

1 Getting Started

2 Measures of Skewness

Skewness, as the name suggests, measures the skewness of a distribution. The MS Excel formula is as follows:

$$s_k = \frac{T}{(T-1)(T-2)} \frac{\sum_{i=1}^T (x_i - \bar{x})^3}{\sigma^3}. \quad (1)$$

Note that if mean = median = mode, the skewness is equal to 0.

Exercise 2.1. *Stars and Mediocres Once More.* Using the salaries of the Redskins defensive players calculate the skewness. Interpret the results.

3 Kurtosis

Kurtosis measures the peakedness of a distribution. The MS Excel formula is as follows:

$$s_k = \frac{T(T+1)}{(T-1)(T-2)(T-3)} \frac{\sum_{i=1}^T (x_i - \bar{x})^4}{\sigma^4} - \frac{3(T-1)^2}{(T-2)(T-3)}. \quad (2)$$