

TECHNICAL TERMS FOR VARIABILITY

- **homogeneous / homogeneity** ~ the terms used to describe a set of numerical observations that are very much alike. Absolute homogeneity would exist if every observation in a data set were identical. Since that would be quite unusual, whether or not to call a set of observations homogeneous is a judgment call but one that could be based on other information such as the statistics that convey information about variability, viz., the **range, variance**, and the most commonly employed indicator, the **standard deviation**. Other things being equal, if these values are small, than the data may been described as homogeneous, ...versus the state described by the terms...
- **heterogeneous / heterogeneity** ~ the terms used to describe a set of numerical observations that are dissimilar, not alike. Heterogeneity exists along a continuum insofar as its upper limit is not necessarily fixed. Whether or not to call a set of observations heterogeneous is a judgment call but one that could be based on other information such as the statistics that convey information about variability, viz., the **range, variance**, and the most commonly employed indicator, the **standard deviation**. Other things being equal, if these values are large in a data set, then the data set may be described as heterogeneous. The rule of thumb in nature when it comes to numerous quantifiable entities such as the size of apples, human brain weights, physical stature of adult males, IQ scores, *etc.*, is that heterogeneity prevails.