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EDG500 Educational Research and Statistics

Week 3 Video Critique

Video 4 Measures of Center

1. What *variable* is examined in comparing men and women workers at the beginning of the video?

The variable examined in the video *Measure of Center* is Americans' weekly salary or wages by gender.

2. Would you describe the shape of the distribution of men's weekly wages as symmetric, skewed to the left or skewed to the right?

The shape of the distribution of the men's weekly wages skewed was to the right.

3. What is the most important difference between the distributions of weekly wages for men and for women?

The most important difference between the distributions of weekly wages for men and women was the disparity in wages. The median wage for men was $865 weekly while the median wage for women was $692 weekly. The women's wages were 20% less for comparable worth.

4. Would a few very large incomes pull the mean of a group of incomes up, down, or leave the mean unaffected?

A few very large salaries would pull the mean of a group of incomes up. It would cause the average income to appear higher than it actually is.

5. Would a few very large incomes pull the median of a group of incomes up, down, or leave the median unaffected?

A few very large salaries would not pull the median of a group of incomes up or down. The median income would remain unaffected.

Video 5: Boxplots (Not Required)

1. What variable is used to compare different brands of hot dogs?

Calories per dog is the variable used to compare the different brands of hot dogs.

2. What name do we give to the value for which one-quarter of the data values falls at or below it?

The name given to the value for which one-quarter of the data falls at or below it is the Q1 quartile.

3. What numbers make up a five-number summary?

The numbers that make up the five-number summary are the minimum, Q1 (quartile one), the median, Q3 (quartile three), and the maximum.

4. How do you calculate the interquartile range?

The interquartile range is calculated by determining 25% below the median for Q1 and 25% above the median for Q3.

5. Boxplots show that poultry hot dogs as a group differ from all-beef hot dogs. Compare the distribution of calories between the two types of hot dogs.

The distribution of calories in beef hot dogs is much higher than in poultry hot dogs. The top of the interquartile range for the poultry hotdogs is lower than the bottom of the interquartile range of the beef hot dogs.