

# EMPIRICAL IO - INTRODUCTION

## ECO 384K: INDUSTRIAL ORGANIZATION

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## Outline

- Syllabus and course overview.
- Helpful hints for graduate students.

## Goals

### Welcome to Empirical IO, ECON384K!!!!

- Available at:  
*<http://www.eugeniomiravete.com/Courses/1.1447/EC384K.htm>*.
- Intended for Ph.D. students interested in conducting research in empirical IO.
- Focus on research frontier.
- Main goal: Provide interesting research topics and facilitate your transition to the dissertation writing stage of your doctorate.

## Topics

We will cover three active areas of research:

- Testing for Asymmetric Information.
- Vertical Contracting.
- Dynamic Oligopoly Models.

## Requirements

### Grading:

- Class presentation (30%).
- Referee reports (45%).
- A three-page final project (25%).

## Requirements

This class will be rather demanding in an unusual way.

- Read the papers *before* class.
- Class participation.
- Seminar attendance.
- Computing languages.

## An Opportunity

### COMPLEMENTARITY

You should consider the first half of Econometrics III as a building block for this IO course. Taken together you will be in an ideal position to conduct research on dynamic models.

# Philosophy

## LAST CALL

This is the last chance to be exposed to the frontier in class!

# Philosophy

## WARNING

But it would be easy to shirk!

## My Goal

To put you on a path towards a dissertation emphasizing good judgement.

- In case it is not yet obvious to you, I am quite interested in conducting some research on dynamic models.
- Would like to have an active group of students working on this area.
- Need cooperative brain power.
- Writing seminars.
- Advising.

## Paper Presentations

It is a good idea to start presenting “clearly” as soon as possible.

- Think of a one hour presentation.
- The audience will ask you questions.
- I will ask you questions.
- Follow (approximately) the following scheme:
  - What is this paper about? Why is it important?
  - Theoretical contribution (if any).
  - Econometric contribution (if any).
  - Data / Institutions description.
  - Results and policy implications.

## Paper Presentations

Questions you should ask yourself when preparing the presentation:

- What is the contribution of the paper?
- How does the paper fits in the literature?
- How could the model be extended? Distinguish between major and minor extensions.
- Can you envision other industries where this model or a modified version could be estimated?

## Paper Presentations

More questions.

- What empirical methodology is employed?
  - Reduced form:
    - Are regressors really exogenous?
    - How can the model be used in other environments?
    - Can you come up with an alternative story that explains the data generating process?
  - Structural models:
    - Is the model really identified? What in the data identifies each element of the model?
    - How can the model be improved from a point of view of theory and/or econometrics?
    - What data would be needed to improve this paper?

## Referee Reports

They are selected job market papers of this season.

- You need to read current research, not just papers published in *Econometrica* 20 years ago.
- It will give you an idea of what is expected of you when you look for a job in a top university.
- Perhaps will find an opportunity to extend this research or find out what is considered important when writing a research paper.
- Get used to approach research critically and be able to argue why you agree or disagree with it.
- Get used to the least satisfying aspect of the academic life (particularly when somebody else evaluate you own work and does not put the necessary effort on it).

## Referee Reports

### Approximate structure

- Think of about 2-3 pages. In real life you will never write more than that except in very exceptional circumstances.
- Summary of the paper. Be specific. Indicate why there is, or there is not a contribution in this manuscript.
- Develop your criticism in a constructive manner but again, being specific. Point out clearly what needs to be addressed by the author and why.
- Suggests any other changes, from grammar to organization of the paper. List a set of typos and/or minor points that could be addressed but that are of less importance.
- In a final paragraph addressed to me (the editor), write a confidential evaluation of the paper. Indicate whether you will accept, reject and/or ask for a revision of the submitted manuscript. Do not be afraid of being wrong. Again, be specific.

## Final Project

### Approximate structure

- Think of no more than 3 pages.
- This is an extended abstract of some potential research.
- Identify a policy question and why it is important for economists to care about it.
- Frame it in the context of the existing literature.
- Motivate the methodology that you will use in addressing that industry / topic of research.
- Describe the ideal data that you would need to conduct such research. Since ideal data does not exist, indicate feasible sources of information that might be used to estimate such model. If possible, it should be relevant for the policy question that you identified before.
- Write a list of bullet points with the steps you intend to take in developing this research project.

## Your Goal

To get a good job / write well cited research!

- if you want to get a job at a research university, the following three attributes will determine your level of success:
  - The quality of your job market paper.
  - Your ability to communicate in an articulate manner with other people (obviously more important for business schools and liberal arts colleges).
  - The school where you come from.

# ESL

## REMARK

If your first language is not English and you wish to consider the B-School or even consulting market, you should exploit available English as a Second Language resources.

## Unimportant

Things that don't matter very much in your placement:

- Your grades.
- Being an outstanding TA or RA.
- Politics.

## Thoughts about the Job Market

- The new Economics Ph.D. market is a big matching market.
- Despite scepticism, it is quite transparent and efficient.
- It is rare that students are massively under or over placed.
- But if it happens, the market will reallocate them shortly.

## Thoughts about your advisor

- All we can do is to get other people to read your file.
- Faculty are generous in recommending students.
  - This is even more true for top departments.
  - We need to build some reputation. We are harder to get around here.
- After someone else gets your file, you are on your own. Our ability to influence the outcome is very small.
- This is true even if you believe that your advisor is a “big shot.”

## High Quality Job Market Paper

The author ask an interesting and novel research question.

- Data and questions are new and of interest to your audience.
- Rehashing the same questions with not very different results from other researchers is not a good strategy.

## High Quality Job Market Paper

The analysis is technically well executed.

- You should attempt to use state of the art methods.
- Making at least a small technical innovation in some part of the paper is a good signal to future employers (in particular at top departments: they want to be sure that you can teach graduate students).
- If you don't try hard technically on some part of your paper, don't expect your employers to give you the benefit of the doubt that you are technically up to speed.
- Clean identification.

## High Quality Job Market Paper

The paper is well written and presented well.

- Remember to write your paper for a general audience of economists, not just specialists.
- Don't skip steps of logic.
- White paper syndrome: This is much, much harder than most graduate students think.
- Budget at least 6 months for writing and polishing your results.

## Common Pitfalls

Research project starts off by making a small extension to an existing, well known paper.

- Typically, if easy, but important extensions could be made, the author would have done it already.

## Common Pitfalls

Technique motivates the empirical question (instead of *vice versa*).

- This is appropriate for a theorist or a theoretical econometrician.
- Applied empirical microeconomics is far less competitive than these fields but outcomes have a higher variance.
- When an applied economist comes up with the technique before the theory, the result is frequently that neither the theoretical innovation nor the application are very compelling.

## Common Pitfalls

Fail to produce a first draft early enough.

- The most successful candidates have a solid first draft a year before they go onto the market.
- The profession puts a high premium on polished work.
- Polishing a paper your first time out requires a considerable amount of time.

## Helpful Hints

Things to do.

- Start out simply.
- Get started right away.
- Attend a reading group and a seminar.
- Start working with an advisor.