of the pie must be exactly 100.
Line Graphs

- Most useful when displaying trends or changes over time.
Box and Whisker Plots

- Box – Whisker plots are useful for picturing the median and quartiles associated with a continuous variable.
- The box represents the middle 50% of the sample (between the 25th and 75th percentiles).
- The vertical line in the box represents the median.
- The horizontal lines above and below represent the values in the 75th to 100th percentiles and the 0 to 25th percentiles.
- It can give you a quick idea of the distribution of the data.
Histograms

- Histograms use the area of adjacent bars to describe a continuous variable.
- They are very common and can also suggest whether data is distributed Normally.
- When looking at a histogram of a Normal distribution there are 2 tails where the values occur less frequently. If one tail is markedly longer than the other we say that the distribution is skewed.
- The histogram can be skewed to the left (or negatively) or to the right (positively).
- The direction of the skew is the direction of the longer of the 2 tails.
Demo
Thank you for attending!

Additional questions?

E-mail: ASCTutoring@Waldenu.edu or Statsupport@Waldenu.edu

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