Advice on Research Paper for Statistics for Economics: Format for Writing the Paper*

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Introduction

This project is to be culmination of a semester's work. Other than familiarizing you with coming up with interesting research topics, it will incorporate all that you will learn in class this semester. Keep in mind that by the end of lectures, you will have learned many statistical techniques, such as identifying variables and data, summary statistics, regression, and hypothesis testing. In addition, this project will require learning some technological skills and practicing your presentation skills. These techniques will help you address your question of interest. Your projects will be graded based on:

1. Consistency: Did you answer your question of interest?
2. Clarity: Is it easy for your reader to understand what you did and the arguments you made?
3. Relevancy: Did you use statistical techniques wisely to address your question?
4. Interest: Did you tackle a challenging, interesting question (good), or did you just collect descriptive statistics (bad)?

Be selective with computer output to help clarity. If you are using techniques we learned in class, you do not have to re-explain the techniques. That hurts clarity. If you are using techniques that we did not cover in class, you should definitely explain the techniques. That is clarity!

Headings can convey the major topics discussed in your paper. A research report typically contains four basic components:

1. Statement of the problem that gave rise to the research
2. Discussion of how the research was designed to clarify the problem

*Source: http://janda.org/c10/Research%20papers/PaperGuide.htm

3. Analysis of the data produced by the research

4. Summary and conclusion of the study

Although you could include those sections in your report without separate headings, the underlying logic of your paper will be readily apparent with headings that identify its basic components: (1) the problem, (2) research design, (3) data analysis, (4) summary and conclusion.

To help me evaluate your papers for the 100 points that they can earn (15% of final grade), please follow the outline explicitly in writing your papers. They will be scored as indicated under the four section headings.

1 The Problem (10 points)

Begin by stating briefly the intellectual concern with the topic, indicating why it is worthy of study. For example, does the topic reflect an established interest (e.g., explaining voting turnout), or does it pertain to a relatively new area (e.g., the changing role of Hispanics in politics)? To emphasize the ongoing nature of research, each paper should cite at least one previous study or publication relevant to your research.

You can either cite your references in footnotes (giving author, title, and publication particulars), or you can cite the author and date in parentheses within the text. For example, (Tufte, 1974: 314) -- and then give the complete citation under "References" at the end of the paper:

- Tufte, Edward R. (1974) Data Analysis for Politics and Policy. Englewood Cliffs, New Jersey: Prentice-Hall.

2 Research Design and Hypotheses (20 points)

This section should translate the intellectual concerns expressed above into your research. Indicate here the nature and source of your data (i.e., state the data set that you are using in your analysis), the operational measures of your theoretical concepts, and any controls for other factors affecting your dependent variable. For example, do you expect the hypothesized relationship to hold across sex and race (for individual-level data) or across types of political systems (for national-level data)? You must also formalize your hypotheses in this section.

3 Data Analysis (50 points)

Report here the results of your statistical tests. In most cases, your data should report tabulations of statistics. If you use ordinal or continuous data, your statistics will involve correlation coefficients, regression coefficients, or results of t-tests or F-tests. Do not simply accept and report the format of

the computer printout. That's not very classy. Instead, reformat the data into tables like those in the professional journals. Take some care in reporting your tables. Provide informative titles. Be sure to include the Ns on which any percentages are based.

Statistical tables should contain all the information that the reader needs to analyze the test. Your job as writer is to point out the key features of the analysis, not to repeat all the numbers in the tables. The data are in the table; the text should be used to summarize its particulars.

Please report correlations and slopes (if you employ regression analysis) only to the second decimal point. Do not slavishly reproduce them to the ultimate decimal point from the computer output.

4 Summary and Conclusion (20 points)

This section should return you to the problem raised at the beginning of the paper. It provides the link between your narrow data analysis and the broader intellectual concerns with which you began. You might start by summarizing the results of your statistical tests and determining whether your research supported or contradicted prevailing theory. If your hypotheses are supported, how powerful is the theory? That is, how much variance are you explaining in the dependent variable? If your research fails to support the theory tested, what are the possible sources of failure? The theory itself? The presence of confounding variables? The inadequacy of the data or the way the variables were measured? The basic research design? If you see weaknesses in your research, here is the place to comment and perhaps make suggestions about future research.