

Professor Robert A. Miller
Carnegie Mellon University
Strategic Corporate Management
45-870N M3 2013

ASSIGNMENT 1

This assignment is worth 10 percent of your final grade, and is due this evening (Monday) at 11:55PM January 7. Please email me an electronic version of your report in pdf form before the deadline at ramiller@andrew.cmu.edu.

The purpose of this assignment is for you to get your hands dirty in an initial foray into data analysis. The data for this assignment comes from the results of the class experiment posted at the course website at:

http://comlabgames.com/45-870N/instructor/01_assignment/assignment.html

I recommend that you form small groups to brainstorm and critique each other. Groups of up to four are admissible (in which case all students will be awarded the same grade), but no more than four in a group is permitted.

Your completed assignment should be a short technical report of up to about three pages; any accompanying tables should be fully explained in the text, and all claims should be supported with evidence and tight reasoning, as appropriate. I recommend a using one paragraph to answer each question, numbering the paragraphs so that they correspond to the question numbers.

The data for the Ware and National game are taken from the class data from Mini 4 2012:

1. What is the empirical distribution of Ware's choices?
2. What is the empirical distribution of National's choices?
3. Given the empirical distribution of National's choices, what is the best response of Ware?
4. Give the empirical distribution of Ware's choices, what is the best response of National?

The data for the Pepsi and Coke game are taken from the same Mini 4 class:

5. What is the empirical distribution of Pepsi's choices?
6. What is the empirical distribution of Coke's choices?

7. Given the empirical distribution of Coke's choices, what is the best response of Pepsi?
8. Give the empirical distribution of Pepsi's choices, what is the best response of Coke?
9. Explain why the best response of Coke does not depend on the empirical distribution of Pepsi's choices.
10. Given the best response of Coke, what is the best response of Pepsi? Compare this with your answer to Question 7 and explain.