EXCEL 2010 VIDEO #18
Frequency Distribution Shape, Histogram Skew & Sparklines
(Running Time 15 minutes, 05 seconds)

LEARNING EXPECTATIONS: The graphic displays shown in the video are called *histograms*. Histograms are similar to dot plots in appearance, and serve the same function, that being to visually observe center, spread, shape, and potential outliers. In this video, the emphasis is on shape. Histograms present data distributions for variables measured in an interval or ratio scale. Soon we will learn how to create this graphic display using Excel 2010.

Notice the term "bin" which refers to the groups of responses (e.g. test scores 30 up to 45; height 6 up to 7; $150,000 - $300,000). The "bin width" is measured by the difference between the high and low values that define each bin (e.g. bin of $150,000 - $300,000 has a bin width of $150,000; bin width of 30 up to 40 points has a bin width of 15 points).

In every histogram shown, notice that all bins are made the same width ($0-$150,000, $150,000-$300,000, $300,000 - $450,00 etc.).

Distinguish between the three most common terms used to describe the shape of a distribution – (1) symmetrical, (2) left skew (aka negative skew) and (3) right skew (aka positive skew).

Recognize the impact skew has on the mean of a distribution.

Recognize multi-modal distributions.

FYI: Around the five minute mark, do not worry about the professor's references to "different samples" (explaining why the histograms keep changing slightly) or to "probability" references.

Know the term "bell-shaped".

Place sparklines above columns of a table.

STOP VIEWING AT THE 10:05 mark of the video. Be ready for a short quiz on Monday. Carefully study the video and these notes to prepare.

Enhanced Learning: Watch the remainder of the video to learn how to create a scale for the sparkline histograms. The technique has broader applications that would separate a proficient user from an advanced user.

Business Statistics Mr. Nelson

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