

Homework 1

Psychology 311

Instructions. Answer the following questions. Show your R code, your input, and your output. Feel free to email me for hints if you get stumped.

1. The file *mlb_salaries_86_07.csv* contains major league baseball player average salaries by team and league for the years 1986 and 2007, for teams that existed in both years.
 - (a) Describe the distribution of team payrolls in 2007 using numbers. Specifically, include the mean, median, standard deviation, skewness and kurtosis, separately for the two leagues. Try to characterize any meaningful numerical differences between the leagues
 - (b) Do side-by-side boxplots of the 2007 data for the two leagues. What do they show?
2. Using the data from the previous problem, pretend that, rather than representing an entire statistical population, they represent independent samples of size n from a statistical population. Then use the **GeneralizedT** routine discussed in class to test the following null hypotheses:
 - (a) The average 1986 salary for the National League was equal to the average 1986 salary for the American League.
 - (b) The average 2007 salary for the National League was equal to the average 2007 salary for the American League.
 - (c) The change in salary from 1986 to 2007 is equal for the two leagues.