

## ECO 307: Introductory Econometrics

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Final Paper

Due Friday, May 17, 5:00 PM

# 1 Introduction

**Purpose:** The introduction is the first section of your final paper project. The purpose of your introduction is threefold:

1. Introduce your readers to the purpose of your paper.
2. Put your contribution in context. Describe relevant background information to help your readers understand and appreciate the issues that you will be speaking to. What is already known in this field? What questions or contradictory evidence currently exist in this field?
3. Motivate your paper. Imagine your readers are reading this paper voluntarily. You need to convince them that reading your paper is worthwhile. Why is answering your research question important? What kind of decisions will be better informed if the decision maker learned about the results from this project?

### Important Elements of an Introduction:

1. *Clearly state your research question / the purpose of your paper:* This should be done very early in the introduction, but probably not the first sentence or first paragraph. Your audience will not want to continue reading if it takes them too much time to figure out what the point is for your paper. What do you hope to accomplish? Who is your audience? That is who would use or be interested in your results? What decisions can be better informed by learning the outcome of your research project?
2. *Provide relevant background information:* Bring your audience from their world to where they need to be. Provide enough background information so that your readers understand the context and motivation for your paper and form their own informed opinion on the subject. Introduce your reader to findings from other papers in this field, and pay special attention to what still needs to be figured out or what conflicting evidence there is in the field, especially as it relates to the purpose of your paper. Your background information should also help the reader understand why further investigation into this topic is important or interesting.
3. *Communicate your message in a clear and meaningful way:* Organize your discussion to build an argument or tell a story. Build an argument for why issues in this field are important or interesting. Tell a story about what is known in this field and what needs further investigation. For each piece of evidence, background information, or journal article cited, think about how it relates to the overall argument or story, and capture that in your narrative. Be careful to not let your introduction sound like a kid's letter to mom and dad from summer camp, "Then there is this... then there is this..."
4. *Ask all the relevant questions:* Have all of the relevant questions been asked? Are the questions focused on the essential issues? Think about the multiple problems, symptoms, and solutions you should try to identify and analyze.
5. *Literature review - Use existing evidence to motivate your research:* This is closely related to Point #2 above to provide relevant background information, but it concerns specifically citing other journal articles. In some written work, the literature review may be a separate section, and in others the literature review is part of the introduction, and which approach is taken is often the writers choice. For the purpose of this project, we will include the literature review as part of the introduction.

- Review relevant literature that puts your research question into context with previous research. The literature should help provide background information that helps your readers understand the issues in this field, what is currently known and unknown, and how your purpose is related to others' work.
  - Your literature review also has the purpose to help motivate your work. Other papers may have suggested that work along your purpose is important. Taken together, multiple papers may have evidence which conflicts with one another, suggesting further investigation may be needed for decision makers in your audience. Consider whether there is a case for replicating an analysis similar to another study, but for your specific population.
  - Your literature review should be *telling a story* about what is known and not known in this field, citing other research papers provides examples for the story. Think about the overall story, or overall point, that you are trying to make with your literature review. Think about how each paper you cite is related to that larger purpose.
  - Use a simple citation procedure like Lastname (YEAR). Example, "Herro and Murray (2010) find that uncertainty...." Details about the journal title, article title, and authors full names can be found in the bibliography.
6. *Introduce your reader to how you answer your research question - and justify it:* Most of these details should be put in your methodology section, but still, by the end of the introduction your reader should have a basic idea for how you plan to answer your research question. Consider including the population, the use of a survey, and a general description of the types of questions in the survey.
  7. *Communicate effectively* by not distracting the reader with grammar and spelling errors. Writing is professional and follows common rules for reporting research, i.e. sources are cited correctly, quotes used appropriately.

## 2 Methodology

textbfPurpose: The methodology / results of your final paper project has the following goals:

1. Connect the purpose of your paper (described in the introduction section) with your statistical methodology.
2. Describe the statistical methodology.
3. Report results of the statistical analysis.

Your final section (the conclusion) will connect the results of the statistical analysis to the answer of your research question / the purpose of your paper described in the introduction.

### Important Elements:

1. *Connect your variables and statistical modeling choices to your purpose:* You described your purpose in the introduction section. This section should make it clear you are taking steps that are answering your research question. It should be clear that you are answering it fully (if not, maybe you need to rewrite your research question to something more focused) and not doing other things not necessary to your purpose.
2. *Describe the variables:* What variables did you collect? How are they measured in your model? Do you have dummy variables? Describe them. Do you have variables measured in dollars, in thousands, etc. Describe these details so that the reader knows the meaning and scale of measurement for all the variables.

3. *Describe your statistical model:* Give enough detail so that the reader could replicate the analysis if he/she wanted to. They should know the full model and precisely what all the parameters and estimates are for. You may assume your reader understands the econometric theory from the class.
4. *Report your results:* Report the results from your statistical analysis, paying particular attention and space to the estimates, confidence intervals, and hypothesis tests that directly answer your research question. Do include tables and graphs as appropriate so that you display your results in an easy-to-read manner that is also easy to refer back to.

### 3 Conclusion/Discussion

**Purpose:** The conclusion section does more than just repeat the result or the introductory material. Your conclusion connects the results of the statistical analysis to the answer of your research question / the purpose of your paper described in the introduction.

**Important Elements:**

1. *Most important take-away:* The statement you make here should be closely connected to your statistical result from the previous section *and* the purpose of your paper as discussed in the introduction.
2. *Appropriate focus on the message:* Make sure your conclusion is not overly broad or too specific. Make a statement that can be fully backed by your statistical results. You should still hypothesize on more general conclusions, suggestions, or recommendations from this, just make sure you do so without over-stating your claims. It should be clear to the reader what can be said conclusively, and what what are logical arguments for generalizations, extensions, or recommendations.
3. *Reservations, qualifications, or weaknesses:* Are there reasons that your conclusion may not be correct, or that it may not hold generally? Briefly discuss these.
4. *Tie in literature:* Briefly discuss the literature that you cited in your introduction in your conclusion. You can do this multiple ways:
  - Comparing your results. Are your findings consistent with other researcher's conclusions?
  - Generalizing your results. Does integrating your findings to the existing body of knowledge help you make a more general argument or a recommendation?

**Grading:** You will be graded on your final presentation using the ECO 307 course rubrics for **Written Communication** and **Data Analysis**.