1023-J5-1459 **Christopher J Lacke*** (lacke@rowan.edu), Mathematics Department, 201 Mullica Hill Rd., Glassboro, NJ 08028. *Using Graphs To Assess Normality When Performing a t-Test for a Population Mean.*

One of the major underlying assumptions in a t-test is that the data come from a normal distribution. Determining whether this assumption is reasonable is made easier with a goodness-of-fit test, such as the Shapiro-Wilk test. Since the typical first semester course does not get to this test, graphical methods are of primary importance in this analysis. In this talk, we will discuss an exercise that we use to teach students the relationship between various types of graphs: the normal quantile plot, histogram, boxplot, and dotplot, and a variety of distributional patterns, for assessing the normality of the data. We will then describe how these can be used to assess why a distribution is nonnormal, and how the various types of nonnormality can be overcome by the robustness of the t procedures. (Received September 26, 2006)