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ECO 602

Week 3 Reading Questions

1. Which of the plot types show every data point?

**Scatterplot, Cleveland Dotplots, QQ-Plots, Coplot**

1. Which of the plot types show aggregated or summarized data?

**Histogram, Boxplot**

1. Explain what a conditional variable means in the context of graphical data exploration.

**A conditional variable shows the relationship of x and y given z. Meaning, how does x and y’s relationship change given a third variable. When graphically shown it shows you the relationship of the two variables you’re interested when constrained by a third variable.**

1. List at least three of the common measures of spread or dispersion that were mentioned in the readings.

**Variance, Range, Coefficient of Variation**

1. Choose two of the measures in your list and explain how they capture different aspects of the concept of spread.

**Variation shows a uninterpretable value showing how much you expect a particular value to differ from the actual mean. A range is every value measured from lowest to highest.**

1. List two of the important reasons to perform data exploration (numerical and/or graphical). For each of the two reasons you identify, describe the quantities or plots you would use and the insight you would gain.

**It is important in spotting outliers. I would use a scatterplot to visualize each point of data to see if there are any that are placed far away from the others. I would know that I need to look at that data and go from there. Data exploration could be useful in showing relationships that you hadn’t considered. I would use a histogram to see the distribution of values for each variable. It would give me an idea of where my low and high proportions are.**