Empirical Project: Suggested Outline

After you have analyzed your data, then you need to report your results. Here is my suggestion, how to organize the paper. (This is only one possibility; you may write the paper in the way that you think is best.)

**Introduction:** Explain your question and hypothesis. Tell me why this question is economically important. Tell me a little about related theories or empirical research.

**Data:** Tell me what data you use, and what variables will help answer this question. It is often good to report a table of “descriptive statistics”: a list of the variables that you use, their means, and their variances. [Note: sometimes your variables will not be exactly what you wanted, because the data don’t exist. Explain why you used the variables that you did.]

**Estimation:** Explain what estimation technique you use, and why. [Note: sometimes you won’t have the time or ability to do everything that you should have done. Explain why you did what you did, and why you omitted what you omitted.]

**Results:** Estimate the problem, and report results. Show a table with estimated coefficients, and also discuss them. Test your hypothesis formally. Do some appropriate post-estimation tests.

**Conclusions:** Interpret your results. Tell me the answer to your initial question. Relate this back to the theory in the introduction.

**Appendix:** Include at least a log file of your results; maybe also the Stata “.do” file.

The paper will probably be seven to ten pages (*not including* the tables and appendix). Write it as if I know nothing about the topic (except for the econometric techniques). In the end, your results may confirm or reject your initial hypothesis. I don’t care. In the class, I am not grading you on how well you guess the answer to some question, but I do want to know whether you can answer it using data.

Also, you will have to make some judgment calls during your analysis—determining which observations to drop, how to recode variables, and so forth. I’m happy to provide advice on these matters, but generally, you should trust your instincts. Do things in a way that makes sense to you, and then explain this in your paper.

Finally, if you use text or ideas from other sources, please document them with the correct reference.
My Economic Study
by Stephen Lich-Tyler

In this paper, I analyze the effects of have children on women’s incomes. Across countries, higher earnings are associated with lower fertility rates. This question is important for economic development, and the theory of a “Malthusian trap”...

Specifically, I will test whether...

In order to do this, I use data from the Census of Mongolia. I look at women between the ages of fifteen and sixty. The dataset contains information on their labor earnings, number of children, and religious preference... A description of the data appears in Table 1. As we see, roughly half of the population is Catholic, while twenty-two percent belong to other Christian denominations...

Because the number of children is endogenous (it may depend, in part, on income), I must use instrumental variables. My choice of an instrument is religious preference. Since all Popes (except for John Paul I) have forbidden the use of contraception, Catholics tend to have larger families. Table 2 shows average family size by religious preference...

My IV estimates are in Table 3. The coefficients show that increasing the number of children by 1 increases annual earnings by 6123.89 Mongolian tugriks (approx. 56.45 pesos). However, since the t-value of this statistic is 1.02, at the 95% confidence level I cannot reject the hypothesis that... After estimating the problem by IV, I do a Hausman test to see whether these results are different from OLS estimates. At the 95% confidence level, I...

In this paper, I found no clear relationship between income and fertility for Mongolian women. My result contradicts the idea in development economics that there is a “Malthusian trap”...