

Assignment 3: Data Analysis in Freakonomics

The Freakonomics book provides several examples of using unique and unusual sources of data to resolve important “management” questions. Pick **any one** of the following three examples from the book and answer the questions that follow. Your grade will be based on the accuracy and detail with which you successfully include in your paper key elements that follow.

- A) Were Chicago school teachers cheating?
- B) Does legalizing abortion affect the crime rate?
- C) What factors affect a child’s performance in school?

Key Elements:

1. Clearly state the management dilemma and management question that led to the research question
2. State the null hypothesis and alternative hypothesis (or hypotheses) for the study
3. Provide the following details on the nature of the dataset used
 - a. What variables in the data set served to answer the research question?
 - b. What were the strengths of the data set in addressing the specific research question?
 - c. What were the weaknesses of the data set in answering the specific research questions? (bring in issues discussed in class related to sampling, data reliability, construct validity, etc.)
 - d. What were the limitations of the data set in getting at the core research question at hand? (what important aspects of the question did the data set *not* address?) You may also identify the problems with the initial data set that were addressed with additional data or analyses.
4. Explain how the data set(s) were analyzed to answer the research questions (talk about the analysis that was used and why it was appropriate analysis)
5. Provide at least one alternative explanation for the results of the initial data analysis (what other factors could plausibly explain the results of the initial analysis?)
6. Provide a brief explanation of additional data or analyses that helped reject the alternative explanations
7. A discussion of correlation vs. causation with respect to the analysis. Did the analysis demonstrate causation? If not, what additional analyses were undertaken to increase the confidence in the results? [NOTE: I recognize that some of this may overlap with Q6]

The paper should be no more than 3 single-spaced pages.