

1. Several weeks ago I asked you to collect (and continue collecting) data on football scores and betting lines on football games. By now, I hope, you should have 100 or so games. Though not inherently of interest in political science, I think this is an example of subjective probabilities and the aggregation of information.

- (a) Construct a database with all of the games you have collected. Describe the data you have collected. What are the variables? What are some of the basic statistics?
- (b) It is sometimes conjectured that the home team has an advantage. Using the actual scores, measure the average margin of victory for the home teams. Test whether this margin exceeds 0.
- (c) Gambling involves many trades and as such should be an efficient market. This conjecture means that on average the spread reflected in the betting line should equal the actual point spread observed in games. Test for the difference between the means of these two random variables.

2. Bulmer. Exercises 10.1, 10.2, 10.5, 10.6

3. Snedecor and Cochran. Example 6.3.3, Examples 6.9.1, 6.9.3, Example 6.12.1, 6.12.2, and 6.12.3, Examples 6.13.1, 6.13.2, and 6.13.3.