

Economics 415: Market Design Paper and Presentation Assignment

Form groups of 1-4 persons in which to do the paper and presentation. The paper and presentation should apply theory and ideas from the course to some kind of real world data. A pure library project is not acceptable. Your data may be from any auction or related strategic setting. Above all, I want you to get practice seeing in context the processes we learn about in class, and applying theories to this experience. You are welcome to compare theories in light of your data, and to critique theories.

Choose a topic that interests you, something that you want to learn more about; it will lead you to an interesting paper. Focus your research question or questions. A loosely defined paper is very difficult to write. I encourage you to consider topics related to later parts of the course, even though we haven't gotten there yet. Often the best projects are those that you have had some personal experience with.

A prerequisite for writing a good paper is having something to say. This will come from your research. Once you settle on a general topic, conduct preliminary research to try to find the feature or issue you wish to address. Do not be concerned if your feature or issue seems too narrow. You will find that with further study, there is much to say about even the most narrow topics.

A useful way to organize the paper is the classic “hypothesis/evidence” format: state your hypothesis in the introduction and then present the evidence in support of your hypothesis. It will take you some time and much study before you settle on a hypothesis. For example, you might start your research with the notion “eBay is neat.” This is not an hypothesis. After substantial study you then form the following hypothesis: “bid sniping is a rational response to eBay’s hard auction ending time.”

Paper proposal

Each group must submit a one-page project proposal by **March 16, 2004**. You may talk to me about project ideas before you write your proposal, or after you get back my comments on your proposal. Your proposal must include the following elements: (1) a clear statement of your research question or questions, (2) a list of substantive articles (beyond the assigned readings) that you intend to use in developing your paper, and (3) a description of how you intend to gather and analyze data to answer your research question. You might find relevant readings by searching keywords on the Web or in the ABII or EconLit database at the library. I will be happy to help you focus your ideas and to direct you to reading and resources.

Paper structure

Your paper should be written like a research report. It should have six labeled sections, and be approximately 12 pages in length. Study research articles in the applied journals for examples of paper structure.

1. Introduction: A brief statement of your research question, or the problem you are analyzing, and a discussion of the relevant literature and theory.

When you refer to a publication in the text, give the last name(s) of the author(s), the year of publication, and the page number if you are using a direct quotation. For example:

Milgrom (1995) shows that . . .

Studies of experimental auctions (Kagel and Roth 1995; Smith 1984) show that . . .

Roth (1995:18) sees “a number of distinguished game theorists among the earliest experimenters.”

2. Method: A brief description of the methods you used to collect information about your research question.
3. Data: An overview of the data you collected. For many papers, the “data” will simply be relevant source documents found from Google or other searches. For others, the “data” will be actual numerical data from the field or experiments. Still others may use survey data from interviews.
4. Analysis: An analysis of your data, or your experience, in light of the theory and literature. Discuss the answer that the data offers to your research question, reporting limitations in significance due to sample size, etc. Results sometimes don't come out as we anticipate. Assuming you made a good faith effort in designing your project, that is just fine. In your analysis section, think and write about why you may have gotten the results you did. If you have chosen to analyze some sort of case study, set forth your analysis, offering any recommendations for change or a rationale for the current process or structure.
5. Conclusion: A brief summary of the conclusions you have drawn, including any implications for policy or practice.
6. References: A list of articles referenced in your text should appear in this section. Here are some examples that demonstrate appropriate style:

McAfee, R. Preston and John McMillan (1987), "Auctions and Bidding," *Journal of Economic Literature*, 25, 699-738. (an journal article)

Maskin, Eric S. and John G. Riley (1989), "Optimal Multi-unit Auctions," in Frank Hahn (ed) *The Economics of Missing Markets, Information, and Games*, Oxford: Oxford University Press, 312-35. (a chapter in an edited book)

Fudenberg, Drew and Jean Tirole (1991), *Game Theory*, Cambridge, MA: MIT Press. (a book)

The final paper is due **Tuesday, May 2**. There will be no extensions.

Group presentation

All groups will be expected to make a brief presentation concerning their project during the last two weeks of classes. Presentations begin **Thursday, April 27**. We will divide the time among the number of groups we have. Presentations will be 8 to 12 minutes in length, plus questions. Try to come up with a succinct and interesting way to convey to the class what your group learned through its project. I encourage you to use visual aids, such as a PowerPoint presentation. (See the short document on really bad PowerPoint.) You might want to hand out an executive summary of your findings and conclusions. Be creative. I hope that the spirit of the class will be one of shared learning.

Possible Topics

Auctions of spectrum, electricity, natural gas, emissions permits, ...