

## ECON 196, Fall 2011

### Paper Guidelines

Writing a good economics paper is both an exciting and a nontrivial task. It requires a sustained effort in identifying an important question and in developing a credible model to think about that question or a testable hypothesis to answer it. In many cases it may require collecting data that gives the opportunity to test the hypothesis that you develop.

You are encouraged to structure your paper in four parts: introduction, literature review, body, and conclusion. A brief abstract of no more than 100 words should precede your paper.

#### Introduction

Identifying a significant and well formulated question is the single most important part of the research process and the most difficult as well. A good research question has to be concise (remember, you are writing a 15-page paper, not a book), feasible and important. Choosing a research question requires balancing importance and feasibility. Feasibility means tractability for theoretical research and data availability for empirical research. Whenever you come up with an idea for a research question, always try to think about a critic sitting in front of you asking "Why should I care about this?" Consider this question to be a first filter for your research question. Identify a well-defined research question. The introduction is where you (1) present the research question, (2) motivate why it is important and briefly outline (3) how you go about answering it and (4) what your key results are. Be sure to be clear how your research question relates to material learned in Econ 196, and why the existing literature may not answer the question adequately.

To write a successful introduction, you will need to have read and understood previous academic work by economists (or other social scientists) that relates to your research question. You should also be clear, in your own mind and in what you write, about the limitations of this literature. You should also be clear on what you can contribute.

#### Literature Review

The literature review consists of outlining relevant work by other researchers. The word "relevant" is key. A literature review is not a laundry list, and you should mention only the most relevant work. Avoid mentioning all papers that you have encountered. A good way of identifying the relevant literature is to read a good survey article which summarizes the current literature, as well as research questions that need more attention (look for example at the *Journal of Economic Literature* or the *Journal of Economic Perspectives*). Be sure to search the EconLit database for relevant literature, too. You are encouraged to look at the review of the literature in the articles on the syllabus to get some sense of the length and amount of detail needed. A summary of a long list of previous works rarely constitutes a good literature review. A successful literature review synthesizes and organizes the existing literature around some themes that are relevant to one's research question. Throughout the literature review, keep your research question in mind and keep your readers focused on it.

## Body

This section is where you present the meat of your research. Here, we ask you to think like a researcher and propose an extension to the existing literature that addresses the limitations you identified in your literature review. The extension could consist of a theoretical model that explains some observed phenomenon, e.g. an item of interest you may have observed in the *New York Times*. It could also be an adaptation of an existing model, preferably providing an interesting twist. Alternatively, your extension could be an empirical test of an economic hypothesis. Both theoretical and empirical work is important! While we do not expect a full-fledged research paper, i.e. you may not be able to solve your model completely or to perfectly conduct the empirical test you suggest. We do expect to see a genuine effort at putting together an original contribution, and the grading will reflect this.

### *Empirical papers*

If you decide to write an empirical paper, the body should include a brief theoretical model motivating the hypothesis you intend to test. As your contribution is empirical, the model does not have to be original and can be adapted from existing models in the literature (with proper citation, of course). Discuss the nature of the data they will be using to test your hypothesis. Provide a data appendix where you discuss in sufficient detail (1) what type of data are used, (2) where it was obtained and (3) any complications regarding its collection. Any shortcomings of the data and any issues regarding reliability of the data should be mentioned here. Provide a detailed discussion of your empirical results. Clearly define the variables used and categorize them as endogenous or exogenous. When endogeneity issues arise, explain how they are addressed (e.g. via instrumental variables). Can you clearly state what variation in the data is used to identify any measured effects? Identification issues are key in empirical work and should be discussed in detail. Any assumptions made for identification should be stated clearly. You may find it useful to list the potential problems that a critic might pose about selection or endogeneity and try to answer them carefully, while openly pointing out the limitations of your study. If relevant, detail the robustness checks you have performed. For example, how do you know that your results do not disappear when you omit some arbitrary control you happened to include in your regressions? What conclusions do you draw from your empirical results? Try to think whether there are alternative explanations of that may be driving your results. Are these alternatives more or less plausible than your own conclusions? Have you come to the right conclusions?

### *Theoretical papers*

Theoretical papers typically introduce models that help gain insight into economic phenomena. While economic models do not necessarily have to be mathematical, it has become the norm since the 1950's and 1960's that they should be developed mathematically. Doing so ensures that they are self-consistent. Paul Krugman argues in favor of mathematical modeling in the following piece:

<http://web.mit.edu/krugman/www/dishpan.html>.

The author of a theoretical paper has much latitude when setting up the model. Typically, mathematical arguments are used to derive results from a set of assumptions, most often by "solving" for equilibrium of some sort, or a steady state. The author may be interested to know how changes in the values of various parameters affect certain variables. In other cases, the author may be interested to know how the system behaves in the long run. A good theoretical model will capture some aspect of reality, even if it does not describe it precisely (a model can almost never be a perfect description). The value of a model is in the insights it affords us, which tends to hinge on the plausibility of the underlying

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assumptions. Are your assumptions plausible? What insight can we gain from your model? Be sure to discuss the context in which your model is applicable, i.e. when and where are the insights you draw from your model applicable? Would you take your own advice if you were a policymaker?

## **Conclusion**

Conclude your paper with a neat summary of your results. In addition, briefly state directions for further research and, if applicable, try to explain the policy relevance of your findings.

## **Useful Things to Read**

Some professors provide useful advice for their PhD students to get started with their dissertations. You might find some of this advice relevant to you as well. Some examples of this advice are:

- Michael Kremer has a nice checklist to write a paper (both empirical and theoretical):  
<http://www.economics.harvard.edu/faculty/kremer/files/checklist.pdf>
- Hal Varian offers some good advice on how to build an economic model in your spare time:  
<http://people.ischool.berkeley.edu/~hal/Papers/how.pdf>
- David Levine provides some advice for writing a dissertation. I especially like the section about how to find a good research topic:  
[http://faculty.haas.berkeley.edu/levine/cheap\\_advice.html#dissertation](http://faculty.haas.berkeley.edu/levine/cheap_advice.html#dissertation)
- Don Davis also advises his students on how to get started on research. On the first couple of pages of "Ph.D. Thesis Research: Where Do I Start?" he gives some great tips on how to know whether your research topic is alright:  
<http://www.columbia.edu/~drd28/Thesis%20Research.pdf>.