# Final Paper Project Expectation

AECN 396/896-002

# **Final Paper Project Expectation**

### Introduction (3 points)

- clear identification of what you are trying to find out (research question) [1.5 points]
- why the research question is worthwhile answering [1.5 points]

## Data description and exploration (7 points)

- the nature of the data with summary statistics table [2 point]
- visualize a few key variables in a meaningful way [5 points]

#### **Important**

Do not just present summary statistics and graphs. Discuss what you get out of them. Without any such discussions, you will get  $\mathbf{0}$ .

## Econometric methods (35 points)

The process and thought history of how you end up with the final econometric models and methods.

## Results, Discussions, and Conclusions (5 points)

- interpret and describe the results [3 points]
- conclusions [2 points]

### Details on the Econometric Method Section

#### **Data generating process**

- What variables are involved in explaining the dependent variable?
  - List all the variables both observed and unobserved.
- How are they related with each other?
  - Multicollinearity?
- What would be the appropriate functional form?
  - Non-linear impact (e.g., quadratic, log)?
  - Interactions terms?
  - Structural difference?

#### Details on the Econometric Method Section

#### **Endogeneity and Econometric Methods**

- Extensive discussions on why you may have endogeneity problems. What are the sources?
  - Omitted variable?
  - Selection bias?
  - Reverse causality?
  - Measurement errors?
- Hypothetical discussion of what econometric methods you can use to deal with the endogeneity problem
  - Randomization of the variable of interest?
  - Panel data approach?
  - Instrumental variable approach?
  - Difference in difference?
- Detailed descriptions of what you end up doing (explain the process)
  - Why do you think your approach address the endogeneity problem you identified above or not? (It is not at all a problem that you cannot solve the endogeneity problem entirely)
- Use the appropriate standard error estimation approach (heterogeneity, clustered error, etc)

# Key to writing a successful paper (high grade)

- Justify and explain everything you did in the paper!!
  - I tested the joint statistical significance of these interactions terms because ...
- Re-emphasized: I do not care about your results. What I care is the process!!